6TH CONGRESS OF THE ASIAN MEDICAL EDUCATION ASSOCIATION

Trends in Medical Education

23 – 26 March 2011, Kuala Lumpur, Malaysia

Co-Organised by:

IMU
INTERNATIONAL MEDICAL UNIVERSITY
MALAYSIA

6th Congress of the Asian Medical Education Association

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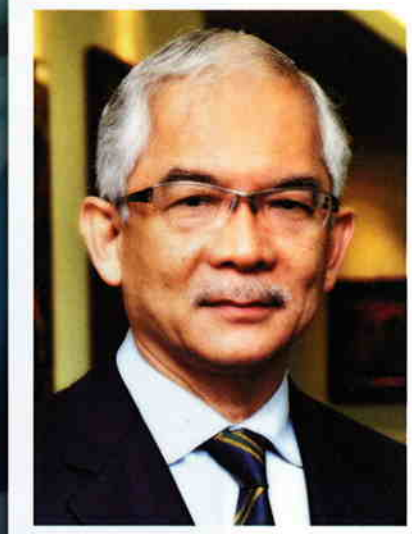


Message from the President, International Medical University

It is an honour for the university to be entrusted to organise the prestigious 6th Congress of the Asian Medical Education Association to be held from 23 -26 March, 2011. As the host of this Congress, the International Medical University would like to welcome all of you to our campus in Bukit Jalil. On behalf of the organising committee, I would also like to thank all of you for your participation in this event. This represents a unique occasion and an opportunity for us to host colleagues from around the world.

I am sure that all participants of this congress will greatly benefit from its programme with topics and workshops relevant to the theme of the conference "Trends in Medical Education".

This is particularly so as the congress will bring together an outstanding panel of prominent international and local medical educationists who will be sharing their knowledge, experiences and expertise. These medical educationists will also provide invaluable insights on many interesting topics which will address a number of very important issues in undergraduate and postgraduate education.

The scientific programme will also incorporate pre-congress workshops, a keynote address on "The Changing Face of Medical Education" by Ron Harden from United Kingdom, plenary seminars by prominent medical educationists, symposia and a Medical Education clinic.

The congress will not only provide participants the unique opportunity to exchange information and knowledge face to face through an interactive forum but also a truly energising opportunity to experience, discuss and meet with colleagues from all over the globe.

I anticipate a very informative, rewarding and stimulating congress. Such a congress with diverse international attendance would lead to strengthen cohesiveness among those whose primary focus is in education. It is hoped that the new ideas, networking and knowledge gained, will help you play a meaningful role in educating undergraduate and postgraduate students of the future.

YBhg Tan Sri Dato' Dr Abu Bakar Suleiman
President, International Medical University (IMU)

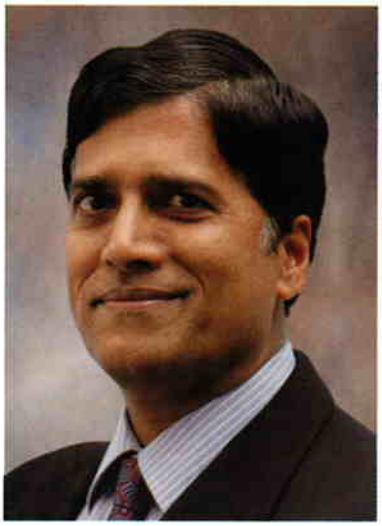
Message from the Organising Chairman

The International Medical University (IMU) is proud and honoured to have been selected as the local host for the 6th Congress of the Asian Medical Education Association. This is the most important medical education conference in Asia and I am delighted that nearly 400 delegates from over 40 countries have already registered by the middle of February 2011. I am confident that all delegates to this conference will benefit enormously from the plenaries and symposia which will be delivered by eminent medical educationists from around the world. We have also received to date, nearly 350 abstracts for free paper presentations and posters. These are all of a very high quality and I am sure there will be very useful sharing of experiences among all delegates.

The IMU since its establishment in 1992 has placed much importance in medical education. Prof Ron Harden and Prof Ian Hart, two very eminent medical educationists played major roles in defining the educational philosophy and pedagogical approaches of the university. Prof Harden continues to play a very active role in medical education issues in IMU and in appreciation of his tremendous contribution to our university we have established the Ron Harden Innovation in Medical Education (RHIME) award. At this congress there will be a special session for the finalists to present their innovations.

I wish to thank and welcome all the delegates to IMU and Malaysia and hope that you will have an enjoyable stay in Malaysia. We are grateful to Prof Grace Tang and the Council of AMEA for giving us the opportunity to host this important event. I wish also to express my grateful thanks to my very hard-working members of the Organising Committee who worked tirelessly for over a year to ensure that everything is in order. We are greatly obliged to our invited speakers for taking their valuable time off in order to share their vast experiences with us.

Victor Lim
Chairman, Organising Committee,
6th Congress of AMEA



Message from the Scientific Committee Chairman

It is my pleasure to extend a warm welcome to all the delegates to the 6th Congress of Asian Medical Education Association.

Medical Education has evolved over the last two decades and we have seen many innovations in teaching/learning methods and assessments tools. The Scientific programme will address most of the innovative methods in Medical Education and it is reflected in the theme of the conference "Trends in Medical Education". The Scientific programme covers a wide range of topics in curriculum development, teaching/learning methods, assessment and research. To maximize exchange of ideas among participants, time has been allocated for discussion in all the sessions. The Medical Education Clinic will provide opportunity for all the participants to get opinions from the experts on various issues related to medical education and also to express their views.

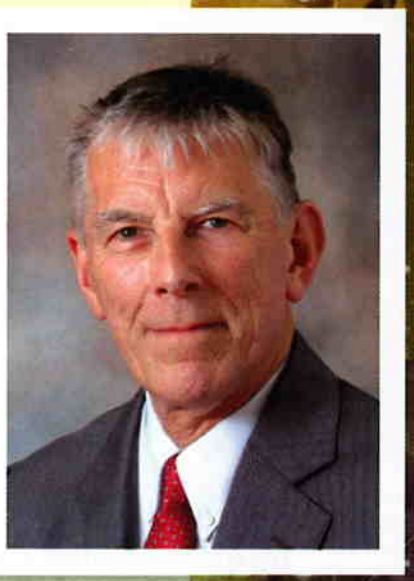
We have received over 370 papers for presentation during the conference. Though it is an Asian Medical Education Conference the meeting has evinced interest of many health professions educators from other regions and we have many delegates from the other continents.

One of the highlights of the conference will be the IMU-Ron Harden Innovation in Medical Education Award **(IMU-RHIME AWARD)**, for the best innovation in Medical Education. We have received many interesting abstracts from around the world for the award and those will be presented during the conference.

We sincerely hope that there will be sharing of information and good intellectual discussion during the Congress and every participant would have contributed to the forum and would have learnt something new. We also hope that you will find the Congress fruitful to establish new links/ collaboration for future medical education activities. Wish you all a pleasant stay in Kuala Lumpur.

Sambandam Elango
Chairman, Scientific Committee,
6th Congress of AMEA

Keynote Address



The Changing Face of Medical Education

Ronald M Harden

This is a time of unprecedented change in medical education. The new learning technologies including e-learning and simulation, educational strategies such as PBL and integration and assessment approaches such as the OSCE and portfolio assessment have evolved as hugely significant developments in medical education. They have for the most part, been harnessed to do better and more effectively what we are already doing in the training of the doctor of the future.

In science, key advances are revolutionary rather than evolutionary. Looking to the future in medical education, we need to plan for and implement a paradigm shift with a transformation or sort of metamorphosis. We need to debate, consider and implement a fundamental revision of our training programme in medicine in at least four respects: a move to a true continuum of education replacing the silos of undergraduate, postgraduate and continuing education; greater social responsibility and accountability as an established and assessed mission of a medical school; an emphasis on local and international partnerships and collaborations and outsourcing in the delivery of an education programme; and a focus on professionalism in medical education recognising and rewarding the practice of education as a craft and a science.

With the current financial constraints and with the demands on the profession, the time is now ripe to bring about the required changes. All of us have a responsibility as players which we need to accept if this revolution is to succeed. We need, as advocated by Wayne Hodgins, to 'imagine if the impossible isn't'.

Plenaries

PLENARY 1
Medical education in global village

Grace Tang

Medical education, both undergraduate and postgraduate, has undergone much evolution and agreement in the last 2 decades particularly after the General Medical Council had published its document on "Tomorrow's Doctors" for the undergraduate curriculum. A number of postgraduate Colleges and Academies over the World have also defined the training program as well as continuous medical education and continuous professional development. The concept of life-long learning is generally accepted, and that periodic revalidation in various forms is considered a necessity in ensuring the quality of performance in practice as well as for public safety.

What should medical educators and institutions be concerned with in medical education in today's global village where exchange of information and experience on teaching and learning is abundant both for teachers and students? Should one be concerned about the level of medical knowledge to be included in the curriculum? Should one be continuously modifying the methods of teaching and learning? If medical curricula are similar in content, do differences in methodology of teaching give rise to different outcomes in medical professionalism? How can the effect of the changes be evaluated with any degree of certainty that change is necessary?

Another aspect to address is whether with similar curricula, methods of teaching, as well as assessments, there is a possibility for doctors to work without boundaries. There is still barrier for doctors to work outside the jurisdiction where they receive their medical education. What are the real good reasons? Can medical education in the global village enable doctors to work freely in different places and to gain similar trust from the Public? Or medical education must be regulated from place to place through examinations?

PLENARY 2
Implementing curriculum change: Political skills needed

Jonas Nordquist

The overall aim of this plenary is to show how research in political science can fertilize the implementation capacity of academic medicine.

Outcomes:
The participants shall be able to
- Discuss how medical schools can be analyzed as political systems;
- Discuss how such an analysis can illuminate and strengthen the capacity of medical schools to implement new innovations.

Evidence-based has become a new phrase in the general vocabulary. This clearly shows the major impact this scientific concept has made far outside academic circles. A significant amount of energy and space in contemporary academic medicine is dedicated to measuring effects and finding the optimal solutions to different educational challenges. In those cases where research shows evidence for a specific innovation or method, this ought to be implemented more generally. But what about implementation (defined as "carry out, accomplish, fulfill, produce or complete") (Hill & Hupe)? What do we know about successful implementation once we have the evidence in place?

One tradition of thought argues that human beings are rational; once we have the optimal information and have exhausted all possible alternatives, we can make a rational and enlightened decision. Human beings are rational if the available information is optimal (this tradition is called rational choice and have many different forms). Implementation is hence taken for granted, or seems to be understood as something manual and automatic, once the evidence is available.

Such a perspective on implementation was questioned on empirical grounds almost 70 years ago (Simon; Hill & Hupe). It was argued that humans are not perfectly rational and that power, status and competence sometimes prevail over "rational decision making based on informed evidence" (Heifetz). Implementation is therefore seen as neither automatic nor manual.

A sub discipline to political science research has studied implementation processes since the beginning of the 1970s (Pressman & Wildavsky; Lipsky) and has strongly questioned a rational perspective on implementation. Based on this research, it will be argued in this plenary, that medical schools can be analyzed as political systems, and that we have a lot to learn from political science research in order to improve our own implementation capacity in academic medicine.

This plenary will give an overview of the literature in the field of implementation research in political science. The ultimate goal is to show how implementation studies in political science, can illuminate and fertilize efforts in academic medicine to implement educational change further.

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PLENARY 3
Can communication skills be taught on-line?

John Marley and Glyn Brokensha

Patients are rarely in a position to assess the technical competence of treating clinicians, but they are certainly in a position to judge their communication skills. Poor communication is the sole reason for much litigation and is a major component of all complaints. Communication skills are not intuitive and so good teaching is essential. It could be thought that teaching these skills on-line could not be possible when they are largely a face to face experience.

The driver for the construction of the program Communicology was during our time at the University of Newcastle, Australia, when the numbers of commencing health professional students suddenly rose to 1000 spread over three campuses hundreds of kilometres apart. It was no longer possible to recruit and train sufficient tutors or to guarantee any consistency of learning experience or assessment. Dr Brokensha and Prof Marley had worked together on other communication skills teaching and often discussed the possibilities of an on-line program. The Program is designed to run over one semester.

Communicology consists of a series of modules using animation to illustrate concepts. Unless video is expensively professionally produced it looks amateur to students, is difficult to update and bandwidth hungry for downloading. Animation was chosen for its small size for fast presentation over slow connections, ease of updating and its ability to make points in a way that cannot be done with real people, as viewers of the Simpsons or South Park will know. It is possible to call up the script of the clips as well as viewing and listening to them and we found that this was a diagnostic test for English Language ability as those with English as a second language called up the scripts, reading and listening at the same time and re-running the modules repeatedly, something which is not possible for a standard tutorial.

Students are required to submit notes and reflections and these are posted de-identified for all to see and this has a marked effect on the quality of submissions. The program detects those who try random keystrokes or who don't submit notes. The system flags students as green for those who are engaging and completing tasks, amber for those who are less engaged and red for those falling by the wayside. Staff time can thus be saved for those in the red and for keeping a watching brief on those in amber.

Student evaluation is overwhelmingly excellent. Students value the flexibility of being able to fit Communicology into the rest of their lives and the enjoyment they experienced while learning. Students who are unwell do not miss out as they do with face to face teaching. English second language students have found it particularly useful as when struggling with language they miss elements in standard tutorials and do not have the opportunity to repeat them as often as they wish as they can do with Communicology.

The academic staff can guarantee consistency of learning experience and assessment. Very importantly, there are enormous cost savings as a fraction of one staff member's time can supervise 1000 students. We did though uncover some staff who wishing to hold back time, were uncomfortable with computers in any form.

For more information please contact the designer and author of Communicology Dr Glyn Brokensha - glyn.brokensha@tertiaryanimation.com - and to explore Communicology in more detail visit -www.explore.tertiaryanimation.com - guest log-ins are available for a more in-depth experience. Alternatively contact Professor John Marley – j.marley@uq.edu.au.

PLENARY 4
Evidence on the assessment of competence

Cees P.M. van der Vleuten

In the past 50 years the field of assessment of professional competence has seen remarkable progress. Developments in assessment technology have taken place across all areas of professional competence, ranging from cognitive to behavioral and emotional aspects of competence. This has been accompanied by extensive research. In a historical overview these developments will be sketched. The lessons to be learned for specific technologies will be summarized and general lessons for the assessment field as a whole will be discussed. These lessons can be translated into practical suggestions.

From a wider perspective, assessment is changing from a psychometric problem into an education design problem, in which assessment of learning is replaced by assessment for learning. This new approach relies more heavily on (more subjective) expert judgment providing more information-rich, narrative information. Finally, areas for research and development will be outlined. The presentation can be found at: www.fdg.unimaas.nl/educ/cees/amea.

PLENARY 5
Making workplace-based assessment work

Philip Jones

The rationale and advantages of workplace assessment practices have been extensively evaluated particularly in postgraduate clinical training programs. The role of workplace assessment in medical curricula and their place in the overall approach to assessment of clinical competence in undergraduates is less clearly established. There are common challenges to implementing workplace assessment in both postgraduate and undergraduate programs though the extent to which medical students can engage in real work in health care settings poses additional challenges to assessing learning in the workplace.

The experience of the University of New South Wales in implementing workplace assessment in clinical clerkships in an undergraduate program will be described. The experience illustrates the challenges incorporating workplace assessment practices into the overall assessment program and the logistical problems presented by the work environment. The extent to which solutions to these challenges which are being applied in postgraduate clinical training programs will also be applicable to undergraduate training will be considered.

PLENARY 6
Innovation in basic science education

Wojciech Pawlina

Lectures and laboratories have traditionally occupied the majority of curricular time in preclinical years of medical schools. In the last decade, teaching of basic sciences is facing increasing criticism from new "Millennial" generation of students, clinical faculty and medical school administrators. Students feel overloaded with clinically irrelevant materials, which they are expected to memorize in order to obtain a passing grade. Administrators consider laboratory-based basic science courses as one of the most expensive and most time consuming. Recent world-wide changes to health care delivery systems facilitate movement to modernize medical curricula. The changes and innovations in teaching of basic sciences are the most visible in laboratory courses such as gross anatomy. In revised student-centered curricula, students are taught clinically-oriented basic science knowledge. They must learn to utilize information technology, collaborative learning in teams, and explore peer or near-peer interactions. Clinical reasoning process is often introduced early through discussions on patient cases that provide a clinical

context to the basic science knowledge. A formative feedback (other than numerical scores or grades on partial course examinations) is provided to students so they can adjust their learning style accordingly during the course. In addition to teaching basic science concepts, modern basic science courses should provide opportunities to teach principles of management, information technology, leadership, and teamwork. Collaboratively, these are the skills and competencies desirable for tomorrow's physicians.

PLENARY 7
Measuring teaching excellence: Mission impossible?

John Norcini

The ultimate reason for measuring teaching effectiveness is to improve the health of communities by enhancing the quality of education. Good assessment of teaching should improve student learning, help faculty realize their potential, generate and/or support educational reforms, and establish accountability. Measurements of teaching can be used for formative and summative assessment of individual teachers, but they also play a major role in the evaluation of courses and educational programs.

Some of the common methods for measuring teacher performance will be described along with the advantages they bring and the challenges they face. Based on an excellent review by Berk (2005), these include student ratings, peer ratings, external expert ratings, self-evaluation, video, student interviews, alumni ratings, employer ratings, administrator ratings, teaching scholarship, teaching awards, learning outcomes, and teaching portfolios. Each of these adds something to the measurement of teaching skills but alone they also bring significant limitations. Hence, it is important to create a system of measurement which incorporates information from a variety of source.

Many of the current systems for assessing teaching skills incorporate some of these measures but they fail along a number of dimensions, including a lack of rigor and consequence. The characteristics of a well-functioning system of teaching assessment will be described.

PLENARY 8
Inculcating lifelong learning skills : Is it achievable?

Rogayah Jaafar

Students and in particular, practisioners in medical and health sciences training programmes and services need to keep abreast and updated with the very rapid expansion of knowledge and technological advances in the field of patient care. What was once learnt and put into practice in the past few years could today become obsolete. Thus, there is a need to ensure that the students we graduate from our training programmes develop the necessary lifelong and self directed learning skills to move to the real world of patient care at the hospital as well as other ambulatory care settings. Is this achievable? How do we ensure that our students are nurtured with these life long learning skills throughout our curriculum? Experiential learning within a community-oriented approach sensitises students to various aspects of the daily life practices of the various individuals, families and communities which may affect the way these communities view health issues and health seeking behaviour,determine nutritional needs and inclination and influence compliance to treatment and medication. The introduction of community-based learning components at various part of the course can help students understand these issues which will promote their ability to improve the health status of the community by instituting educational and preventive measures instead of just addressing curative regimes.The process by which community health professionals engage problems is nearly identical to the process used by students in PBL. It is difficult to learn about community health problems via paper cases in a PBL tutorial in a classroom without first hand experience in the field. Learning about health, wellness, and disease in communities requires students to listen and observe critically, and self-directed learning is a necessity. Getting the students engaged in the community will make the students realize how little basic science they actually know and how much they need to learn. The need to know can be harnessed as a force for learning in the manner that is fully integrated with behavior and population issues of the community. Psychosocial issues, economic, environmental, and behavioral determinants of health and disease can be experienced and learned first-hand. In community learning programmes, students typically keep records of the patients they see, the problems they encounter, and the learning issues they study. In many programmes, students are also required to provide a community service or conduct a study or project in the community. At the faculty level we should be able to train our students to have the confidence to do things differently and the optimism that how they think and what they do can make a difference.

Keywords: medical education, self directed life long learning, contract learning community based education, innovative curricular changes

PLENARY 9
Distributed learning: Fad or future?

Ian Symonds

Synopsis
Distributed learning is 'an instructional model that allows instructor, students, and content to be located in different, noncentralized locations so that instruction and learning occur independent of time and place. The distributed learning model can be used in combination with traditional classroom-based courses, with traditional distance learning courses, or it can be used to create wholly virtual classrooms'. (Saltzberg & Polyson 1995)

The Joint Medical Program (JMP) is a collaboration of two universities (Newcastle and New England), and two Health Networks in NSW, Australia. Students are located across two universities and five clinical schools as well as multiple primary care sites, over an area more than 400km across. This represents a major challenge in delivering an equivalent learning experience for all students.

In this presentation we describe some models of distributed learning in the JMP including projects on assessment by e-portfolios, teaching in virtual PBL groups using laptop videoconferencing and on-line lectures. Different models of distributed learning and the potential for future developments in eLearning will be discussed.

PLENARY 10
Measuring fitness to practice: Where are we today?

CS Lau

Undergraduate teaching in medicine has become more complex in recent years. Training to be a doctor requires more than acquisition of knowledge and skills. Interactions with patients are an important component of undergraduate learning and are beginning earlier in the course of the curriculum. Besides, holistic and multidisciplinary approaches to patient management are increasingly emphasised and students need to learn the skills to work and communicate with others. At all times, therefore, medical students must behave with utmost integrity to maintain the trust placed in them by patients and colleagues. Concurrently, the university has a duty to ensure that no member of the public is harmed as a result of taking part in the teaching of medical students. In addition to ensuring professional conduct, health issues which may render a student potentially unfit to practice medicine need to be monitored.

By awarding a medical degree, the university is stating that the graduate is fit to practice medicine as a doctor. However, the emphasis on professional as well as academic competency at graduation is relatively recent. In the UK, the General Medical Council, as the accrediting body for all UK medical schools, now advocate fitness to practice procedures to be established at undergraduate level. In Asia, few medical schools have got such a policy on board. Most current approaches on fitness to practice issues are essentially reactive. There is a need for this to be changed. A more proactive approach is needed such that interventions can be instituted at an early stage. This may include the promotion of general health and well being of students, increased emphasis on teaching in ethics and humanities, and the introduction of a regular assessment and counselling sessions at all stages of the curriculum. The speaker will review the progress of the development of professional teaching in medical schools and share his experience in the setting up of the fitness to practice procedures at the University of Hong Kong.

PLENARY 11

Curriculum evaluation: Principles and pitfalls

Nabishah Mohamad

Curriculum evaluation is systematic collection, analysis and reporting of information about a program to assist in decision-making. It is an important component for planning and management of a programme. The principle in curriculum evaluation is to guide the evaluation process which includes the what, when, why, how, and who. The first step in curriculum evaluation is to decide whether the evaluation is for the whole curriculum or certain elements of the curriculum such as its content, the approaches and teaching learning strategies, the assessment or and the outcomes. Curriculum evaluation should begin while developing the curriculum; the subsequent evaluations depend on the purpose of the evaluation either formative and developmental or summative. Curriculum evaluation may involve the whole faculty and stakeholders while the evaluators could be internal or external evaluators depending on the purpose of the evaluation. While internal evaluators are more knowledgeable of the curriculum, it may predispose to evaluating something they are highly biased about. Pitfalls in curriculum evaluation may occur at any stage of the evaluation process, the standard and the output. The principles in curriculum evaluation provide a framework for conducting the exercise; furthermore recognising the common pitfalls provide real life experience and guidance for both institution and the evaluators.

6th Congress of the Asian Medical Education Association (AMEA)
Scientific Programme 23 – 26 March 2011

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PBL is not suitable for Asian students</td><td>Symposium 3
Transition to internship: Meeting the challenge</td></tr>
<tr><td rowspan="8">1400 – 1730
Pre-Congress workshops
Afternoon session</td><td rowspan="2">1200 – 1330
Lunch and poster viewing</td><td colspan="2">1130 – 1300</td><td rowspan="2">1215 – 1330
Lunch</td></tr>
<tr><td>Poster viewing</td><td>Free paper session 2</td></tr>
<tr><td colspan="2">1330 – 1415</td><td rowspan="2" colspan="2">1300 – 1430
Lunch and prayer</td><td>1330 – 1415</td></tr>
<tr><td>Plenary 2
Implementing curriculum change: Political skills needed</td><td>Plenary 3
Can communication skills be taught online?</td><td>Plenary 10
Measuring fitness-to-practice: Where are we today?</td><td>Plenary 11
Curriculum evaluation: Principles and pitfalls</td></tr>
<tr><td>1415 – 1500
Interactive forum I
Should peer evaluation be part of the student learning environment?</td><td>1415 – 1500
Interactive forum II
Assessment of clinical competence: Traditional vs innovative</td><td>1430 – 1530
Medical Education Clinic</td><td>1415 – 1500
Symposium 4
Meeting the challenge of clinical teaching</td></tr>
<tr><td colspan="2">1500 – 1630
Free paper session 1</td><td>1530 – 1700
Free paper session 3</td><td>1500 – 1530
Awards and closing ceremony</td></tr>
<tr><td colspan="2">1630
Tea break</td><td rowspan="2">1700
Tea break</td><td rowspan="2">1530
Tea break</td></tr>
<tr><td colspan="2">1900
Gala dinner
(Transport leaves at 1730 to venue)</td></tr>
</table>

Pre-Congress Workshops

International Medical University
Bukit Jalil, Kuala Lumpur

Day 1 - Wednesday, 23 March, 2011
Morning Session (am)

Time	Workshops	Activities	Venue
0900 – 1230	1	Outcome based education and curriculum mapping Ron Harden, United Kingdom	MPH 4 (2.07.06), Level 2
	2	Standard setting in assessment John Norcini, United States of America	MPH 3 (2.07.05), Level 2
	3	Educational leadership Jonas Nordquist, Sweden	MPH 2 (2.07.04), Level 2
	4	Learning through effective feedback Tessa Dunseath, Malaysia	Seminar Room 4 (1.10), Level 1
	5	Writing quality PBL triggers Hla Yee Yee, Malaysia	Seminar Room 3 (1.09) Level 1

Day 1 - Wednesday, 23 March, 2011
Afternoon Session (pm)

Time	Workshops	Activities	Venue
1400 – 1730	6	Workplace-based assessment Cess van der Vleuten, The Netherlands	MPH 4 (2.07.06), Level 2
	7	Qualitative research in medical education Ray Peterson, Australia	MPH 3 (2.07.05), Level 2
	8	Facilitating small group learning Matthew Gwee, Singapore	MPH 2 (2.07.04), Level 2
	9	Imparting clinical reasoning Onishi Hirotaka, Japan	Seminar Room 4 (1.10), Level 1
	10	Using social media and web 2.0 – Tools for learning Zaid Ali & Colin Lumsden, Malaysia & United Kingdom	E-Lab 3 (3.01.03) Level 3

Pre-Congress Workshops

International Medical University
Bukit Jalil, Kuala Lumpur
Wednesday, 23rd March 2011

Workshop 1 – Outcome based education and curriculum mapping

Ronald M Harden
University of Dundee, United Kingdom

Time : 8.30am – 1.00pm
Venue : MPH 4 (2.07.06)

Synopsis

A curriculum is a sophisticated blend of course content, educational strategies, learning experiences, assessment, the education environment and a timetable or syllabus. Traditionally educational planning has suffered from being somewhat haphazard with educational experiences arranged opportunistically. For the student this can be likened to a 'magical mystery tour'. A more systematic approach is necessary in line with public and professional demands, changes in medicine, problems of information overload and integrated and problem-based approaches to education.

An outcome based approach and curriculum mapping are a response to these challenges. They can be likened to the glue that holds the curriculum together. The scope and sequence of learning is made explicit together with the expected learning outcomes and how, when and where they can be achieved in the curriculum.

This interactive workshop explores the concept of outcome based education and curriculum mapping and looks at their practical implementation.

Programme

Time	Activities	Venue
0830 – 0900	Registration	Atrium, Ground Floor
0900 – 0915	Welcome and introductions	MPH 4 (2.07.06), Level 2
0915 – 0930	What is the problem in Zigland?*	MPH 4 (2.07.06), Level 2
0930 – 1030	The ten questions to ask about a curriculum and communications about the curriculum - What do you need for the Amazon adventure?* - Three tools to support the curricular journey	MPH 4 (2.07.06), Level 2
1030 – 1100	**Coffee break**	Dewan Canselor, Level 4
1100 – 12.00	Prepare a curriculum map for the CVS course in Sutah Medical School* - Reporting back	MPH 4 (2.07.06), Level 2
1200 – 1230	Conclusions and take home messages	MPH 4 (2.07.06), Level 2
1230 – 1300	Close of workshop	MPH 4 (2.07.06), Level 2
1300	**Lunch**	Dewan Canselor, Level 4

** Work in small groups*

Pre-Congress Workshops

International Medical University
Bukit Jalil, Kuala Lumpur
Wednesday, 23rd March 2011

Workshop 2 – Standard setting in assessment

John Norcini, United States of America

Time : 8.00am – 1.30pm
Venue : MPH 3 (2.07.05)

Synopsis

The goal of this session is to familiarize the participants with the major methods for selecting the pass-fail point(s) on written and clinical examinations. The first part of the workshop will be devoted to a general overview of standards. In particular, it will highlight how standards differ from scores and it will define the two types of standards--relative and absolute. There are three aspects of standard-setting that make it credible: the nature of the standard-setters, the characteristics of the method and the outcomes. Each of these will be treated in depth.

The second part of the workshop will focus on the methods for setting standards. Included will be relative methods based on judgments about test-takers, absolute methods based on judgments about groups of test-takers, absolute methods based on judgments about individual items, and compromise methods. For each method, the process will be described as well as its strengths and limitations. Implementation guidelines will also be provided.

Active engagement will be encouraged throughout the workshop, a brief standard-setting exercise will be conducted, and participants are asked to bring their own standard-setting problems.

Programme

Time	Activities	Venue
0800 – 0830	Registration	Atrium, Ground Floor
0830 – 0930	Background a. Scores and standards: Definitions and types b. Characteristics of a credible standard: Who sets it, which methods, and what are the outcomes?	MPH 3 (2.07.05), Level 2
0930 – 1000	Methods	MPH 3 (2.07.05), Level 2
1000 – 1030	**Coffee break**	Dewan Canselor, Level 4
1030 – 1100	Steps in implementation	MPH 3 (2.07.05), Level 2
1100 – 1145	Setting standards using Angoff's Method: Small groups	MPH 3 (2.07.05), Level 2
1145 – 1230	Participants' standard-setting problems	MPH 3 (2.07.05), Level 2
1230 – 1330	**Lunch**	Dewan Canselor, Level 4

Pre-Congress Workshops

International Medical University
Bukit Jalil, Kuala Lumpur
Wednesday, 23rd March 2011

Workshop 3 – Educational leadership

Jonas Nordquist, Sweden

Time : 8.30am – 1.00pm
Venue : MPH 2 (2.07.04)

Objectives

This workshop is highly interactive and all participants are invited to share their experience and knowledge. The workshop is designed both anyone whit and interest in educational leadership development. PPT-slides and a list of reference literature will be handed-out in the end of the workshop.

Programme

Time	Activities	Venue
0830 – 0900	Registration	Atrium, Ground Floor
0900 – 0930	What is a political perspective on leadership? How does it differ from i.e. business administration and human resource development?	MPH 2 (2.07.04), Level 2
0930 – 1000	A medical school from a political perspective	MPH 2 (2.07.04), Level 2
1000 – 1030	**Coffee break**	Dewan Canselor, Level 4
1030 – 1115	Basic concepts in political analysis	MPH 2 (2.07.04), Level 2
1115 – 1230	Leadership, politics and organizational culture	MPH 2 (2.07.04), Level 2
1230 – 1300	**Lunch**	Dewan Canselor, Level 4

Pre-Congress Workshops

International Medical University
Bukit Jalil, Kuala Lumpur
Wednesday, 23rd March 2011

Workshop 4 – Learning through effective feedback

Tessa Dunseath, Malaysia

Time : 8.30am – 1.00pm
Venue : Seminar Room 4 (1.10)

Academics involved in teaching are required to evaluate their teaching practice on a regular basis. This evaluation process may include annual performance reviews, tutor evaluations by students, course evaluations, portfolio examinations; the list appears to increase each year. The peer review assessment has been regarded in the past as a formative and largely user-friendly arrangement, with reviewers drawn from immediate colleagues. However, peer review is now growing in popularity as a summative tool for assessment in performance management. In some universities, peer review is now mandatory.

However, the peer review process presents a number of significant challenges, not least in making the choice of peer reviewer. Norcini (2003) states that he believes there are problems with peer review assessment in that there is room for 'too many generalisations', which can be 'good or bad, depending on how it is carried out'. Brown (2008), commenting on teaching evaluations in general, questioned whether feedback on teaching performance was taken seriously. Clearly, if the peer review process is to be meaningful, it is important to get it right not only with regard to documentation but also with respect to attitudes and the provision of training.

This session will be an interactive workshop, which aims to identify and examine some of the key issues in the peer review process. In the session, participants are invited to:

- Evaluate and trial three evaluation tools designed to eliminate the 'generalisations' in the peer review assessment
- Identify, in their areas of practice, key 'indicators of good practice' and their 'descriptors'
- Make a contribution to the process of designing tools for peer review
- Take part in peer reviewer training
- Discuss the professional and cultural issues encountered when providing peer feedback
- Devise strategies which will provide academic colleagues with the opportunity to learn and develop through the feedback they provide

References

Brown, M. (2008). Student perceptions of teaching evaluations. Journal of Instructional Psychology. 35, 2. pp 177-181.
Norcini, J. (2003). Peer assessment of competence. Medical Education. 37: 539-543.

Programme

Time	Activities	Venue
0830 – 0900	Registration	Atrium, Ground Floor
0900 – 1030	Introduction and group discussion	Seminar Room 4 (1.10), Level 1
1030 – 1100	**Coffee break**	Dewan Canselor, Level 4
1100 – 1230	Group discussion	Seminar Room 4 (1.10), Level 1
1230 – 1300	**Lunch**	Dewan Canselor, Level 4

Pre-Congress Workshops

International Medical University
Bukit Jalil, Kuala Lumpur
Wednesday, 23rd March 2011

Workshop 5 – Writing quality PBL triggers

Hla Yee Yee, Gnanajothy Ponnudurai and Chen Yu Sui, Malaysia

Time : 8.30am – 1.00pm
Venue : Seminar Room 3 (1.09), Level 1

The success of PBLs depend upon a variety of factors viz. student motivation, student characteristics, timing, environment, group composition, group size, expertise of facilitators, PBL triggers and whether or not the PBL process and/or content will be evaluated.

PBL triggers can make or break a PBL session. Thus, certain guidelines should be followed in constructing PBL triggers. Triggers should be simple enough to fit the level of the students in question, yet complex enough to be realistic. They should not be too ambitious, addressing too many learning objectives because these encourage students to divide tasks. Some triggers use jargon and concepts not yet touched upon by students, which makes understanding of the problem difficult. Using old triggers can defeat the PBL process since senior students hand down learning issues to juniors.

Triggers are often constructed from the imagination; this may be very unrealistic and can very well invite wrong concepts to creep in, particularly when a single person constructs a trigger and wanders from his field of expertise. Constructing triggers from real life makes them more interesting and accurate. Indeed, the media and the internet offers a wealth of potential triggers which eliminates the necessity of reinventing the wheel.

This workshop is thus designed to fulfill the following objectives:

1. Describe the qualities of a good trigger.
2. Name the types of triggers.
3. Name the delivery methods for triggers.
4. Create a trigger appropriate for a given course.
5. Identify the strengths and weaknesses of a trigger

Programme

Time	Activities	Venue
0830 – 0900	Registration	Atrium, Ground Floor
0900 – 0920	Getting Acquainted & Brainstorming: What is PBL? Hla Yee Yee	Seminar Room 3 (1.09), Level 1
0920 – 0940	PBL Triggers: Why, What, How? Yu Sui Chen	Seminar Room 3 (1.09), Level 1
0940 – 1000	**Coffee break**	Dewan Canselor, Level 4
1000 – 1030	Writing a PBL trigger Hla Yee Yee	Seminar Room 3 (1.09), Level 1
1030 – 1040	Explanation of group work Gnanajothy Ponnudurai	Seminar Room 3 (1.09), Level 1
1040 – 1200	Group work – Writing PBL Triggers Facilitators: Hla Yee Yee, Chen Yu Sui, Gnanajothy Ponnudurai	Seminar Room 3 (1.09), Level 1
1200 – 1230	Group presentation & discussion Chairperson: Gnanajothy Ponnudurai	Seminar Room 3 (1.09), Level 1
1230 – 1300	**Lunch**	Dewan Canselor, Level 4

Pre-Congress Workshops

International Medical University
Bukit Jalil, Kuala Lumpur
Wednesday, 23rd March 2011

Workshop 6 – Workplace-Based assessment

Cees van der Vleuten,
Maastricht University, The Netherlands

Time : 1.30pm – 5.30pm
Venue : MPH 4 (2.07.06), Level 2

Research of reliability of assessment procedures has learned us the pivotal role of sampling across contexts and assessors. With good sampling individual samples may even be more subjective. This allows expert judgment to be part of the assessment process. Expert judgment is needed to assess complex behaviors and competences, particularly in assessment within a work-based learning context. Here the assessment takes place in the unstandardized and unstructured authentic context of the workplace. For assessment to be meaningful of learning, appropriate feedback is needed. Qualitative, descriptive, narrative information is often more meaningful in the provision of the feedback than quantitative information. Giving informative feedback is a skill that needs to be developed and nurtured. Therefore the quality of the assessment in the workplace will be highly determined by the stakeholders in the assessment process, much more than by the inherent validity of the individual assessment instruments that are used. By aggregating information across many sources, contexts and assessors a meaningful and informed decision can be made. This process should be formalized with in-built rigorous procedures. In this workshop these assessment insights will be discussed and, a feedback session will be simulated. We will explore how these work-based assessments can be tied into the routine of the clinical workplace and what procedures are needed to make promotion decisions rigorous and trustworthy.

Programme

Time	Activities	Venue
1330 – 1400	Registration	Atrium, Ground Floor
1400 – 1430	Introduction to the programme	MPH 4 (2.07.06), Level 2
1430 – 1500	Classes of Work-Based Assessment methods	MPH 4 (2.07.06), Level 2
1500 – 1530	Introduction to single encounter observation methods	MPH 4 (2.07.06), Level 2
1530 – 1545	**Tea break**	Dewan Canselor, Level 4
1545 – 1615	Practicing a single encounter method	MPH 4 (2.07.06), Level 2
1615 – 1635	Introduction to global performance measures	MPH 4 (2.07.06), Level 2
1635 – 1700	Introduction to aggregation and reflection methods	MPH 4 (2.07.06), Level 2
1700 – 1730	Practicing a portfolio review session	MPH 4 (2.07.06), Level 2
1730	Close	MPH 4 (2.07.06), Level 2

Pre-Congress Workshops

International Medical University
Bukit Jalil, Kuala Lumpur
Wednesday, 23rd March 2011

Workshop 7 – Qualitative research in medical education

Ray Peterson, Australia

Time : 2.00pm – 5.30pm
Venue : MPH 3 (2.07.05), Level 2

Synopsis

This workshop is designed for participants who have limited experience in the application of qualitative research designs in medical education. The workshop will address the following topics:

- What is qualitative research
- Research questions best suited to qualitative studies
- Designing a qualitative study
- Determining the sample size
- Dealing with reliability and validity issues
- Data collection methods
- Interpreting qualitative data
- Ethical considerations in data collection and interpretation
- Pitfalls in qualitative studies

Learning outcomes

Through completion of this workshop participants should be able to:

- recognise the basic principles of qualitative research
- apply qualitative principles in designing a qualitative study
- distinguish different methods for sample size determination and data collection
- analyse basic qualitative data
- assess critical ethical and methodological problems in qualitative research
- examine a case study using qualitative methods

Programme

Time	Activities	Venue
1330 – 1400	Registration	Atrium, Ground Floor
1400 – 1415	What is and what is not qualitative research?	MPH 3 (2.07.05), Level 2
1415 – 1500	Designing a qualitative study • Research questions • Sample size • Data collection methods • Establishing reliability and validity	MPH 3 (2.07.05), Level 2
1500 – 1530	Interpreting qualitative data Generalizability of research findings	MPH 3 (2.07.05), Level 2
1530 – 1545	**Tea break**	Dewan Canselor, Level 4
1545 – 1630	A case study in qualitative research	MPH 3 (2.07.05), Level 2
1630 – 1700	Ethical considerations Common problems for novice qualitative researchers	MPH 3 (2.07.05), Level 2
1700 – 1730	Getting started in qualitative research Developing a research proposal	MPH 3 (2.07.05), Level 2
1730	Close	MPH 3 (2.07.05), Level 2

Pre-Congress Workshops

International Medical University
Bukit Jalil, Kuala Lumpur
Wednesday, 23rd March 2011

Workshop 8 – Facilitating small group learning

Matthew C.E. Gwee, Singapore

Time : 2.00pm – 5.30pm
Venue : MPH 2 (2.07.04), Level 2

Synopis

The major theme of this workshop will be on how medical teachers, in their role as tutors (facilitators), can optimize student-centred learning through effective facilitation of the intellectual (cognitive) and interpersonal (affective) processes involved in small group learning. In order for workshop participants to have a better and clearer understanding of the processes, as well as to acquire the desired enabling competencies to facilitate small group learning effectively, the workshop is structured to review the following issues:

- What really characterises small group learning?
- How should medical teachers optimize student learning in small groups?
- Why should small group learning be advocated in medical education?

The workshop will consist of presentations by the workshop facilitator (leader), as well as the involvement of participants in some workshop activities. All medical teachers who have the responsibility to design and conduct small group learning, but who have had little experience in doing so, will benefit from attending this workshop.

Programme

Time	Activities	Venue
1300 – 1330	Registration	Atrium, Ground Floor
1330 – 1345	Welcome / introduction	MPH 2 (2.07.04), Level 2
1345 – 1400	What this workshop is about?	MPH 2 (2.07.04), Level 2
1400 – 1420	Group Activity I: Critical analysis of 2 models of T-L process	MPH 2 (2.07.04), Level 2
1420 – 1440	Sharing and Learning Together (Group Presentation)	MPH 2 (2.07.04), Level 2
1440 – 1510	Resource slides presentation	MPH 2 (2.07.04), Level 2
1510 – 1530	Group activity II: Choice of Tutor Facilitation Styles	MPH 2 (2.07.04), Level 2
1530 – 1545	Sharing and learning together (Group presentation)	MPH 2 (2.07.04), Level 2
1545 – 1600	**Tea break**	Dewan Canselor, Level 4
1600 – 1615	Resource slides presentation	MPH 2 (2.07.04), Level 2
1615 – 1630	Group Activity III: Two case studies (hardcopies provided)	MPH 2 (2.07.04), Level 2
1630 – 1645	Sharing and learning together (Group presentation)	MPH 2 (2.07.04), Level 2
1645 – 1700	Resource slides presentation	MPH 2 (2.07.04), Level 2
1700 – 1730	Q & A / discussion / take-home message	MPH 2 (2.07.04), Level 2
1730	Close	MPH 2 (2.07.04), Level 2

Pre-Congress Workshops

International Medical University
Bukit Jalil, Kuala Lumpur
Wednesday, 23rd March 2011

Workshop 9 – Imparting clinical reasoning

Hirotaka Onishi, Japan
Time : 2.00pm – 5.00pm
Venue : Seminar Room 4, (1.10), Level 1

Synopsis

Background: Many health professional educators often discuss how to improve teaching for clinical reasoning. Not only bedside teaching but also problem-based learning (PBL) or team-based learning (TBL) is related with promotion of clinical reasoning. The aim of this pre-congress workshop is to have deep discussion about how to improve clinical reasoning through day-to-day curricula.

Intended outcomes: Participants will be able to understand and use the framework of how to teach/learn clinical reasoning in both undergraduate and postgraduate clinical education for all the health professionals.

Structure:

- Plenary session for the framework of how to teach/learn clinical reasoning
- Discussion for pre-clinical teaching for clinical reasoning
- Discussion for clinical (both postgraduate and undergraduate) teaching for clinical reasoning

Intended audience: Health professional educators interested in clinical reasoning.

Pre-Congress Workshops

International Medical University
Bukit Jalil, Kuala Lumpur
Wednesday, 23rd March 2011

Workshop 10 – Using social media and Web 2.0 - Tools for learning

Zaid Ali, Malaysia and Colin Lumsden, United Kingdom

Time : 2.00pm – 5.30pm
Venue : E-Lab 3 (3.01.03), Level 3

Description

Today there are hundreds of exciting Social Media and Web 2.0 tools that we can use for e-learning, but sadly most teachers do not have the time to explore all, or figure out which ones to use. In this hands-on workshop we will focus on exploring several essential Social Media and Web 2.0 tools that we can use to enhance our own personal learning network, and build more engaging and interactive e-learning experiences for our students.

Learning Outcomes

By the end of the workshop, participants should be able to use:

- RSS to keep track of trends, newsfeeds, blogs, etc. efficiently;
- Social bookmarking to organize, discover and share learning resources
- Blogging for reflective learning and teaching
- Twitter to connect, communicate and share
- Facebook to create learning communities
- Wikis to collaborate on online learning activities.

Programme

Time	Activities	Venue
1330 – 1400	Registration	Atrium, Ground Floor
1400 – 1430	Using social media & Web 2.0 for learning Zaid Ali Alsagoff	E-Lab 3 (3.01.03), Level 3
1430 – 1500	Mobile learning and social networks: Can we afford to ignore them? Colin Lumsden	E-Lab 3 (3.01.03), Level 3
1500 – 1530	RSS and curation Hands-on	E-Lab 3 (3.01.03), Level 3
1530 – 1545	**Tea break**	Dewan Canselor, Level 4
1545 – 1615	Educational blogging and micro-blogging Hands-on	E-Lab 3 (3.01.03), Level 3
1615 – 1635	Facebook for learning communities Hands-on	E-Lab 3 (3.01.03), Level 3
1635 – 1700	Wikis for group work Hands-on	E-Lab 3 (3.01.03), Level 3
1700 – 1730	Group presentations and discussion Zaid Ali Alsagoff	E-Lab 3 (3.01.03), Level 3
1730	Close	E-Lab 3 (3.01.03), Level 3

Congress Programme

International Medical University
Bukit Jalil, Kuala Lumpur

Day 2 – Thursday, 24th March 2011

MC : Sharifah Sulaiha

Time	Chairperson	Activities	Venue
0730 – 0845		Registration	Atrium, Ground Floor
0845 – 0900		**Welcome Address** Victor Lim, International Medical University, Malaysia	Auditorium 1 & 2, Level 4
0900 – 0945	Victor Lim	**Keynote Address** **The Changing Face of Medical Education** Ronald Harden, United Kingdom	Auditorium 1 & 2, Level 4
0945 – 1015		**Coffee break**	Dewan Canselor, Level 4
1015 – 1100	Yasmin A. Malik	**Plenary 1** **Medical Education in the global village** Grace Tang, Hong Kong	Auditorium 1 & 2, Level 4
1100 – 1200	Yasmin A. Malik	**Symposium 1** **Role of Medical Education units in Asian medical schools** Titi Savithri, Indonesia, N G Patil, Hong Kong, Nemuel S Fajutagana, Philippines, Kuo-Inn Tsou, Taiwan	Auditorium 1 & 2, Level 4
1200 – 1330		**Lunch**	Dewan Canselor, Level 4
		Poster Viewing	Broadway, Level 2

MC : Kang Yew Beng

1330 – 1415	Peter Pook	**Plenary 2** **Implementing curriculum change: Political skills needed** Jonas Nordquist, Sweden	Auditorium 1 & 2, Level 4
	Sivalingam Nalliah	**Plenary 3** **Can communication skills be taught online?** John Marley, Australia	Lecture Theatre 3, Level 4
1415 – 1500	Peter Pook	**Interactive Forum I** **Should peer evaluation be part of the student learning environment?** Julie Chen, Hong Kong, Mairead Boohan, United Kingdom	Auditorium 1 & 2, Level 4
	Sivalingam Nalliah	**Interactive Forum II** **Assessment of clinical competence: Traditional vs Innovative** Valerie Wass, United Kingdom , Nicholas Glasgow, Australia	Lecture Theatre 3, Level 4
1500 – 1630		**Free Paper Session 1**	MPH 4, 3, 2 Level 2, Seminar Room 3 & 4, Level 1
1630		**Tea break**	Dewan Canselor, Level 4
1830		**Gala Dinner**	Sunway Resort Hotel & Spa, Bandar Sunway

Congress Programme

International Medical University
Bukit Jalil, Kuala Lumpur

Day 3 – Friday, 25th March 2011

MC : Juriah Abdullah

Time	Chairperson	Activities	Venue
0730 – 0845		Registration	Atrium, Ground Floor
0845 – 0930	Toh Chooi Gait	**Plenary 4** **Evidence on the assessment of competence** Cees van der Vleuten, The Netherlands	Auditorium 1 & 2, Level 4
0930 – 1000		**Coffee break**	Dewan Canselor, Level 4
1000 – 1045	Kew Siang Tong	**Plenary 5** **Making workplace-based assessment work** Philip Jones, Australia	Auditorium 1 & 2, Level 4
	Toh Chooi Gait	**Plenary 6** **Innovations in basic science education** Wojciech Pawlina, United States of America	Lecture Theatre 3, Level 4
1045 – 1130	Francis Achike	**Symposium 2** **PBL is not suitable for Asian students** Debra Sim, Malaysia, N G Patil, Hong Kong, Nancy Margarita Rehatta, Indonesia, Kwan CY, Taiwan	Auditorium 1 & 2, Level 4
	Kew Siang Tong	**Symposium 3** **Transition to internship: Meeting the challenge** Sivalingam Nalliah,Malaysia, Khalid Yusoff, Malaysia Zabidi Hussin, Malaysia	Lecture Theatre 3, Level 4
1130 – 1300		**Free Paper Session 2**	MPH 4, 3, 2 Level 2, Seminar Room 3 & 4, Level 1
		Poster Viewing	Broadway, Level 2
1300 – 1430		**Lunch and Prayer**	Dewan Canselor, Level 4

MC : Sheila Rani

1430 – 1530	John Norcini	**Medical Education Clinic** Cees van der Vleuten,The Netherlands, John Norcini, United States of America, Tessa Dunseath, Malaysia, Hla Yee Yee, Malaysia	Auditorium 1 & 2, Level 4
1530 – 1700		**Free Paper Session 3**	MPH 4, 3, 2 Level 2, Seminar Room 3 & 4, Level 1
1700		**Tea break**	Dewan Canselor, Level 4

Congress Programme

International Medical University
Bukit Jalil, Kuala Lumpur

Day 4 – Saturday, 26th March 2011

MC : Nazimah Idris

Time	Chairperson	Activities	Venue
0845 – 0930	John Paul Judson	**Plenary 7** **Measuring teaching excellence: Mission impossible?** John Norcini, United States of America	Auditorium 1 & 2, Level 4
0930 – 1000		**Coffee break**	Dewan Canselor, Level 4
1000 – 1045	John Paul Judson	**Plenary 8** **Inculcating lifelong learning skills: Is it achievable?** Rogayah Jaafar, Malaysia	Auditorium 1 & 2, Level 4
	Jai Mohan	**Plenary 9** **Distributed learning: Fad or future?** Ian Symonds, Australia	Lecture Theatre 3, Level 4
1045 – 1215	Cees van der Vleuten	**IMU-RHIME award presentations** 1. **Group seminar by the students – An interactive strategy for better acquisition of knowledge** Sarmishtha Ghosh, MAHSA University College, Kuala Lumpur, Malaysia 2. **Changing the curriculum 'under the radar'** Mahinda Kommalage, Galle, Sri Lanka 3. **Value-added PBL** Hla Yee Yee, International Medical University, Kuala Lumpur, Malaysia 4. **Design and testing of observational practice educational networking (OPEN) tool to improve retention of technical clinical skills** Adam Dubrowski, University of Toronto, Ontario, Canada 5. **Innovative use of peer assessment to detect poor performers and dysfunctional teams** Jennifer Perera, University of Colombo, Colombo, Sri Lanka 6. **Tested innovation in clinical anatomy practical learning in a large cohort: Guided Collaborative Learning (GCL) and Multimedia Enhanced Student Peer Teaching-Demonstration (SPTD)** Arkendu Ken and Dr Lakshimi Selvaratnam, Monash University Sunway Campus, Selangor, Malaysia	Auditorium 1 & 2, Level 4
1215 – 1330		**Lunch**	Dewan Canselor, Level 4

MC : Sheila Rani

1330 – 1415	Sivalingam Nalliah	**Plenary 10** **Measuring fitness-to-practice: Where are we today?** CS Lau, Hong Kong	Auditorium 1 & 2, Level 4
	Hla Yee Yee	**Plenary 11** **Curriculum evaluation: Principles and pitfalls** Nabishah Mohamad, Malaysia	Lecture Theatre 3, Level 4
1415 – 1500	Sivalingam Nalliah	**Symposium 4** **Meeting the challenge of clinical teaching** Ahn Ducksun, Korea, Saroj Jayasinghe, Sri Lanka, Khin Tun, Malaysia	Auditorium 1 & 2, Level 4
1500 – 1530		**Awards & Closing Ceremony**	Auditorium 1 & 2, Level 4
1530		**Tea break**	Dewan Canselor, Level 4

Oral Presentations

International Medical University
Bukit Jalil, Kuala Lumpur

Day 2 – Thursday, 24th March 2011
Free Paper Session 1

Chairperson/ Venue	Time	Category	Code No	Title
Joachim Perera (Malaysia) & **Grant Townsend** (Australia) Venue: MPH 4 (2.07.06), Level 2	1500 – 1510	Assessment/ Evaluation	OAE 1	**Formative media-based quiz in semester 1 – Innovation by the students in an integrated medical curriculum**
	1510 – 1520		OAE 2	**Promoting institutional change through modified progress testing in Medical School of University of Brawijaya, Indonesia**
	1520 – 1530		OAE 3	**Assessment of Learning Using Clicker**
	1530 – 1540		OAE 4	**Development of computer-based testing for national competence examination for medicine**
	1540 – 1550		OAE 5	**Comparison of scores between global rating and osler- is there any difference?**
	1550 – 1600		OAE 6	**Does English language competency affect the academic performance? An analysis using the subject of anatomy**
	1600 – 1610		OAE 7	**Comparison between absolute and relative standard setting methods - is there a happy medium**
	1610 – 1620		OAE 8	**Some aspects on development of integrated examination**
	1620 – 1630		OAE 9	**An analysis of tutor assessment in problem-based learning tutorials: comparison of relative precision using 3-point and 5-point likert scoring methods**
Kang Yew Beng (Malaysia) & **Kyong Jee Kim** (Korea) Venue: MPH 3 (2.07.05), Level 2	1500 – 1510	Teaching/ Learning	OTL 1	**Classroom good teaching practices in an online faculty development programme**
	1510 – 1520		OTL 2	**Use of video clips as teaching aids in tooth carving practical session**
	1520 – 1530		OTL 3	**Learning styles of the medical students and teaching methods in Faculty of Medicine, Universiti Teknologi MARA**
	1530 – 1540		OTL 4	**The cognitive effect of blended educational program: A Comparative study**
	1540 – 1550		OTL 5	**Teaching the cardiac exam to first year medical students**
	1550 – 1600		OTL 6	**A descriptive study on peer initiated, peer assisted learning at the Faculty of Medicine, Colombo, Sri Lanka**
	1600 – 1610		OTL 7	**An approach in integrated teaching of Malnutrition**
	1610 – 1620		OTL 8	**The Impact of e-learning in medical education in Korea**
	1620 – 1630		OTL 9	**Teaching public health: seminar or lecture?**

Day 2 – Thursday, 24th March 2011
Free Paper Session 1

Chairperson/ Venue	Time	Category	Code No	Title
Indika Karunatilake (Sri Lanka) / & **Kunagorn Wongtimarat** (Thailand) Venue: MPH 2 (2.07.04), Level 2	1500 – 1510	Curriculum Development	OCD 1	**The student's voice: Strengths and weakness of the undergraduate medical curriculum at faculty of medicine, University of Colombo, Sri Langka**
	1510 – 1520		OCD 2	**Enhancing integration in pre-clerkship curriculum – Lessons learned at Universiti Teknologi MARA, Malaysia**
	1520 – 1530		OCD 3	**The construction of a curriculum map for curriculum management, review and reform**
	1530 – 1540		OCD 4	**Medical students' knowledge and attitude toward plagiarism**
	1540 – 1550		OCD 5	**Challenges of medical education in University of Science & Technology, Sana'a-Yemen**
	1550 – 1600		OCD 6	**Patient safety in medical curriculum: why and how?**
	1600 – 1610		OCD 7	**Teaching patient safety using the WHO curriculum guide for medical students**
	1610 – 1620		OCD 8	**A commentary on the relevance of global independent commission report - health professionals for a new century: transforming education to strengthen health systems in an interdependent world.**
	1620 – 1630		OCD 9	**Analysis of medical professionalism core attributes**
Kun Kwang (Korea) & **Yong Rafidah** (Malaysia) Venue: Seminar Room 4 (1.10), Level 1	1500 – 1510	Clinical Education	OCE 1	**Improving clinical skills competence by reducing cognitive load**
	1510 – 1520		OCE 2	**Unifying teaching of diagnostic reasoning for medical students**
	1520 – 1530		OCE 3	**How should communication skills be adapted for Arab patients?**
	1530 – 1540		OCE 4	**Stressor factors of clinical environment from the view point of nursing students of Hazrat Zeinab Nursing & Midwifery College- Yasuj -2007**
	1540 – 1550		OCE 5	**Comparing role play and group discussion educational methods on the knowledge and attitude of interns of Jahroom Medical School about how to breaking bad news in 2009**
	1550 – 1600		OCE 6	**Initial experience of a rural health posting for medical students in Sri Lanka**
	1600 – 1610		OCE 7	**Students' perception on the attainment of essential clinical competencies: experience in one medical school**
	1610 – 1620		OCE 8	**An evaluation on the computer-assisted self-directed learning in acute emergency medicine**
	1620 – 1630		OCE 9	**How do UAE medical students respond to unprofessionalism in the clinical setting?**

Day 2 – Thursday, 24th March 2011
Free Paper Session 1

Chairperson/ Venue	Time	Category	Code No	Title
Ray Peterson (Australia) Venue Seminar Room 3 (1.09), Level 1	1500 – 1510	Final Selections	SLO 1	**Assessment in PBL tutorials: is it an assessment of language skill?**
	1510 – 1520		SLO 2	**Attitude Of First Year Medical Students Towards Interprofessional Teamwork**
	1520 – 1530		SLO 3	**Current status of student assessment during clinical training in Japanese medical schools: results from a national survey**
	1530 – 1540		SLO 4	**Medical education registrars: a workforce model for building medical education capacity**
	1540 – 1550		SLO 5	**How well are your medical students doing? - An analysis of enneatypes by stress points**
	1550 – 1600		SLO 6	**Scenario based teaching – "teaching with a role play"**
	1600 – 1610		SLO 7	**MOMED – moblie learning for clinical medical students.**
	1610 – 1620		SLO 8	**Perception regarding the quality of group interaction during brain-storming session of Problem Based Learning (PBL) at Melaka Manipal Medical College (MMMC), India**

Day 3 – Friday, 25th March 2011
Free Paper Session 2

Chairperson/ Venue	Time	Category	Code No	Title
Jennifer Perera (Sri Lanka) & **Qing Wang** (China) Venue: MPH 4 (2.07.06), Level 2	1130 – 1140	Assessment/ Evaluation	OAE 10	**The congruence between students peer assessment with tutors evaluation of students performance in small group discussions**
	1140 – 1150		OAE 11	**Community-based training of medical and nursing students through community social responsibility – The IMU Experience.**
	1150 – 1200		OAE 12	**Klang valley educators' perception on the use of chinese medicine for the promotion of health and treatment of diseases**
	1200 – 1210		OAE 13	**Knowledge and stigma on HIV/AIDS patients among medical students at a Public University in Malaysia**
	1210 – 1220		OAE 14	**Student perceptions of the formal and informal curriculum: Implications for the learning strategies used by students**
	1220 – 1230		OAE 15	**What can be learnt from the twinning program FMUP & FPUKM**
	1230 – 1240		OAE 16	**Retention of knowledge of fluids, electrolytes & acid-base disorders by semester 10 students of International Medical University**
	1240 – 1350		OAE 17	**Facts regarding medical colleges admission test (MCAT) in Punjab, Parkisttan: The good, the bad and the ugly**
	1250 – 1300			

Day 3 – Friday, 25th March 2011
Free Paper Session 2

Chairperson/ Venue	Time	Category	Code No	Title
Juriah Abdullah/ Jae Won Choi (Korea) Venue: MPH 3 (2.07.05), Level 2	1130 – 1140	Teaching/ Learning	OTL 10	**Stress level among final year USM Bachelor of Pharmacy students during drug information services clerkship**
	1140 – 1150		OTL 11	**How to structure small groups for better performance**
	1150 – 1200		OTL 12	**Clinical concept maps: Student perceptions of a novel tool to learn complex clinical cases**
	1200 – 1210		OTL 13	**Structured grouping of students to enhance learning during small group interactions**
	1210 – 1220		OTL 14	**Miniworkshops – a new instructional strategy consisting of brief interactive educational sessions with hands-on exercises and feedback**
	1220 – 1230		OTL 15	**Can a movie revolutionize the attitudes of medical students, who are just starting their career?**
	1230 – 1240		OTL 16	**Learning style preferences: a comparison between Indian and Malaysian students**
	1240 – 1250		OTL 17	**The effectiveness of Structured Clinical Instruction Module (SCIM) and video training in accelerating students` self confidence in neonatal resuscitation**
	1250 – 1300		OTL 18	**Final year undergraduate pharmacy students' expectation and satisfaction in outpatient / counselling clerkship**
Chen Yu Sui (Malaysia) & **Pongsak Wannakrairot** Venue: MPH 2 (2.07.05), Level 2	1130 – 1140	PBL	OPBL 1	**Expectation of a tutor on the tutorial skills from medical students of different learning styles**
	1140 – 1150		OPBL 2	**Integrating e-PBL to promote individual reasoning ability**
	1150 – 1200		OPBL 3	**Preliminary steps to collect validated cases in a "PBL scenario bank"**
	1200 – 1210		OPBL 4	**Problem based learning as a tool for developing 'soft' skills: perceptions of the new medical undergraduates**
	1210 – 1220		OPBL 5	**Students' perception of PBL in relation to their learning experiences**
	1220 – 1230		OPBL 6	**Modified Team-Based Learning (TBL) supports Problem-Based Learning (PBL) as formative assessment to secure student's knowledge**
	1230 – 1240		OPBL 7	**The PBL curriculum offers ample opportunities for learning / teaching of professionalism and ethics**

Day 3 – Friday, 25th March 2011
Free Paper Session 2

Chairperson/ Venue	Time	Category	Code No	Title
Kishore Deepak (India) & **Lee Young Mee** (Korea) Venue Seminar Room 4 (1.10), Level 1	1130 – 1140	Others	OO 1	**The four choices model for responding to religious health beliefs in a Muslim setting**
	1140 – 1150		OO 2	**Challenges facing Malaysian students entering The MB ChB Programme: A qualitative study**
	1150 – 1200		OO 3	**Status quo of laws and regulations on pharmacists for interprofessional collaboration in Japan**
	1200 – 1210		OO 4	**Unhappy doctors: a challenge to health care reform in sudan**
	1210 – 1220		OO 5	**Significant factors affecting academic achievement among the first year health sciences undergraduate at Universiti Putra Malaysia**
	1220 – 1230		OO 6	**Student's perpectives on educational environment in Medical Faculty University of Andalas**
	1230 – 1240		OO 7	**Determining the learning style of final year medical students using the Group Embedded Figures Test (GEFT)**
	1240 – 1250		OO 8	**Knowledge about A/H1N1 and willingness to take A/H1N1 vaccination among undergraduate medical students: Are there differences?**
Ray Peterson (Australia) Venue: Seminar Room 3 (1.09), Level 1	1130 – 1140	Final Selection	SLO 9	**Do video triggers in PBL cause cognitive overload?**
	1140 – 1150		SLO 10	**"Strugglers" and "achievers" among medical students in Sri Lanka – a comparative study**
	1150 – 1200		SLO 11	**Perceptions and practices of self-directed learning in small group sessions for undergraduate medical students**
	1200 – 1210		SLO 12	**Acute emergency teaching for final year medical students using advanced patient simulator: A preliminary evaluation**
	1210 – 1220		SLO 13	**The performance of IPL/MPL (Inter Professional Learning/Multiple Professional Learning) in PBL (Problem-Based Learning) in Medical education of Peking University**
	1220 – 1230		SLO 14	**Assessment of non-functioning distractors in multiple-choice questions**
	1230 – 1240		SLO 15	**A simulation-based curriculum for medical students transitioning to the ward environment improves performance of clinical skills**
	1240 – 1250		SLO 16	**Attitude of first year medical students towards interprofessional teamwork**

Day 3 – Friday, 25th March 2011
Free Paper Session 3

Chairperson/ Venue	Time	Category	Code No	Title
Nilesh Kumar (Malaysia) & **Marlar Than** (Myanmar) Venue: MPH 4 (2.07.06), Level 2	1530 – 1540	Assessment/ Evaluation	OAE 18	**Attitude towards learning, a predictor of educational wear-out among Iranian medical sciences students**
	1540 – 1550		OAE 19	**Quality of feedback given to clinical students in Oman**
	1550 – 1600		OAE 20	**Social accountability of medical schools: new standards to promote the concept**
	1600 – 1610		OAE 21	**Computer based immediate feedback and learning in pharmacology**
	1610 – 1620		OAE 22	**Medical faculty selection criteria as predictor of academic performance**
	1620 – 1630		OAE 23	**Creating a culture of best evidence medical education in Malaysian medical schools – ideas for action**
	1630 – 1640		OAE 24	**Global accreditation trends in medical education**
Muhammad Zafar (Saudi Arabia) & **Adrianta** (Indonesia) Venue: MPH 3 (2.07.05), Level 2	1530 – 1540	Assessment/ Education & Teaching Learning	OAE 25	**Students perception of service quality in a private medical university in Malaysia**
	1540 – 1550		OAE 26	**Does training improve construct quality of one best answer questions?**
	1550 – 1600		OAE 27	**Self assessment during undergraduate PBL tutorials**
	1600 – 1610		OAE 28	**Incourse assessment and counseling to improve atudent performance**
	1610 – 1620		OTL 19	**Introducing a new lesson on configuration of teeth identification and communication**
	1620 – 1630		OTL 20	**Medical education and millennium development goals**
Myung Hyun Chung (Korea) & **Alam Sher Malik** (Malaysia) Venue: MPH 2 (2.07.04), Level 2	1530 – 1540	Clinical Education & Postgradu-ate/ Faculty	OPGF 1	**Changes in Singapore medical students specialty interests in the clinical years**
	1540 – 1550		OPGF 2	**Factors influencing the choice of dissertation topic in post graduate trainees**
	1550 – 1600		OPGF 3	**A novel approach to the prioritization of needs of faculty development programs**
	1600 – 1610		OPGF 4	**Stress and stressor among postgraduate medical trainees: initial findings**
	1610 – 1620		OCE 9	**How do UAE medical students respond to unprofessionalism in the clinical setting?**
	1620 – 1630		OCE 10	**Implicit knowledge of ethics and professionalism in medical students in their clinical years at the international medical university**
	1630 – 1640		OCE 11	**A pilot study on learning medical ethics in undergraduate medical education**

Day 3 – Friday, 25th March 2011
Free Paper Session 3

Chairperson/ Venue	Time	Category	Code No	Title
	1530 – 1540		IRI 7	**Relationship among glasser's basic needs levels, academic marks, and creativity scores of medical students**
Saroj Jayasinghe (Sri Lanka) & **Nemuel S Fajutagana** (Philipines) Venue Seminar Room 4 (1.10), Level 1	1540 – 1550	Innovations	IRI 8	**A survey on the reliability and validity of assessment tools of midwifery students at the final examination in Mashhad Nursing & Midwifery Faculty**
	1550 – 1600		IRI 9	**Students grand round in internal medicine**
	1600 – 1610		IRI 10	**Providence "Sister Teams" model: An Innovative approach to meet the new ACGME standards**
	1610 – 1620		IRI 11	**Webinar and synchronous transnational collaborative learning: a recent innovation in medical education**
	1620 – 1630		IRI 12	**Shadow Housemanship "Oncall" Emergency Stimulation (SHOES)**
	1630 – 1640		IRI 13	**A way to improve the validity and reliability of viva voce Examination**
	1640 – 1650		IRI 14	**Innovation in teaching and learning clinical skills in an undergraduate PBL curriculum**
	1650 – 1700		IRI 15	**Elective course for personal development – what new life-skills appeal to medical students?**

Free Paper Concurrent Sessions

International Medical University
Bukit Jalil, Kuala Lumpur

Day 2 – Thursday, 24th March 2011
Free Paper Session 1

Time	Presentations				
	Assessment/ Evaluation	Teaching/ Learning	Curriculum Development	Clinical Education	Final Selections
1500 – 1510	OAE 1	OTL 1	OCD 1	OCE 1	SLO 1
1510 – 1520	OAE 2	OTL 2	OCD 2	OCE 2	SLO 2
1552 – 1530	OAE 3	OTL 3	OCD 3	OCE 3	SLO 3
1530 – 1540	OAE 4	OTL 4	OCD 4	OCE 4	SLO 4
1540 – 1550	OAE 5	OTL 5	OCD 5	OCE 5	SLO 5
1550 – 1600	OAE 6	OTL 6	OCD 6	OCE 6	SLO 6
1600 – 1610	OAE 7	OTL 7	OCD 7	OCE 7	SLO 7
1610 – 1620	OAE 8	OTL 8	OCD 8	OCE 8	SLO 8
1620 – 1630	OAE 9	OTL 9	OCD 9		

Day 3 – Friday, 25th March 2011
Free Paper Session 2

Time	Presentations				
	Assessment/ Evaluation	Teaching/ Learning	Curriculum Development	Others	Final Selections
1130 – 1140	OAE 10	OTL 10	OPBL 1	OO 1	SLO 9
1140 – 1150	OAE 11	OTL 11	OPBL 2	OO 2	SLO 10
1150 – 1200	OAE 12	OTL 12	OPBL 3	OO 3	SLO 11
1200 – 1210	OAE 13	OTL 13	OPBL 4	OO 4	SLO 12
1210 – 1220	OAE 14	OTL 14	OPBL 5	OO 5	SLO 13
1220 – 1230	OAE 15	OTL 15	OPBL 6	OO 6	SLO 14
1230 – 1240	OAE 16	OTL 16	OPBL 7	OO 7	SLO 15
1240 – 1250	OAE 17	OTL 17		OO 8	SLO 16
1250 – 1300		OTL 18			

Day 3 - Friday, 25th March 2011
Free Paper Session 3

Time	Presentations			
	Assessment/ Evaluation	Assessment/ Evaluation & Teaching Learning	Clinical Education & Postgraduate/ Faculty	Innovations
1530 – 1540	OAE 18	OAE 25	OPGF 1	IRI 7
1540 – 1550	OAE 19	OAE 26	OPGF 2	IRI 8
1550 – 1600	OAE 20	OAE 27	OPGF 3	IRI 9
1600 – 1610	OAE 21	OAE 28	OPGF 4	IRI 10
1610 – 1620	OAE 22	OAE 29	OCE 9	IRI 11
1620 – 1630	OAE 23	OTL 19	OCE 10	IRI 12
1630 – 1640	OAE 24	OTL 20	OCE 11	IRI 13
1640 – 1650				IRI 14
1650 – 1700				IRI 15

Oral Presentations

International Medical University
Bukit Jalil, Kuala Lumpur

Oral : Assessment & Evaluation	
Code No	**Title**
OAE 1	**Formative media-based quiz in semester 1 – Innovation by the students in an integrated medical curriculum** [1]Chia Yew Kong, [2]Mitra Nilesh K *International Medical University, Kuala Lumpur, Malaysia*
OAE 2	**Promoting institutional change through modified progress testing in Medical School of University of Brawijaya, Indonesia** Rachmad Sarwo Bekti and Sri Winarsih, Retty Ratnawaty *University of Brawijaya, East Java, Indonesia*
OAE 3	**Assessment of learning using clickers** Kyi-Beom Lee, Su-Jin Chae *Ajou University School of Medicine, Yeongtong Gu Suwon, Korea*
OAE 4	**Development of computer-based testing for national competence examination for medicine** SP Dewi, Ghozali M, Yulherina, Wikaningrum R, Harijanto, Wonodirekso S, Setiawan, Achmad TH *Joint Committee of National Medical Competence Examination, Sumedang, Indonesia*
OAE 5	**Comparison of scores between global rating and osler- is there any difference?** Shazia Fakhar *Shifa College of Medicine, Islamabad, Pakistan*
OAE 6	**Does English language competency affect the academic performance? An analysis using the subject of anatomy** Vindye Ravin Walpola, Adikari Mudiyanselage Panduka Mahamithawa, Malini Udupihille *Rajarata University of Sri Lanka, Anuradhapura, Sri Lanka*
OAE 7	**Comparison between absolute and relative standard setting methods - is there a happy medium** JWM Chow, G Levin, D Winterbourne *University of London, London, United Kingdom*
OAE 8	**Some aspects on development of integrated examination** Chinzorig Choijiljav, Otgonbayar Damdinbazar, Solongo Bandi, Oyuntsetseg Sandag, Dungerdorj Densmaa, Amarsaikhan Dashtseren *Health Science University of Mongolia, Mongolia*
OAE 9	**An analysis of tutor assessment in problem-based learning tutorials: comparison of relative precision using 3-point and 5-point likert scoring methods** Jae Won Choi *Yonsei University Wonju College of Medicine, Wonju, Korea*
OAE 10	**The congruence between students peer assessment with tutors evaluation of students performance in small group discussions** Bela Mayvani Rachman, Sheilla Rachmania *University of Jember, Jember, Indonesia*
OAE 11	**Community-based training of medical and nursing students through community social responsibility – the IMU experience** Koh Kwee Choy, Sheila Rani, Nazimah Idris, Ng Char Hong, Chiu Chee Kidd, Gabriel Tan Chee Kiong, Rosalind Loo Chi Neo, Inthirah Narayanan, Kew Siang Tong *International Medical University, Kuala Lumpur, Malaysia*

Oral : Assessment & Evaluation	
Code No	**Title**
OAE 12	**Klang valley educators' perception on the use of chinese medicine for the promotion of health and treatment of diseases** Yeoh Peng Nam, Lim Chun Wei, Cho-Min Naing, Mak Joon Wah, Koh Chia Yan, Koh Wan Ling, Tan Ee Vern and Liow Sook Mee *International Medical University, Kuala Lumpur, Malaysia*
OAE 13	**Knowledge and stigma on HIV/AIDS patients among medical students at a public university in Malaysia** Cheong Ai Theng, Chew, Boon How, Lee Kuan Pen, Julia Bt Adam Chua, Walter Lim Yung Chwen *University Putra Malaysia, Selangor, Malaysia*
OAE 14	**Student perceptions of the formal and informal curriculum: Implications for the learning strategies used by students** Jianzhen Zhang, Raymond Peterson and Leva Ozolins *The University of Queensland, Queensland, Australia*
OAE 15	**What can be learnt from the twinning program FMUP & FPUKM** Dewi SP, Hidayat EM, Achmad TH *Universitas Padjadjaran, Bandung, Indonesia*
OAE 16	**Retention of knowledge of fluids, electrolytes & acid-base disorders by semester 10 students of International Medical University** Hla Yee Yee, Nyunt Wai, Thamilselvam Pavadi, Jaghmoni Kaur *International Medical University, Kuala Lumpur, Malaysia*
OAE 17	**Facts regarding medical colleges admission test (MCAT) in Punjab, Parkisttan: The good, the bad and the ugly** Junaid Sarfraz Khan *University of Health Sciences, Lahore, Pakistan*
OAE 18	**Attitude towards Learning, a predictor of educational wear-out among Iranian medical sciences students** Elhaam Fakhaari, Kiaanush Jahaanpur *Alzahra University, Tehran, Iran*
OAE 19	**Quality of feedback given to clinical students in Oman** Yousef Al Weshahi, Khalfan Al Shaaili, Yarab Al Bulushi, Tariq Al Araimi, Ahmed Al Dhahli *Sultan Qaboos University, Muscat, Oman*
OAE 20	**Social accountability of medical schools: New standards to promote the concept** Mohamed Elhassan *Abdalla Jazan University, Jazan, Saudi Arabia*
OAE 21	**Computer based immediate feedback and learning in pharmacology** Dinesh K Badyal, Suman Bala, Tejinder Singh *Christian Medical College,Ludhiana, India*
OAE 22	**Medical faculty selection criteria as predictor of academic performance** Dedeh Supantini, Lusiana Darsono, Winsa Husin *Maranatha Christian University, Bandung, Indonesia*
OAE 23	**Creating a culture of best evidence medical education in Malaysian medical schools – Ideas for action** Yong Rafidah Abdul Rahman *Cyberjaya University College of Medical Sciences, Selangor, Malaysia*
OAE 24	**Global accreditation trends in medical education** Richard F. Minicucci *Nixon Peabody LLP, New York, United State of America*
OAE 25	**Student's perception of service quality in a private medical university in Malaysia** Francis Achike *International Medical University, Kuala Lumpur, Malaysia*

Oral : Assessment & Evaluation	
Code No	**Title**
OAE 26	**Does training improve construct quality of one best answer questions?** Assoc. Prof. Dr. Kwa Siew Kim, Assoc. Prof. Dr. Loh Keng Yin, Prof. Dato' Dr. Kew Siang Tong *International Medical University, Kuala Lumpur, Malaysia*
OAE 27	**Self assessment during undergraduate PBL tutorials.** Soumendra Sahoo *Melaka Manipal Medical College, Melaka, Malaysia*
OAE 28	**Incourse assessment and counseling to improve student performance** Tamkin Khan *JN Medical college, Uttar Pradesh, India*

Oral : Curriculum Development	
Code No	**Title**
OCD 1	**The student's voice: Strengths and weakness of the undergraduate medical curriculum at faculty of medicine, University of Colombo, Sri Lanka** Ranasinghe P, Perera YS, Olupeliyawa A, Karunathilaka *University of Colombo, Colombo, Sri Lanka*
OCD 2	**Enhancing construction in pre-clerkship curriculum – Lessons learned at Universiti Teknologi MARA, Malaysia** Alam Sher Malik *Universiti Teknologi MARA, Shah Alam, Malaysia*
OCD 3	**The instruction of a curriculum map for curriculum management, review and reform** Lap Ki Chan, Nivritti Patil, Mary SM Ip *The University of Hong Kong, Hong Kong*
OCD 4	**Medical students' knowledge and attitude toward plagiarism** Shahryar Yazdani *Army University of Medical Science, Iran*
OCD 5	**Challenges of medical education in University of Science & Technology, Sana'a-Yemen** Majed Mohammed Saleh Wadi *Universiti Sains Malaysia (USM), Kelantan, Malaysia*
OCD 6	**Patient safety in medical curriculum: why and how?** Abdullah Abdu Almikhlafy *University of Science & Technology, Sana'a, Yemen*
OCD 7	**Teaching patient safety using the WHO curriculum guide for medical students** Young Mee Lee, Ducksun Ahn, Jung Yul Park *Korea University College of Medicine, Seoul, Korea*
OCD 8	**A commentary on the relevance of global independent commission report - health professionals for a new century: Transforming education to strengthen health systems in an interdependent world** Bipin Batra *National Board of Examination, New Delhi, India*
OCD 9	**Analysis of medical professionalism core attributes** Yera Hur and Keum-ho Lee *Konyang University, Daejeon, Korea*

Oral : Clinical Education	
Code No	**Title**
OCE 1	**Improving Clinical Skills Competence by Reducing Cognitive Load** [1]Patricia Régo and [2]Ray Peterson *[1]University of Queensland, Australia, [2]University of Adelaide, Australia*
OCE 2	**Unifying teaching of diagnostic reasoning for medical students** Jing-Jane Tsai *National Cheng Kung University, Tainan, Taiwan*
OCE 3	**How should communication skills be adapted for Arab patients?** Deen Mohammad Mirza *United Arab Emirates University, Abu Dhabi, United Arab Emirates*
OCE 4	**Stressor factors of clinical environment from the view point of nursing students of Hazrat Zeinab Nursing & Midwifery College - Yasuj - 2007** A.Mobaraki, A. Mahmoudi, Z.Mohebi *Yasuj University Of Medical Science, Yasuj, Iran*
OCE 5	**Comparing role play and group discussion educational methods on the knowledge and attitude of interns of Jahroom Medical School about how to breaking bad news in 2009** Managheb S E and Mosalanejad N *Jahrom University Of Medical Sciences, Jahrom, Iran*
OCE 6	**Initial experience of a rural health posting for medical students in Sri Lanka** Moahmed Rifdy Mohideen *International Medical University, Kuala Lumpur, Malaysia*
OCE 7	**Students' perception on the attainment of essential clinical competencies: Experience in one medical school** Sh Sulaiha Aznal[1], Chiu Chee Kid[2], Nazimah Idris[1], Khairunniza Gharib[3] *International Medical University, Kuala Lumpur, Malaysia*
OCE 8	**An evaluation on the computer-assisted self-directed learning in acute emergency medicine** Wai Sun Choo, Toh Peng Yeow, Li Ching Lee, Samuel Easaw, Tow Shung Tan, Amir Khir, Richard Li-Cher Loh *Penang Medical College, Penang, Malaysia*
OCE 9	**How do UAE medical students respond to unprofessionalism in the clinical setting?** Deen M. Mirza[1], Engela A. Prinsloo and Muhammad J. Hashim *United Arab Emirates University, Abu Dhabi, United Arab Emirates*
OCE 10	**Implicit knowledge of ethics and professionalism in medical students in their clinical years at the International Medical University** Sivalingam Nalliah *International Medical School, Kuala Lumpur, Malaysia*
OCE 11	**A pilot study on learning medical ethics in undergraduate medical education** Nurjahan M Ibrahim, Ruri Ashida, Sheba D Mani *International Medical School, Kuala Lumpur, Malaysia*

Oral : Problem-Based Learning (PBL)	
Code No	**Title**
OPBL 1	**Expectation of a tutor on the tutorial skills from medical students of different learning styles** Kuo-Inn Tsou, M.D[1], Gin-Hong Lee, PhD[1], Chaou-Shune Lin, M.D[1], Ting-Ywan Chou, M.D[1], Ming-Shun Hsieh, M.D[2] and Hsi-Chin Wu, M.D[3] *Fu Jen Catholic University, Taipei, Taiwan* *Taipei Medical University, Taipei, Taiwan* *China Medical School, Taichung, Taiwan*

Oral : Problem-Based Learning (PBL)	
Code No	**Title**
OPBL 2	**Integrating e-PBL to promote individual reasoning ability** Kyong-Jee Kim, Changwon Kee *Sungkyunkwan University School of Medicine, Korea*
OPBL 3	**Preliminary steps to collect validated cases in a "PBL scenario bank"** Elisabeth Rukmini, Diana Anggajaya *Atma Jaya Catholic University, Jakarta, Indonesia*
OPBL 4	**Problem-Based Learning as a tool for developing 'Soft' skills: Perceptions of the new medical undergraduates** Joachim Perera, Wai Phyo Win, Katrina Azman, Nidish Balachandren *International Medical University, Kuala Lumpur, Malaysia*
OPBL 5	**Students' perception of PBL in relation to their learning experiences** Lian LH, Tan NH and Sim SM *University of Malaya, Kuala Lumpur, Malaysia*
OPBL 6	**Modified Team-Based Learning (TBL) supports Problem-Based Learning (PBL) as formative assessment to secure student's knowledge** Arnuparp Lekhakula. *Prince of Songkla University, Songkla, Thailand*
OPBL 7	**The PBL curriculum offers ample opportunities for learning / teaching of professionalism and ethics.** Francis I. Achike, *International Medical University, Bukit Jalil, Kuala Lumpur, Malaysia*

Oral : Postgraduate & Faculty	
Code No	**Title**
OPGF 1	**Changes in Singapore medical students specialty interests in the clinical years** R Mahendran, Edimansyah Abdin *Institute of Mental Health/Woodbridge Hospital, Buangkok View, Singapore*
OPGF 2	**Factors influencing the choice of dissertation topic in post graduate trainees** Shazia Fakhar *Shifa College of Medicine, Islamabad, Pakistan*
OPGF 3	**A novel approach to the prioritization of needs of faculty development programs** Kishore K Deepak And Balchandra V Adkoli *All India Institute Of Medical Sciences, New Delhi, India*
OPGF 4	**Stress and stressors among postgraduate medical trainees: initial findings** Dr Muhamad Saiful Bahri Yusoff, Ahmad Fuad Abdul Rahim Fuad *Universiti Sains Malaysia, Kubang Kerian, Kelantan.*

Oral : Teaching & Learning	
Code No	**Title**
OTL 1	**Classroom good teaching practices in an online faculty development programme** [1]Hem Lata, Rashmi Vyas[2], Tejinder Singh[2], Anshu[3], and William Burdick[4] *Dayanand Medical College, Ludhiana, India, Christian Medical College, Ludhiana, India, Sevagram Medical College, Wardha, India, [4]FAIMER, Philadelphia*
OTL 2	**Use of video clips as teaching aids in tooth carving practical session** Bo Bo Ko, Mon Mon Tin Oo, Tin Maung Aung *International Islamic University Malaysia, Selangor, Malaysia*

Oral : Teaching & Learning	
Code No	**Title**
OTL 3	**Learning styles of the medical students and teaching methods in Faculty of Medicine, Universiti Teknologi MARA** Rukhsana Hussain Malik, Alam Sher Malik, *Universiti Teknologi MARA, Selangor, Malaysia*
OTL 4	**The cognitive effect of blended educational program: a comparative study** Mosalanejad L[1], Alipor A[2], Zandi B[2], Zare H[2], Shobeiri SM[2] *Jahrom University of Medical Sciences, Jahrom, Iran, Payame Noor University, Tehran, Iran*
OTL 5	**Teaching the cardiac exam to first year medical students** Dawn M Schocken *University of South Florida College of Medicine, Florida, United States of America*
OTL 6	**Peer initiated, peer assisted learning at the Faculty of Medicine, Colombo, Sri Lanka** Jennifer Perera, Chathuri Maddumarachchi, Nuwangika Marcellin, Gominda Ponnamperuma *University of Colombo, Colombo, Sri Lanka*
OTL 7	**An approach in integrated teaching of Malnutrition** Ganapathy Kalaiselvan[1], Amol R Dongre[2], Mahalakshmy T[3] *Sri Manakula Vinayagar Medical College*
OTL 8	**The impact of e-learning in medical education in Korea** Kyong-Jee Kim, Changwon Kee *Sungkyunkwan University School of Medicine, Korea*
OTL 9	**Teaching public health: seminar or lecture?** Rashid AK & Sapna SP *Penang Medical College, Penang, Malaysia*
OTL 10	**Stress level among final year USM bachelor of pharmacy students during drug information services clerkship** Siti Maisharah S.G, Sabariah Noor H, Nur Hafzan *Universiti Sains Malaysia, Penang, Malaysia*
OTL 11	**How to structure small groups for better performance** Amina Sadik, Vladimir Bondarenko and Csaba Fulop *Touro University, Nevada, United State*
OTL 12	**Clinical reasoning maps©: student perceptions of a novel tool to learn complex clinical cases** Jayasinghe Saroj, Perera YS, Ranasinghe H.M, Samarakoon P.S.M.J.U, de Abrew K.A.G, Ponnamperuma G *University of Colombo, Colombo, Sri Lanka*
OTL 13	**Structured grouping of students to enhance learning during small group interactions** Komaladevi Sampath Damodar, Jayalakshmi Lingaraj, Shabina &Shankarappa, *Vydehi Institute of Medical Sciences and Research Center, Karnataka, India*
OTL 14	**Miniworkshops – a new instructional strategy consisting of brief interactive educational sessions with hands-on exercises and feedback** Muhammad Jawad Hashim *United Arab Emirates University, Abu Dhabi, United Arab Emirates*
OTL 15	**Can a movie revolutionize the attitudes of medical students, who are just starting their career?** Samarakoon U., de Abrew A., Karunathilake I., Ponnamperuma G., Rodrigo C *University of Colombo, Colombo, Sri Lanka*
OTL 16	**Learning style preferences: a comparison between Indian and Malaysian students** Heethal Jaiprakash[1], Sahana G N[2], Sarmishtha Ghosh[1], Chitra Govindaraja[1] *[1]MAHSA University College, Kuala Lumpur, Malaysia* *[2]Hassan Institute of Medical Sciences, Hassan, India*

Oral : Teaching & Learning	
Code No	**Title**
OTL 17	**The effectiveness of Structured Clinical Instruction Module (SCIM) and video training in accelerating students` self confidence in neonatal resuscitation** Erfanian *Mashhad University of Medical Sciences, Iran*
OTL 18	**Final year undergraduate pharmacy students' expectation and satisfaction in outpatient /counselling clerkship** Siti Maisharah S.G, Sabariah Noor H, Nur Hafzan *Universiti Sains Malaysia, Penang, Malaysia*
OTL 19	**Introducing a new lesson on configuration of teeth identification and communication** Ashfaq Akram[1], Nooreiny Maarof[1], Nabishah bt Mohamad[1], and Abdel Hamid Zaki[2] *Universiti Kebangsaan Malaysia, Selangor, Malaysia, Universiti Sains Malaysia, Penang, Malaysia.*
OTL 20	**Medical education and Millennium Development Goals** Dr Maha Abdulaziz Mohammed and Dr Abdullah Abdu Almikhlafy *University of Science & Technology, Sana'a, Yemen*

Oral : Others	
Code No	**Title**
OO 1	**The four choices model for responding to religious health beliefs in a Muslim setting** Deen Mohammad Mirza *United Arab Emirates University, Abu Dhabi, United Arab Emirates*
OO 2	**Challenges facing Malaysian students entering the MB ChB Programme: A qualitative study** Muhammad Aaqil Azman Firdaus *University of Manchester, United Kingdom*
OO 3	**Status quo of laws and regulations on pharmacists for interprofessional collaboration in Japan** Miho Utsumi[1], Hirotaka Onishi[2],Yuichiro Sato [1,3], Yumiko Yamaoka[1] *Kobe Gakuin University, University of Tokyo,Tokyo, Japan*
OO 4	**Unhappy doctors: A challenge to healthcare reform in Sudan** Abeer. A.Mannan, Ahmed. B. Ali *Federal Ministry of Health, Khartoum, Sudan*
OO 5	**Significant factors affecting academic achievement among the first year health sciences undergraduate at Universiti Putra Malaysia** Chew Boon How, Maung Maung Aye, Chua Hui Shan, Ameera Ashyila Binti Kamaruzaman, Muhammad Mukmin Bin Abdullah Sukri and Pang Sui Jin *University Putra Malaysia, Selangor, Malaysia*
OO 6	**Student's perpectives on educational environment in medical faculty University of Andalas** Detty Iryani *University of Andalas,West Sumatra, Indonesia*
OO 7	**Determining the learning style of final year medical students using the Group Embedded Figures Test (GEFT)** Sivalingam Nalliah and Loh Keng Yin *International Medical University, Kuala Lumpur, Malaysia*
OO 8	**Knowledge about A/H1N1 and willingness to take A/H1N1 vaccination among undergraduate medical students: Are there differences?** Rachel Tan Yi Ping[1, 2] and Cho Naing[1] [1]*International Medical University, Kuala Lumpur, Malaysia* [2]*University of Melbourne, Australia*

Oral Presentation

Assessment/Evaluation

ABSTRACT NUMBER: OAE 1

Formative media-based quiz in semester 1 – Innovation by the students in an integrated medical curriculum

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Background
Active involvement of students enhances learning process. Learning strategies should be designed to target visual as well as auditory learners1. A student association planned formative quiz in the later weeks of semester 1 so that the students can assess their learning. Videos and pictures taken by senior students in the museum and pictorial problem-solving quizzes from lecturers were used for the quiz.

The objective of the present study was to assess the students' perception about a student association-initiated innovative assessment project in semester 1 of medical curriculum.

Methods
One faculty coordinated with the senior students and lecturers to prepare media-based quizzes integrating anatomy, physiology, biochemistry and genetics. The quiz was administered in two phases. At first, all the students (100) answered a set of quiz questions in paper. After assessment, top 15 were chosen and divided into 5 groups. Next round was done with the 5 groups; prizes were given to 1st and 2nd groups. After the feedback was given, the questionnaire was given to analyze the perception of the students.

Results
47.3% agreed and 41.8 % strongly agreed that the quiz was effective for preparing for OSPE. 50.5% agreed and 30.8% strongly agreed that the quiz was effective to prepare for summative examination. Only 24% either disagreed or remained neutral on whether questions assessed semester 1 contents or not. 41% agreed and 56% strongly agreed that the quiz was an enjoyable learning tool. Only 44% students agreed that the process reduced stress for impending summative test. Regarding improvement in communication skill, 38% disagreed and 36% did not comment. 80% students agreed that the team-work done was useful for future learning.

Conclusion
According to the students' perception, student-initiated formative media-based quiz can be an effective and enjoyable tool in the learning of content and developing team-work in early semesters.

ABSTRACT NUMBER: OAE 2

Promoting institution change through modified progress testing in Medical School of University of Brawijaya, Indonesia

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Background
Medical School of University of Brawijaya has adopted a new integrated curriculum since 2007. The academic director had established a task force to evaluate its impact on student achievement.

Methods
Team had proposed progress testing like assessment as it was used widely to measure different cohort achievement. The content of the test have been designed to be created by entire blocks contributor based on designated and elaborated blueprint combining USMLE Step 1 for basic biomedical sciences and institution blueprint for basic biomedical sciences competency. The content and construct validity were done by lecturer panels involving each block coordinator and department. The 200 vignette A and R-type MCQ chosen items were tested on all student cohorts, and it was announced as mandatory prerequisite requirement for all students to enter their clinical placement. Item analysis was performed after the test administration and the results were analyzed.

Results
963 students from 4 cohorts underwent the exam. The mean scores of each cohort were significantly different ($p<0,05$) where the senior student cohort was better. There are no significant mean scores difference between new curriculum cohort and the traditional one as well as their consecutive top marks.

Conclusion
Considering that the traditional cohort was at their last semester before entering clinical placement, the new curriculum cohort was considered in progress of surpassing their former college. This result had attracted some reluctant lecturers to see the new curriculum approach differently. It has become a vital asset for the institution to maintain its track record as best ten institution passing national exam. This effort has been prompted to be the initial program in promoting institutional development through assessment.

ABSTRACT NUMBER: OAE 3
Assessment of learning using clickers

Kyi-Beom Lee & Su-Jin Chae
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Background
Formative assessment is a regular feature of many medical curricula. However, feedback from such assessment is not provided to students in a way which helps them identify deficiencies. The purposes of this study are to investigate students' perception of classes where formative assessment using clicker was carried out and to explore the use of clicker to improve medical education.

Methods
Forty-two sophomores at Ajou University School of Medicine were studied from 2009 through 2010 longitudinally. Whenever a learning objective ended in class, a short quiz was given using clicker, immediate answers were verified by the professor and the students, and any feedback on the questions and answers were noted. Pathological practice used TBL. First, the professor provided each team with medical histories and case slides. The students discussed the cases to solve the given problems. Next, each team made a presentation. Finally, the students took a quiz related to the cases using clicker and were given feedback on the answers and the cases.

Results
Students responded that formative assessment using clicker helped them to organize learning contents: 72% in 2009, and 87% in 2010. There was none who dozed or showed behaviors unrelated to study during lectures and practices were underway.

Conclusion
Assessing oneself is perhaps the most difficult, yet most important, skill that must be undertaken for effective study. If feedback is strengthened using pre-designed questions or quiz, education will be much more effective than simple repetitive study, making it a good method to heighten students' interest in learning.

ABSTRACT NUMBER: OAE 4
Development of Computer-based testing for National Competence Examination for Medicine

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Introduction
The implementation of technology in education has been used widely. Using computer for testing (CBT) is driven by the efficiency of time, greater variety of media and higher quality of images. Due to these advantages, there is a need to apply CBT for National Competence Examination for Medicine (NCE) in Indonesia. Feaseability study is considered essential.

Methods
This is a descriptive study using questionnaire distributed to all Indonesian medical schools regarding capacity on computer and human resources. A CBT try out was conducted and the examinees were asked about the software and hardware.

Results
Only 30 out of 72 medical schools responded completely. There were 8 possible institutions for try out. The try out was conducted in 6 centers with 352 examinees. The participants responded positively; 92.05% said the software was user friendly but only 56.73% mentioned the view was good, and 81.71% agreed the facilities was sufficient. However only 60.40 % would like to have CBT further.

Discussion
It is an early sign for the CBT to success in the near future albeit additional information details on better facilities is obligatory.

Conclussion
The CBT is feseable to be implemented.

ABSTRACT NUMBER: OAE 5
Comparison of scores between global rating and OSLER- is there any difference?

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Introduction
With advancement and reforms in medical education, new assessment tools are being introduced to assess various competencies of students. It is also the need of hour to assess the reliability of those assessment tools. This study was intended to know the correlation of marks obtained by two different assessment tools with the total marks, based on the hypothesis that there is a difference in the scores of students assessed by two separate assessment tools i.e global rating and Objective Structured Long Examination Record (OSLER).

Methods
This study was conducted at Shifa College of Medicine. The subjects were all fourth year students undergoing internal assessment. The alternate batches of students (sample size 94) were assessed in their long case by global rating and OSLER method. The marks obtained in long case by these methods (30 marks) were compared with the total marks (70 marks). Data was entered in SPSS version 14. In addition to basic descriptive statistics, Alpha coefficient, inter item correlation and P- value is calculated.

Results
The mean marks of students assessed by OSLER method was found to be 68.86 +_ SD 13.39 while the mean of total marks of the same group was 43.62 +_ SD 8.4. Alpha co- efficient of this group was 0.651while inter item correlation was 0.483. Significant correlation was observed with P value of 0.001. The mean marks obtained by global rating method was 64.822 +_ SD 10.4 while the mean of total marks of this second group was 65.56 +_SD 9.67. Alpha coefficient of this group was 0.592 while inter item correlation was 0.420 with a P-value of 0.003.

Conclusion
OSLER method was found to have slightly better correlation with the final scores as compared to global rating with a p- value of 0.001, and it is recommended that if be applied for scoring of long cases.

ABSTRACT NUMBER: OAE 6

Does English language competency affect the academic performance? An analysis using the subject of anatomy

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Background
In order to compete with other medical graduates and work in a global setting and to stay updated with new knowledge, the universities in Sri Lanka have being using English as a medium of instruction of medical students for several decades. However, English Language Proficiency (ELP) among medical students entering the universities varies widely and they often find it difficult to cope in first and second years of medical education. It was found that ELP influences academic performance in the latter half of the course in selected disciplines such as in forensic medicine1 and the clinical viva-voce. 2,3 The aim of this study was to determine the influence of ELP on the academic performance in Anatomy.

Methods
A retrospective analytical study carried out with marks obtained by a batch of students for MCQ, SEQ, Viva-voce in Anatomy and the marks obtained for English Language. The data were analysed using Pearson's correlation to assess the association and estimate the relationship.

Results
The means (SD) of marks obtained in the MCQ, SEQ and Viva voce components were 50.03 (10.10), 56.02 (10.87) and 63.40 (12.04) respectively. Two point seven percent of the total variation in MCQ marks could be explained by the linear relationship between ELP and MCQ marks. (Pearsons's correlation (r) = 0.165 and P <0.036). Similarly only 5.5% of the total variation in SEQ marks could be explained (r = 0.235 and P < 0.003).

There was no obvious relationship between students' ELP and their performance in Anatomy viva-voce (r = 0.027, P < 0.731, Coefficient of determination = 0.07%).

Conclusion
A low but significant level of correlation between ELP and theory components in Anatomy was observed. However, it is clear that ELP did not affect the viva component in Anatomy where the student is rarely expected to explain complicated concepts.

ABSTRACT NUMBER: OAE 7

Comparison between absolute and relative standard setting methods - is there a happy medium

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Background
Criterion-referenced standard setting methods are desirable, especially in high-stake assessments designed to test competency in professionals. These are transparent and take test difficulty into account but are time-consuming. To make assessment more efficient, we sought a transparent method that takes test difficulty into consideration and is more cost-effective.

Method
We modelled passmarks and pass rates of over 40 written assessments sat by 4 cohorts of students using a norm-referenced method, with the 95th percentile as the internal determinant of test difficulty (Cohen's method). We compared the passmarks and pass rates derived by Cohen's method with the actual passmarks and pass rates set using the Ebel or Angoff criterion-referenced methods.

Results
Passmarks set by Cohen's method were such that the pass rates were not dissimilar to the actual pass rates.

Conclusion
Using a norm-reference method, with the 95th percentile as the internal determinant of test difficulty, we derived passmarks and pass rates similar to that deduced by criterion-referenced standard setting methods.

Take home message
A relative method of standard setting that takes test difficulty into account can achieve results similar to those achieved by criterion-referenced methods with significant resource savings.

ABSTRACT NUMBER: OAE 8

Some aspects on development of integrated examination

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Health Science University of Mongolia, Mongolia

Background
Students at Health Sciences University of Mongolia have taken Integrated Examination on premedical subjects including Economics, Biology, Philosophy, Physics, Chemistry, Management, Psychology, Information technology and system, Ecology and Organic Chemistry since the academic year 2008-2009. The 67.2 percent of the students who have successfully passed final examination failed the first integrated examination. We need to analyze how concrete the result on the evaluation of the integrated examination is. Also 36.3% of the students who took chemistry final examination failed but they successfully passed general admission test that involves Chemistry and Biology.

Objectives:
1. To analyze the reliability of integrated examination
2. To compare the evaluation between the integrated examination and final examination

Methods
We used descriptive cross sectional design and assessed using the quality and quantity approaches. We analyzed 14 different exam materials. /1539 students took examination during the academic year 2008-2009 and 2009-2010/. We used KR formula 20 for the calculation of reliability coefficient. Discrimination indices and levels of difficulty were analyzed by QuikScore II. We picked up 187 materials from 334 students who study at School of Medicine. We used statistical method SPSS 15.0 to compare the evaluation between the integrated examination and final examination.

Results
On the evidence that we have (0.87) integrated examination was more reliable. 30.9% of the tests were easy, 22.8%

were moderate and tests with high positive discrimination indices (0.2-1.0) were 61.2%. Difficulty factors were different depending on the type of tests (A (P=45-90), K (P=35-95), E (P=7.0-60)). According to the evaluation of integrated examination, some subjects such as Chemistry, Biology, Philosophy and Physics, the students who had successfully passed general admission test got higher scores (89.4%) during the integrated examination.

Conclusion

1. The study shows that the integrated examination is reliable and good assessment for students' knowledge.
2. The differences between the integrated and final examinations were smaller and scores were similar although the results of final examination of all subjects (Chemistry, Biology, Philosophy and Physics) were not claimed through the means of integrated examination except for Economics.

ABSTRACT NUMBER: OAE 9

An analysis of tutor assessment in problem-based learning tutorials: comparison of relative precision using 3-point and 5-point Likert Scoring methods

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Background

The aim of this study was to examine whether there were advantages in scoring precision using an observation checklist rated on a 5-point Likert scale versus a 3-point Likert scale during PBL tutorials.

Methods

Two hundred and six students enrolled in the first year of Wonju College of Medicine at 2009-2010 were recruited to participate in this study. During PBL courses of 1-week duration, each student studied 2 problems in a group of 7-8 under the guidance of a tutor. The tutor evaluated the performance of each student in the group based on elements including individual participation, individual ability for problem recognition, individual preparedness, the level of the achievement of the learning objectives for the group, and group activity in general. During the PBL tutorials of 2009, the performance of each student was scored on a 1-3 scale with scores of 1 indicating 'poor', 2 indicating 'good', and 3 indicating 'excellent' (group 2009). During the PBL tutorials of 2010, the performance of each student was scored on a 1-5 scale (group 2010). In this study, the reliability for the score of each element of the assessment instrument was estimated by evaluating intra-rater and inter-rater correlations.

Results

The overall reliability of the assessment instrument was 0.622 in the group 2009 and 0.684 in the group 2010 (Cronbach's). In the group 2010, a stronger correlation was observed between 'individual participation', 'individual ability for problem recognition', and 'individual preparedness'. Especially the correlation coefficient between 'individual ability for problem recognition' and 'individual preparedness' increased approximate two fold (0.343 in the group 2009 - 0.688 in the group 2010). The intra-rater correlation coefficient for 'individual participation' and 'individual ability for problem recognition' also increased in the group 2010. The inter-rater correlation for these elements did not show any consistent difference between two groups.

Conclusion

Accoriding to the results of this study, the 5-point Likert scale may improve the overall scoring precision during the PBL tutorials as compared with the 3-point Likert scale. It is most evident when the intra-rater correlation was evaluated for 'individual participation' and 'individual ability for problem recognition'. This study also suggests that the inter-rater correlation can not be improved by increasing the number of scale points of Likert items.

ABSTRACT NUMBER: OAE 10

The congruence between students peer assessment with tutors evaluation of students performance in small group discussions

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University of Jember, Jember, Indonesia

Abstract

Faculty of Medicine, University of Jember has been developing the SPICES model curriculum since 2006. In this curriculum, students should be active learners to increase their academic achievement. The previous study results showed that the academic achievement had not increased or has yet to reach the target achievement index score. There were factors that could help in triggering one's learning motivation. An example will be the tutor's evaluation. This study was conducted by comparing results of the student evaluation using peer assessment method and tutor's evaluation in 12 small group discussions. The results then compared using Spearman's Rank Correlation Coefficient formula. The results showed that the coefficient is 0.79, which means the tutor's evaluation of student's performance in a small group discussion was congruent with the students' perception. However, there were 17% of the tutors that did not show congruence with the students' perception in this evaluation. This study showed that the system used in Faculty of Medicine, University of Jember already congruence with the standard of the SPICES model curriculum. The institution needs to do a re-evaluation for the group of tutors that didn't show congruence with the students' perception. This study also showed that the institution needs another study to seek other factors that can help to trigger the students' learning motivation.

ABSTRACT NUMBER: OAE 11

Community-based training of medical and nursing students through Community Social Responsibility – the IMU experience

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Background

The International Medical University (IMU) has a unique 8 outcome-based integrated curriculum. In 2007, IMU adopted an Orang Asli village in Labu, Negeri Sembilan as part of its Community Social Responsibility (CSR) where medical and nursing students provide health care activities. We evaluated the effectiveness of the CSR activity in achieving the 8 outcomes.

Method
Students who participated in village health program between January-November 2010, rated questions (below) based on the 8 IMU outcomes, where 1=strongly-disagree, 2=disagree, 3=somewhat-disagree, 4=somewhat-agree, 5-agree, 6=strongly-agree.

1. I was able to apply basic science in the activity.
2. I was able to apply my clinical skills in the activity.
3. The activity helps me improve my communication skills.
4. The activity provided insight into family and community issues in health care.
5. The activity contributes to self-directed learning.
6. The activity enhances my professionalism, ethics and personal development.
7. The activity helps in disease prevention and health provision.
8. The activity helps in developing critical thinking and research.

Frequency, mean and one-sample t-test using test-value=4 were calculated with SPSSv17. $p < 0.05$ statistically significant.

Results
93 medical and 15 nursing students participated. Mean, standard-deviation (SD), 95%-confidence-interval (CI) and p-value for each question were:

Q1: 4.35, SD 1.001, CI 0.15 – 0.54, p=0.001
Q2: 5.00, SD 0.911, CI 0.83 – 1.17, p=0.000
Q3: 5.14, SD 0.912, CI 0.96 – 1.31, p=0.000
Q4: 5.16, SD 0.845, CI 1.00 – 1.32, p=0.000
Q5: 4.05, SD 1.067, CI -0.16 – 0.25, p=0.652
Q6: 4.86, SD 0.976, CI 0.67 – 1.05, p=0.000
Q7: 4.98, SD 1.059, CI 0.78 – 1.18, p=0.000
Q8: 4.08, SD 1.117, CI -0.13 – 0.30, p=0.438

Conclusion
The CSR activity achieved 6 of 8 outcomes ($p < 0.05$). Activities encouraging self-directed learning, critical thinking and research can be tailored into the CSR activity to achieve the remaining 2 outcomes.
Key Words: community, community-based teaching, medical education, medical program, nursing program

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ABSTRACT NUMBER: OAE 12
Klang valley educators' perception on the use of Chinese medicine for the promotion of health and treatment of diseases

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Background
Chinese medicine is the cultural heritage of the Chinese and has a history of five thousand years. It has a holistic approach to healthcare, built on the philosophy that a person's health reflects a person's mental, physical, spiritual and emotional balance in relation to his environment. Over the last 5 years the Ministry of Health Malaysia has introduced certain practices of Chinese Medicine, viz, acupuncture and herbal remedies into a growing number of public hospitals. It is timely to find out how our teachers and university educators perceive the use of Chinese medicine in healthcare.

Objective
To investigate the perception of educators in Klang Valley on the use of Chinese medicine (CM) for the promotion of health and treatment of diseases.

Methods
A survey was conducted among 100 university lecturers from two universities and 100 secondary school teachers from four secondary schools using a self-administered, validated survey form, developed in-house. The study was approved by the IMU Research and Ethics Committee. Data was analysed using SPSS (version 16), analysis of variance (ANOVA), Student's t-test, and linear regression. Values of various groups were compared and the difference considered significant if the p value was < 0.05.

Results
The mean knowledge and perception scores of the 200 educators were 40.0% (poor) and 56.9% (moderate), respectively. There was no significant difference in the knowledge and perception towards CM between males and females and between age groups. Educators of Chinese origin were more knowledgeable about CM and they have more favourable perceptions toward CM. Respondents showed poor knowledge about certain aspect of CM treatment, a significant number believing that CM can be used to treat acute conditions of heart attack (41.0%), asthma attack (62.5%) and attack of stroke (53.0%). Educators believed they knew most about herbal remedies and acupuncture, however their perceived knowledge of nine CM practices was generally poor (43.2%). Most (74.0%) believed that CM could complement western medicine. They would use (68.5%) or recommend (64.5%) CM to their friends and relatives to treat minor ailments. Educators favoured incorporating CM into the curricula of Health Sciences and want government to control the standard of education and practices of CM practitioners.

Conclusions
Educators have favourable perceptions toward CM, despite their limited knowledge of CM. Educators acknowledged that CM may be beneficial as a complement to conventional medicine in the promotion of health and treatment of diseases.

ABSTRACT NUMBER: OAE 13
Knowledge and Stigma on HIV/AIDS Patients among Medical Students at a Public University in Malaysia

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Background
Medical students are future doctors who are trained to treat all kind of diseases including people with HIV/AIDS (PWH) without prejudice. This study was to determine the factors associated with knowledge on HIV/AIDS and stigma towards PWH among medical students.

Methods
This is a cross sectional study conducted in a public university, Malaysia. The participants were preclinical-year (year 1 and year 2) and clinical-year (year 4 and year 5) medical students. Simple randomisation was carried out after stratification of medical students into preclinical and clinical-year. The questionnaire was consisted of socio-

demographic data, items assessing HIV/AIDS knowledge and items assessing stigmatisation attitudes towards PWH. It was self-administered questionnaire.

Results
340 participants were recruited. Majority were female (64.1%). 60.6% were Malay, followed by Chinese (31.2%) and Indian (7.1%). 42.4% of the clinical and 12.4% of the preclinical students reported previous encounter with PWH. The clinical year students had significantly higher mean score of knowledge ($t=-5.171$, $p<0.001$). Those with previous encounters with PWH were shown to have significantly higher knowledge scores ($t=5.462$, $p<0.001$). For the stigmatization assessment, pre-clinical students are significantly more stigmatizing in subscale of "attitudes towards imposed measures" ($t=3.917$, $p<0.001$). On the other hand, clinical students were found to be significantly less comfortable in handling HIV/AIDS cases ($t=0.039$, $p=0.039$). Knowledge score, gender, previous encounters with PWH and religiosity showed insignificant association with all three stigmatization subscales among all the medical students.

Conclusions
Clinical students were found to be less comfortable in handling PWH although with higher knowledge. Measures need to be taken to improve on the readiness of these future doctors in handling HIV/AIDS patients.

ABSTRACT NUMBER: OAE 14
Student perceptions of the formal and informal curriculum: Implications for the learning strategies used by students

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Background
To establish the extent to which students use the formal and informal curriculum for their learning and preparation for examinations, and whether there were relationships with student characteristics on use of the formal and informal curriculum.

Methods
A validated survey instrument was administered to 522 medical students. Factor component analysis and internal consistence, descriptive analysis and comparisons with demographic variables were completed.

Results
The principal component analysis showed that KMO results is 0.79 and Barlett's Test is significant ($p<.001$) and produced 8 factors, which explained a total of 75.7% of the variance, with individual factors contributing range from 5.8% to 12.9%. The internal consistency for the factors proved to be reliable, with an alpha coefficient above 0.70 (0.72 - 0.96).

Of the total students, only 41.7% agreed that the formal curriculum was clear and covered all of what they needed to know (59.5%). Nearly 80% of the students reported that they were overwhelmed by the amount of work that was perceived necessary to complete the formal curriculum, with 74.3% believing that the informal curriculum helped them pass the exams. The informal curriculum activities which aided learning were past student notes (85.8%), PBL tutor guides (62.7%), self-organised study groups (62.6%), and peer-led tutorials (60.2%).

Conclusion
Students used both the formal and informal curriculum to prepare for examinations with large numbers using a variety of methods to meet their learning needs. This placed a higher demand on students in completing the course. Students in Year 1 relied more on the use of past exam papers and school-based resources, whereas Year 2 students were more inclined to use a broader range of learning options from the informal curriculum. Eight reliable scales were identified that verify student perceptions of the formal and informal curriculum.

ABSTRACT NUMBER: OAE 15
What can be learnt from the twinning program FMUP & FPUKM

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Background
Faculty of Medicine Universitas Padjadjaran (FMUP) and Fakulti Perubatan University Kebangsaan Malaysia (FPUKM) established collaboration in the form of Twinning Program (TWP). This program run a medical program in which the first 3-years preclinical phase is conducted in FMUP and the second 3-year clinical phase conducted in FPUKM. This program was started in 2006 with approximately 50 students enrolled per year. After 2 batches of students continuing their study in UKM, a program evaluation was done on FMUP part. This paper evaluated the curriculum conducted in FMUP, and the students result and satisfaction while studying in FMUP.

Methods
The students filled out an evaluation. The data were analyzed based on several criteria including learning process, facility and impact of learning. This is important for quality improvement and continuity of the program.

Results and Conclusion
The result shows that there were no differences between student from TWP and regular students in the FPUKM in the clinical phase in Kuala Lumpur. The students are satisfied with their study in Bandung, and although there had been difficulties with certain terms or procedures in the Clinical Phase, they can adapt in 6 months.

ABSTRACT NUMBER: OAE 16
Retention of knowledge of fluids, electrolytes & acid-base disorders by semester 10 students of International Medical University

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Background
Whilst cognitive knowledge acquired in the preclinical years may not be utilized per se in clinical practice, important clinical decisions rest on basic sciences principles in certain key areas like fluids and electrolytes. Yet, even housemen seem to lack the knowledge1. Many studies demonstrated a decline in basic science knowledge as students' progress through medical education2. Since the IMU's outcome-based, PBL-focused integrated curriculum, with early clinical exposure aims at facilitating clinical reasoning and enhancing retention of knowledge acquired in the

preclinical years, this study was done to find out (1) the level of knowledge retention on fluids, electrolytes and acid-base by IMU students in the final lap of their undergraduate training; (2) their perceptions on the usefulness of the preclinical teaching.

Methods

Semester 10 students (shadow housemen) were given Extended-Matching Questions (EMQ) and single response MCQs (total: 20 questions focused on clinical applications) during an informal encounter, to be answered anonymously without checking on the answers. They were also asked to rate on the usefulness of the learning experience in the preclinical years and to comment.

Results

The return rate was 91.2% (73/ 80). All respondents attempted all EMQs/MCQs scoring 9.2 ± 2.8(mean± SD) while 80.8% (59/73) gave ratings (6.6± 1.8); 41.1% (30/73) scored ≥10. while 83% (49/59) gave rating ≥6. There was no correlation between the scores and the rating (r = 0.01); 36.6% (26/73) gave open comments: 46% (12/26) reflected on the need for more clinical correlation or case-based approach in the preclinical years for better retention and application of knowledge.

Conclusion

The retention of knowledge by Semester 10 students (41% scoring ≥10) was comparable to that (41%) of housemen in the United Kingdom reported in a small study. The integrated curriculum in IMU is probably having some success in producing lifelong learners, though room for improvement exists.

ABSTRACT NUMBER: OAE 17

Facts regarding medical colleges admission test (MCAT) in Punjab, Pakistan: The good, the bad and the ugly

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Background

Each year approximately 20,000 candidates securing 60% and above marks in Higher Secondary School Certificate (HSSC) / Equivalent Examinations contest for the 3,205 (2,889 Open Merit and 316 Self Finance) seats in Punjab, Pakistan by sitting for MCAT conducted by the Government of Punjab.

Purpose of Study

To identify patterns related to demographic, economic and educational backgrounds, over a two year period, in the population that sits for the MCAT and to see how HSSC and MCAT marks predict future performance.

Method

Marks obtained by candidates in HSCC, MCAT and MBBS First Professional Part-I Examinations (hitherto referred to as 'Part-I') were entered into Statistical Package for Social Sciences (SPSS) v.16 and parametric tests were applied.

Results

In 2009, 18,090 candidates and in 2010, 18,486 sat in MCAT. Foreign-HSSC qualified (e.g. A-Levels) candidates scored higher marks in Part-I than the National-HSSC-examination qualified candidates even though they scored less in MCAT and HSSC Equivalence ($p<0.05$). Female students scored higher marks than males in HSSC ($p>0.05$), MCAT ($p>0.05$) and Part-I Theory, Practical, Viva Voce, Internal Assessment and Objectively Structured Performance Evaluation (OSPE) components ($p<0.05$). In both years students from D.G. Khan District Board scored highest marks in the HSSC Examinations ($p<0.05$) but least marks in MCAT in 2009 ($p<0.05$) and in Part-I in 2009 and 2010 ($p<0.05$). Students from 'tougher' Boards like Rawalpindi in 2009 and the Federal Board in 2010 who scored least marks in HSSC scored highest marks in MCAT and Part-I ($p<0.05$). Linear Regression on Part-I by taking HSSC and MCAT marks as independent variables showed that the MCAT marks exerted the greatest positive influence consistently at 0.104 (2009) and 0.106 (2010). In 2010 HSSC marks were shown to exert a negative influence (-0.08) on Part-I.

Conclusion

The results indicate the need to standardize HSSC education and examination across all district Boards and also shows that the MCAT is a better predictor of Medical Students' future performance than the HSSC Examinations.

ABSTRACT NUMBER: OAE 18

Attitude towards learning, a Predictor of Educational Wear-out among Iranian Medical Sciences students

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Background

From a constructivist perspective, the learner is the focus of the teaching/learning activity and any attempt at improving this activity needs to be inclusive of the learner as the learners' characteristics are the roots of many problems in the process of learning. One such characteristic is the learners' attitude towards learning and one of these problems is educational wear-out which develops when the psycho-somatic pressures that are applied to the learner during the course of learning are increased. Such pressures have both internal and external causes. Negative attitude towards learning could be the most significant internal cause of these pressures and wear-out. Fortunately, attitudes are learned and changeable and perhaps we can decrease the extent of wear-out or prevent its occurrence or increase attitude improvement. However, doing so requires knowing whether those learners who suffer from educational wear-out have in fact negative attitudes towards learning. Accordingly, are learners with positive attitude toward learning are wear-out free?

Methods

A group of 240 medicine students from Tehran universities of medical sciences was randomly selected and then tested in similar educational settings. The method of data collection was questioning and the instruments used were an attitude scale and a wear-out measure.

Results

Findings show a significant negative correlation between the two constructs (-0.74 at 0.01 level) which was used to define a prediction equation.

Conclusion

Founded on results, students' attitude towards school is as a predictor of educational wear-down. It should be necessary to be alert about attitudes towards self, learning, & school as

internal causes of wear-down. Hopelessness about future, negative perception of socio-economic situation, political and cultural pressures may be considered as establishers. The place, situations and intera ctions and also academic field are correlated variables to attitude towards academic learning.

ABSTRACT NUMBER: OAE 19

Quality of feedback given to clinical students in Oman

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Introduction
Feedbackin medical education is defined as "Specific information about the comparison between a trainee's observed performance and a standard, given with the intent to improve the trainee's performance". It is considered a crucial element to learning clinical medicine. Unfortunately clinical students frequently report the lack of feedback. Therefore, evaluating the quality of feedback students receive is an important step in determining what needs to be rectified. The aim of this study is to evaluate the quality of feedback given to clinical students at Sultan Qaboos University in Oman.

Materials & Methods
A random sample of 166 clinical medical students received a 35-item purpose-made questionnaire comprising 3 parts. Part one dealt with different qualities of the feedback such as clarity and regularity. Part two dealt with the competencies discussed during the feedback such as examinations and medical ethics. Part three dealt with the overall quality of feedback. A Likert scale of 1-5 was used to rate the quantitative items.

Results
Eighty two percent of students think that the quality of feedback is below average. "Clarity of language" was the highest rated quality noted (mean3.48) while "Scheduled feedback session" was the lowest rated quality (mean 1.91). Among the competencies discussed during feedback students agreed that discussion of physical examination skills was the most frequent (mean 3.53) while research was the least (Mean 1.64).

Conclusion
The results echoe on previous literature findings of the lack of feedback and confirm its existence at our medical school. Using the details of this study's findings could help in designing solutions to improve the quality of feedback during clerkships.

ABSTRACT NUMBER: OAE 20

Social accountability of Medical Schools: New Standards to promote the concept

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Background
The overall goal of the medical schools is to provide personnel capable of sharing effectively in the development of the health status in their communities. All the functions of the medical school must support this ultimate goal. These new concepts in medical education emerged after the Flexner report which demonstrated both the vision and courage to shift the focus in medical education from being individual and curative to being social and preventive. Social accountability is defined by WHO as the obligation of the medical schools to direct their education, research and service activities towards addressing the priority health concerns of the community, region, and/or nation they have a mandate to serve. A socially accountable school is looking beyond its immediate educational mandate. The aim of this work is to develop a process for measuring social accountability of medical schools within the accreditation system

Methods
The standards in the existing accreditation systems were classified into process, content and outcome standards. It was reviewed in terms of addressing social accountability using the social accountability grid suggested by Boelen and Heck. A new set of standards addressing social accountability was suggested.

Results

	Process Standards %	Content Standards %	Outcome Standards %
New Standards	51.5	28	20.5
WFME Standards	72.2	22.2	5.6
AMC Standards	77.1	17.1	5.8
LCME Standards	78.6	14.5	6.9

	Domains and values			
	Education			
	Relevance %	Quality %	Cost-effectiveness %	Equity %
New Standards	4.5	11.4	1.5	2.3
WFME	19.4	8.3	-	-
AMC	11.4	11.4	-	5.7
LCME	5.3	5.3	-	3.8

	Domains and values			
	Research			
	Relevance %	Quality %	Cost-effectiveness %	Equity %
New Standards	3.8	2.3	1.5	1.5
WFME	2.8	2.8	-	-
AMC	2.9	-	-	-
LCME	-	0.8	-	-

	Domains and values			
	Service			
	Relevance %	Quality %	Cost-effectiveness %	Equity %
New Standards	6.1	4.5	1.5	3
WFME	-	-	-	-
AMC	-	-	-	-
LCME	0.8	-	-	-

Conclusion
Social accountability should be addressed in the accreditation system standards to promote the role of medical schools in the community.

ABSTRACT NUMBER: OAE 21

Computer based immediate feedback and learning in pharmacology

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Background
The traditional written assessment system in undergraduate medical teaching in India comprises long and short answer questions. Students are rarely offered feedback and when provided it usually is quite late or is non-specific and of little formative value. Many of the objectives of feedback can be achieved with information technology.

Methods
Feedback modules in pharmacology (FMP) were prepared in two topics -cardiovascular system (CVS) and chemotherapy- using blank templates on "Hot Potatoes" software. The FMP included MCQ-based questions and two versions were developed: one with feedback (FMP-1) and the other without feedback (FMP-2). The FMP-1 module provided immediate feedback for each option the student chose. For the right answers, reinforced feedback was provided while for the wrong answers corrective feedback was provided with explanations. FMP-2 had the same questions and answers, but without the feedback comments. Second year medical students (n=48) at Christian Medical College, Ludhiana. Students were randomized to two groups A and B, to receive the module in CVS, i.e., FMP-1 and FMP-2 respectively. Cross over design was adopted to expose all students to immediate feedback comments.

Results
The module with immediate feedback was much better appreciated by students. Students spent more time on FMP-1 (41 minutes vs. 25 minutes; $p<0.0001$); however, there was no statistically significant difference in mean test scores (17 vs. 16.6; p value>0.05). Students suggested that immediate feedback was an excellent way for self assessment, and improved their deeper understanding of content areas. They also felt that it supplemented their traditional learning habits and stimulated them to read more. Students enjoyed its non-threatening nature.

Conclusion
Immediate feedback improved the deeper understanding of pharmacology and its relevance to medicine, although immediate feedback did not improve test scores. Overall, immediate feedback had a positive impact on student's self-directed learning.

ABSTRACT NUMBER: OAE 22

Medical faculty selection criteria as predictor of academic performance

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Background
Selection of students into medical school must have two distinct purposes : to enroll students who are most likely to succeed academically and subsequently become to competent and professional medical practitioners.

Numbers of applicants and numbers of students accepted in Faculty of Medicine of Maranatha Christian University (MCU) tend to increase each year. The selection of medical students in our school was based on General Admission Test (GAT) prepared by admission committees of MCU. To improve the selection procedure, since 2009, our Faculty developed Medical Faculty Admission Test (MFAT) as additional selection tool to assess cognitive attributes in basic biomedical sciences.

Objectives
The objective of this study is to evaluate how well our selection criteria predict academic performance, and to identify if there are any aspects of prior academic history and student's characteristic that correlate with subsequent students performance during medical program.

Methods
We studied students cohort of the 2009 entry years. There were 172 students included in this study. Selection criterias were GAT and MFAT. Prior academic performance explained by student's score on National High School Examination (NHSE) and student's score on biology. Academic performance was defined as cumulative first year Grade Point Average (GPA).
Correlation between GPA and selection criteria or student's characteristic was calculated using Pearson's correlation coefficient. Multiple regression was performed for each outcome variable with all variables included. Statistical significance was set as $P < 0.05$

Results
Multivariate analysis showed that MFAT and GAT were correlated with student's academic performance.

Conclusion
Medical Faculty of MCU selection criteria correlate with academic performance.

ABSTRACT NUMBER: OAE 23

Creating a culture of best evidence Medical education in Malaysian Medical schools –ideas for action

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Background
Best Evidence Medical Education (BEME) is defined as "the implementation by teachers and educational bodies in their practice, of methods and approaches to education based on the best evidence available". BEME supports the creation, dissemination and utilization of systematic reviews and other best evidence available in topics related to medical education. The movement towards BEME – which is much desired in Malaysian medical schools – concur with calls for better accountability and quality in medical education; not just teaching based on tradition, opinion and intuition.

Description
Nation-wide culture of BEME in Malaysian medical schools best begin with strengthening medical education departments and increasing efforts towards teaching excellence in each medical school. Compulsory training in basics of medical education need be a requirement for all medical teachers. Educator tract positions need be created and of equal career advancement as investigator colleagues. Curriculum committees need to lead by utilization of BEME in teaching and decision- making processes. Scholarship in teaching should be a major criterion for yearly appraisal,

promotion and reflected in the academic staff reward system.

At national level, more collaborative efforts need to be taken by Malaysian medical schools. Local associations for medical teachers need to be strengthened. Addressing influential decision-makers can be more effective collectively, especially by urging for prioritizing, promoting and adequate nation-wide support for educational research. Increasing accessibility to educational journals and systematic reviews can also be done as a team effort.

Other initiatives include starting a national BEME awareness initiative, taking regional leadership in BEME as well as accessibility to international BEME networks and collaborations.

Conclusion
A BEME culture will contribute to increased collegiality, professionalism and excellence in teaching among medical teachers of this country. Scholarly approaches to teaching eventually contribute to the raised standards in medical graduates, patient care and healthcare research.

ABSTRACT NUMBER: OAE 24
Global accreditation trends in medical education

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Background
The study identifies the impact of the actions of regulatory and accreditation bodies on medical education and physician mobility.

Material & Methods
The U.S.-based authors have an extensive client base made up of U.S. and other international academic medical centers. They advise these institutions on a wide range of GME and accreditation matters. This practice and their consulting activities require an in-depth understanding of ACGME, ACGME-I, AOA, ECFMG, LCME, and other bodies' standards, actions and recommendations impacting the domestic and international medical education continuum. The authors have reviewed current and proposed actions by accreditation and regulatory bodies and identified their impact on undergraduate and graduate medical education and physician mobility.

Results
Recent ECFMG policy changes will likely change the manner in which medical schools are accredited and trigger a worldwide effort to identify appropriate regional medical school accrediting bodies. The authors have discovered that some ACGME-I standards directly conflict with regional regulatory bodies. Moreover, some current ACGME-I standards, if strictly applied, likely conflict with significant regional cultural principles, belying compliance. While the domestic ACGME Institutional Requirements have evolved under the rubric of United States law, the ACGME International Institutional and Foundational Requirements likely conflict with the laws of various countries. Various countries' laws and cultural practices, including those related to harassment, disability, health insurance, contracts, labor and employment, have been identified by the authors. Accreditation- and regulatory-Impediments to physician mobility to practice in other countries are discussed.

Conclusion
Global trends in medical education lean strongly in the direction of raising standards through the use of more globalized accreditation protocols. There is a need to balance prescriptive and non-prescriptive accreditation standards to ensure that accreditation results reflect both the standards' intention and regional and cultural nuances. Innovative solutions for overcoming legal, operational, and cultural obstacles are offered.

ABSTRACT NUMBER: OAE 25
Student's perception of service quality in a private medical university in Malaysia

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Background
With the enabling legislation in 1996, there has been an exponential growth in the number of medical schools in Malaysia; currently 28, half of which are privately-owned and largely for profit. Without government subvention, among other factors, the schools are compelled to remain competitive for survival. This implies branding through a culture of quality service that would retain existing, and attract new customers, reduce cost, enhance corporate image, promote positive word-of-mouth recommendation and ultimately boost the corporate financial profile. This study was therefore conducted to evaluate the quality of customer (students) service provided by the International Medical University (IMU), Malaysia's premier private medical school. The research questions are:

1. Does the quality of service provided by IMU match students' expectations?
2. Do IMU priorities of service quality match students' priorities?

Methods
The SERVQUAL (service quality) instrument was used. Focused group discussions (FGD), approval of questionnaire by the IMU review board, and a pilot study were part of the validation process. Stratified sampling of senior (semester five, 120 (45%)) and junior (semester two, 146 (55%)) students was done. The questionnaire was administered immediately after a lecture class. Raw data were analysed for both descriptive and inferential statistics using the SPSS statistical software (version 11).

Results
Service quality expectation (8.1 - 8.3) exceeded the perception (5.2 - 6.0) scores for all dimensions on the nine-point Likert scale. The students rated Assurance, Reliability, Responsiveness, Empathy and Tangibility in that order of preference. They perceived IMU service quality was best in the Assurance and Tangibility domains-a convergence of students' preference (for Assurance) and institutional practice. IMU scores high on Tangibility (gap score 2.1), which happens to be the students' least preferred service quality domain. The students expressed dissatisfaction with the value they get for money.

Conclusion
The results show an agreement between students' priority for assurance that matches IMU practice, but reveals a misplacement of emphasis on Tangibility by IMU to the detriment of more student-valued dimensions (Reliability,

Responsiveness and Empathy). This information should guide strategic planning for improving service quality with the attendant benefits.

ABSTRACT NUMBER: OAE 26
Does training improve construct quality of one best answer questions?

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Background
Student assessment using One Best Answer Question (OBAQ) is valid, reliable and can test clinical application. Unfortunately not all academia know how to construct high quality OBAQs. Hence several workshops have been conducted from 2008 in the Clinical School of International Medical University to address this problem. This pilot study aims to evaluate the effect of training on construct quality of OBAQ used in Family Medicine (FM) Department.

Method
Twenty OBAQs from Semester 6 end of posting examination for FM in February 2007 were selected for comparison with 20 OBAQs used in August 2010. A scoring sheet based on the North American Examination Board is used to check for cognitive level and technical flaws. Quality OBAQs which test higher cognitive level of managing clinical problems should include a clinical scenario and clear question. Imprecise or vague terms and negatively-worded questions are best avoided. Answer options must be homogenous with one clearly correct answer and four plausible distractors. There must be no clues and grammatical or spelling errors.

Results
Results show only 14 out of 20 OBAQs in 2010 have a clinical stem compared to 7 in 2007. The total score for construct quality improves 22.0% after training from 44.3% (133/300) in February 2007 to 66.3% (199/300) in August 2010.

Conclusion
Training appears to improve the construct quality of OBAQs. Unfortunately due to conflicting commitments some staff never receive training. Hence training should be ongoing to capture untrained and newly-recruited staff. A vetting team is recommended to identify and rectify poorly constructed OBAQ. In conclusion, training can facilitate Faculty to construct better OBAQ. Further evaluation should also be conducted on OBAQs used in other disciplines.

ABSTRACT NUMBER: OAE 27
Self-assessment during undergraduate PBL tutorials

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Background
One of the major challenges is the use of strategies to assess students working in small groups. The use of self-assessment by students and tutor rating of students' performances appear to be integral parts of many PBL.

Methods
A random sample of 50 students were recruited from the total pool of 100 students who had their PBL session in small group of 10 students each. PBL triggers from the area of acute loss of vision and ocular trauma were given to each group. At the end of the session each student was given a self-assessment form broadly covering five aspects 1.Responsibility, 2.Information processing, 3.Communication, 4.Critical analysis and 5.Self-awareness. The questionnaires were filled using a Likert scale of Agree, Disagree and Undecided. Tutor also assessed the individual students using same criteria.

Results
In 60% cases self-assessment scores were higher than the tutor assessment. In 25% cases self-assessment scores were less and is 15% cases they were nearly.

Conclusion
Low achieving students often generously score themselves during self-assessment. And that issue needs to be further addressed for a productive justice to PBL concept.

ABSTRACT NUMBER: OAE 28
In-course assessment and counseling to improve student performance

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Background
Improved population health by producing professionally competent doctors who have good knowledge and skills and can cope with academic and professional stress as they have better mental health.

Objective
To improve the knowledge and skills of undergraduate students in OBG by improving student motivation for learning.
To counsel students who are underachievers in case of problems and to provide them social and academic support.

Methods
The 3rd year students posted in my unit and co-unit during their 1st clinical rotation in OBG for 8 weeks will be assessed at the end of 4 weeks by MCQ questionnaire and viva voce. Feedback will be given after this assessment and those lacking in performance will be given counseling in the following manner:

1. Exploration: personalized contact with the students to understand the student's concerns and to ask them to reflect about the reasons.
2. Conceptualization: of what is happening and what needs to be done for remedial action. Identifying the source, the nature and the severity of the problem and assessing the readiness of the student for change.
3. Plan: a concrete plan will be developed for each student depending on how much readiness he shows for change, his academic ability, and his situational and personal factors.
4. Action: the plan will be implemented with weekly follow-up and at the end of 8 weeks posting the students will be assessed again to compare their pre-counseling and post-counseling performance.

Conclusion
The project would help in improving student performance not only in OBG but other subjects as well. The counseling

would result in medical graduates who perform well as they have identified their strengths and weaknesses and therefore professionally they are more competent doctors

Curriculum Development

ABSTRACT NUMBER: OCD 1

The student's voice: Strengths and weakness of the undergraduate medical curriculum at faculty of medicine, University of Colombo, Sri Lanka

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Background
In medical education, feedback from students is essential in course evaluation and development. Students at Faculty of Medicine, University of Colombo complete a five year curriculum comprising of five streams. We evaluated the five year curriculum of the Faculty of Medicine, Colombo.

Methods
A qualitative research was conducted among recent graduates of the faculty. Students' opinion was collected from questionnaires, which were analysed and classified into common themes. A focus group discussion (FGD) based on these themes was conducted among two student groups, each comprising a facilitator, two observers and nine students selected as a representative sample from questionnaire respondents. FGDs were conducted using a semi-structured set of open-ended questions to guide participants and maintain consistency between groups. Verbal and non-verbal responses were transcribed and analysed.

Results
Questionnaire response rate was 82% (153/186). Students highlighted 68 and 135 different responses on strengths and weaknesses respectively. The FGD evaluated the reasons behind students' perceptions, attitudes, emotions and perceived solution. After analysis of both questionnaire and FGD results the following themes emerged: Module system was well organized and integrated, there were too many exams, however having frequent examinations were important to maintain focus, variety of clinical appointments gave students a good clinical experience, clinical appointments lacked specific objectives, need to have an assessment during clinical appointments was highlighted, having community and behavioural sciences streams were beneficial but too much time allocation and final year programmes of these streams were ineffective and stressful, duration of the course was too lengthy due to lack of proper organization, knowledge provided on pharmacology and pathology were inadequate.

Conclusion
This method provided an insight into students' attitude and perspectives of the present faculty curriculum. Qualitative feedback of students on the curriculum highlighted certain key areas that need attention and also possible solutions.

ABSTRACT NUMBER: OCD 2

Enhancing integration in pre-clerkship curriculum – Lessons learned at Universiti Teknologi MARA, Malaysia

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Background
Integration is the organisation of teaching matter by bringing together various aspects of the curriculum into a meaningful association. It helps medical students to become doctors who would adopt a holistic approach while treating a patient in the hospital or in the community. This paper describes the steps that were taken by the Faculty of Medicine (FoM), Universiti Teknologi MARA, Malaysia to enhance the curricular integration and the lessons learned through this exercise. This paper would be useful for the individuals and institutions that are in the process of integrating their curriculum or plan to do so in future.

Methods
FoM went through a massive exercise of integrating its pre-clerkship curriculum. The processes included: staff development; determination of the scope and level of integration; establishment of working groups and ascertaining their responsibilities; identification of learning outcomes including knowledge, skills and attitude; recognition of themes; development of comprehensive timetables; selection of assessment methods; communication with staff and students and planning of re-evaluation and revision. The newly integrated curriculum was implemented in the academic year of 2009/10.

Results
The Faculty faced the challenges mainly concerning with the preparation of the staff for the change. The issues relating to identification of core knowledge, overlap of content and implementation of the curriculum were dealt with effectively. The resulting 10 modules of the curriculum featured increased level of integration. Integrated multidisciplinary sessions and interactive lecture formats were added to the teaching/learning methods. An analysis of the staff and students' feedback as well as students' performance in the examinations indicated the approval and successful implementation of the integrated curriculum.

Conclusion
The process of developing an integrated, spiral, pre-clerkship curriculum yielded encouraging results as well as some specific innovations that other schools or individuals may find valuable to adapt for use in their own settings.

ABSTRACT NUMBER: OCD 3

The construction of a curriculum map for curriculum management, review and reform

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Background
The curriculum map described here allows the stakeholders to gain a complete comprehension of the curriculum and instantly access information on any area, which should enable the following: (a) teachers to plan their teaching, "what do the students know when they come to my session?"; (b) students to plan their learning, especially in curricula which rely significantly on self-directed learning, e.g. "how much more do I need to learn concerning the

topic I learned today?"; (c) accreditation bodies to know that all aspects of producing competent and professional medical graduates are covered.

Description
A database was constructed to include all the formal teaching and learning activities of the five-year MBBS programme at the Li Ka Shing Faculty of Medicine at The University of Hong Kong for the academic year of 2009/2010. For each activity, the database captured the title, the objective or outcomes, the year (first through fifth) and the name of the block/rotation/clerkship it is in, the mode of the activity (e.g. lecture, Problem-Based Learning, practical, etc), the duration, and the responsible department(s) and teacher(s). A website with high usability was designed to display all the information in the database, and hence the whole curriculum, in an intuitive and easy-to-navigate manner. The curriculum map also has an user-customizable search engine, which enables the user to search through the whole curriculum for activities that contain the search word(s) or phrase(s).

Conclusion
A curriculum map can make the whole curriculum transparent to different stakeholders. It holds the potential to be a useful tool for the planning of teaching and learning, and for curriculum management, review, and reform.

ABSTRACT NUMBER: OCD 4
Medical students' knowledge and attitude toward plagiarism

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Background
Plagiarism can be considered as a serious problem in the distribution of research based knowledge. The objective of this study was to assess the knowledge and attitude toward plagiarism in medical students in Tehran.

Methods
A cross sectional study was conducted on 6th year medical students who were selected through systematic sampling method. The questionnaire contained 26 items that evaluated knowledge and attitudes of the respondents toward plagiarism. The reliability and validity of the questionnaire was assessed in the pilot phase, they were acceptable.

Results
The number of medical students who filled in the questionnaire was 142 (response rate: 81%). Just 10 percent of medical students had the correct knowledge about plagiarism. The range of correct understanding about various aspect of plagiarism was 16 (copy right rules and the use of quotation marks) to 73% (power point presentation).

Conclusion
It seems there is a gap of information due to plagiarism among medical students. It is necessary to consider this issue in the medical schools curriculum.

ABSTRACT NUMBER: OCD 5
Challenges of Medical Education in University of Science & Technology, Sana'a-Yemen

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Background
This is a descriptive paper, aimed at highlighting the challenges of medical education in University of Science and Technology (UST), Sana'a-Yemen, and sharing experiences in facing and solving such challenges. Apart from global and regional challenges facing medical education, there are some unique challenges from the personal experience and local point of view. These challenges will be discussed according to their levels of occurrence at either the level of the executive academic staff or students, although some challenges are shared by more than one group.

Context
UST's Medical School is a pioneer private medical school in Yemen with an integrated curriculum, started in 1995, while other Yemeni medical schools are public and discipline-based apart from Hadhramout University which like UST is following an integrated, problem based medical curriculum.

Statement of Problem
In the last three years, the number of students at UST has increased too rapidly, which provides a real challenge to UST on how to manage available resources effectively and produce competent and safe doctors. The challenges are not only restricted to executive staff but also their pressure have an impact on academic staff and students.

At the executive level, one of the challenges is insufficient training of faculty members to prepare them for their academic roles as teachers, managers, role models and researchers. Another executive headache is the accreditation process and the hard work needed to prove its requirements. Regarding curriculum implementation, both executive and academic staff face issues with newer educational approaches especially Problem-Based Learning "PBL" and Objective Structured Clinical Examination "OSCE" in the presence of a large number of students and limited physical and human resources (1:20 the ratio of staff to students). Another challenge faced by students and academic staff is the different levels of knowledge background of students, as they are very much spoon fed and taught in their different mother tongue's during their secondary school. Students demography is another challenge as 55% of students at UST medical school are not Yemeni. This leads to difficulties in communication with patients due to differing local language (accent).

Possible Solutions
Recommendations to overcome the above challenges include the provision of a well- planned faculty development programme in terms of regular training courses for staff and providing higher education opportunities for trainee faculty members. The setting up of specific committees for curriculum planning and development as well as for accreditation and quality assurance purposes must be put in place. In conclusion a collaborative effort by all from the executive, academic and student levels must be conducted to face such challenges and hopefully to improve medical education and produce satisfactory doctors for Yemen and the Middle East in the future.

ABSTRACT NUMBER: OCD 6
Patient safety in medical curriculum: why and how?

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We have entered an era in medicine where understanding the physiology and treatment of disease is not enough. Although medicine has long been viewed as a science, health care today requires a systems-oriented, multidisciplinary team-driven, patient-centred approach for optimal patient outcomes.

After more than a decade of release of the Institute of Medicine (IOM) report to err is Human: Building a Safer Health System, patient safety is not where it needs to be.

Quality and safety are much higher priorities for clinicians-in-training because they want their new profession to match their idealistic expectations. Enthusiasm to build patient safety curricula is essential and laudable. If we can just plant the patient safety bug in students, it may grow and flourish. The culture of safety will be part of their fiber; they will know how to learn from every close call and will look for every opportunity to continuously improve the health care system in the direction of reliable and safe health care.

The urgent need for patient safety education for healthcare students has been recognized by many accreditation bodies, but to date there has been sporadic attention to undergraduate/graduate medical programs. In the 2009 Tomorrows Doctors (GMC), patient safety is the first domain of standards for the delivery of teaching, learning and assessment in medical education.
Lucian Leape Institute Roundtable on reforming medical education (2010) concluded that substantive improvements in patient safety will be difficult to achieve without major medical education reform at the medical school and residency training program levels.

World health Organization(WHO) wants patient safety to be included from the start of medical education. Some medical schools started to adopt the WHO Patient Safety Curriculum Guide for Medical Schools.

Our presentation will discuss the importance of patient safety education; and review the current experiences and challenges.

ABSTRACT NUMBER: OCD 7
Teaching Patient Safety using the WHO Curriculum Guide for Medical Students

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Background
Patient safety and medical errors have drawn increasing attention from health care professionals in recent years. To build foundation knowledge and skills for medical students in patient safety and to assist medical schools to develop patient safety education, the WHO Patient Safety Curriculum for Medical Students was published in 2009. This guide covers 11 topics and encourages educators to tailor material according to their own unique needs, context and available resources.

The course description
In Korea University College of Medicine, total 16 hours is designated to teach medical ethics during 'Patient Doctor Society IV' for third year medical students. To teach the Patient Safety issues, three 2-hours sessions was incorporated into the pre-existing medical ethics course. Five topics were selected from the WHO curriculum guide; 1) what is patient safety, 2) what is human factors and why is it important to patient safety, 3) understanding systems and the impact of complexity on patient care, 4) understanding and learning from errors, 5) engaging with patients and carers. Various teaching methods were applied. To improve students' understanding topic 3 and 4, a video case ('Vincristine case') developed by WHO was used. Students were asked to fill up the short answer essay form for RCA. To practice how to disclose a medical error to patients and how to say 'sorry', video clips from a medical sitcom 'Scrubs' and role plays were used.

Conclusion
The WHO Patient Safety Curriculum for Medical Students was helpful to develop a new curriculum and teach students. Having additional hours to teach Patient Safety from medical curriculum which already over-saturated is almost impossible. The most practical way is to incorporate it into existing curricular, particularly in the doctor-patient stream.

ABSTRACT NUMBER: OCD 8
A commentary on the relevance of Global Independent Commission Report - Health professionals for a new century: transforming education to strengthen health systems in an interdependent world.

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Background
A century after the Flexner report and series of reforms, fresh health challenges loom, new infectious, environmental, and behavioral risks, at a time of rapid demographic and epidemiological transitions, threaten health security of all. Professional education has not kept pace with these challenges, largely because of fragmented, outdated, and static curricula that produce ill-equipped graduates.

A Global Independent Commission, consisting of 20 professional and academic leaders from diverse countries, came together to develop a shared vision and a common strategy for post secondary education in medicine, nursing, and public health that reaches beyond the confines of national borders and the silos of individual professions.

Across the world, 2420 medical schools, 467 schools or departments of public health, and an indeterminate number of postsecondary nursing educational institutions train about 1 million new doctors, nurses, midwives, and public health professionals every year, high-income countries are struggling to adapt to increasing costs and changing demographics of their populations, while in poorer nations it is obviously much worse. A large proportion of the 7 billion populations are trapped in health conditions that impacted the planet a century ago.

Results and Comments
The authors suggest a number of reforms, both instructional and institutional. The report highlights the fact that 20th

Century reforms shall not work for a world in 21st Century; there is necessity of involving students in the entire process of reforms, leadership at local, national and global levels backed by political leaders, expansion of funding in health professions education and socially accountable accreditation should be strengthened. The authors call for a global social movement of all stakeholders—educators, students and young health workers, professional bodies, agencies, donors, and foundations—that can propel action on this vision and these recommendations to promote a new century of transformative professional education. As a result there will be more equitable and better performing health systems than at present, with consequent benefits for patients and populations everywhere in our interdependent world.

The commentary on paper reflects the linkages of this report with the necessity of involving students and professional educators within the entire process, and its relevance to developing countries as India.

(1) Frenk Julio et al. Health professionals for a new century: transforming education to strengthen health systems in an Interdependent world. The Lancet 2010 Dec 4; 376: 1923-58.

ABSTRACT NUMBER: OCD 9
Analysis of medical professionalism core attributes

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Background
Evaluating the professional attributes of medical students is critical, because medical professionalism is an essential quality of a 'good doctor'. But, few studies have examined the tools for assessing such attributes. This study analyzed factors of medical professionalism in medical students to develop standards that can assess medical professional attributes.

Methods
Medical students (1,325) in Korean medical schools or colleges answered a self-assessment survey of medical professionalism elements from 2005 to 2009 that we developed. The survey consisted of core 31 attributes on a 5-point Likert scale. Factor analysis was performed using SPSS (version 12.0), extracting attributes by principal component analysis and the varimax method.

Results
Factor analysis revealed six factors structure with total variance of 59.66%. Factor 1 was termed 'empathy and accountability,' with 6 attributes, such as 'respect for others,' 'service-oriented,' 'medical ethics,' and 'sense of duty.' Factor 2 was 'self-development skills:' 'planning skills,' 'self-restraint,' 'integrity & diligence,' 'life-long learning skills,' 'self-confidence,' 'physical & mental health,' and 'physical appearance.' Factor 3 ('academic competence') consisted of 7 elements, such as 'understanding medical history & health society,' and 'understanding human social science.' Factor 4 ('high intelligence') comprised 'logical & critical thinking,' 'creative thinking skills,' 'problem-solving skills,' 'decision-making skills,' and 'foreign language skills' elements. 'Intimacy,' 'teamwork,' 'leadership,' and 'communication skills' constituted Factor 5 ('interpersonal skills'). Factor 6 was named 'attitude towards oneself and life,' with 3 elements; 'religious & dilettante life,' 'self-examination,' and 'open & positive mind.'

Conclusion
Good doctors need to have not only appropriate standards of medical knowledge but also skills to understand and communicate well with patients, as well as self-management skills, which should not be overlooked in the medical education curriculum. By optimizing the results of this study, a more refined assessment tool of professionalism can be exploited.

Clinical Education

ABSTRACT NUMBER: OCE 1
Improving clinical skills competence by reducing cognitive load

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Background
The unevenness of medical graduates' clinical skills results from "haphazard and random' teaching in traditional clinical skills programs. Students may graduate without having all clinical skills assessed or even taught. Large student numbers, unprotected teaching time, consultants' reluctance to teach outside their discipline, and poor (unstructured) educational design, are responsible. The latter especially, causes cognitive overload, inhibiting students' learning. The study sought to determine whether a structured clinical skills program (the Intervention) guarantees Year 1 medical students' competence through reducing cognitive load, and ameliorating the sampling error in OSCEs, by ensuring dual assessment of every clinical skill in the curriculum.

Methods
Cognitive load theory underpinned the design of a structured clinical skills program including detailed teaching and learning guides, systematic delivery, aligned curriculum and assessment, progressive assessment of all skills, and employing general practitioners to teach on campus. Main outcome measures were OSCEs and later retention test scores. Generalized linear modeling determined predictors of OSCE results, and ANOVA was used to compare OSCE results of the Intervention and Control students' (n=150 respectively).

Results
Intervention students spent less time studying than Control students but performed significantly better in the summative OSCE than Control students ($F(1, 303) = 3.92$, $p = .04$). The tutors' scores were predictive of the summative OSCE scores (=0.99, $p = .001$, 95% CI 0.97 – 1.1) during the Intervention and the following two years.

Conclusion
Structured learning materials, systematic delivery and feedback from dual assessment reduce cognitive load and enable more efficient and effective learning, enhancing clinical skills competence.

ABSTRACT NUMBER: OCE 2
Unifying teaching of diagnostic reasoning for medical students

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Background
Both the course of physical diagnosis and the clerkship training program in traditional curriculum for medical students deals mainly the skills of clinical data collection with emphasis on history taking, physical examination and chart recording. Although diagnostic reasoning is one of the most essential skills in clinical medicine, the skills of diagnostic reasoning are usually neglected. Understandably, to propose and formulate a tentative diagnosis as working diagnosis is the most difficult process in completing chart recording for our senior clerks. This fact demonstrates that a wide gap in the skills of diagnostic reasoning exists between novice and expert.

Method
On the occasion of our medical curriculum reform, we create innovative clinical diagnosis courses for helping our students to develop the metacognitive skills of making reasonable tentative diagnosis as working diagnosis throughout the learning and practices of clinical diagnosis not only in medical school but also after graduation. Our strategy is to unify the teaching of diagnostic reasoning in the courses of physical diagnosis, introduction to clinical medicine and in the clerkship program based on a stage theory of the development of medical expertise (Boshuizen & Schmidt, 2008). This theory deals with the acquisition and development of knowledge upon which a student or a physician operates when diagnosing the problem of his patient. The essence of this theory is the concept of knowledge encapsulation. We also adopt the strategy of appreciating practice knowledge (Higgs et al, 2004) for the design and the implementation of the courses in our new curriculum.

Conclusion
This innovative program will serve not only as a model for teaching students how to think, to learn and then to think again in the process of diagnostic reasoning but also as a model for clinical teachers thinking about how to teach, to facilitate and to give feedback during teaching clinical diagnosis

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ABSTRACT NUMBER: OCE 3
How should communication skills be adapted for Arab patients?

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Background
The current models of communication skill theory available have been developed predominantly in western, English-speaking settings. Such models are transferred to countries with a markedly different culture, and where the language of patient communication is not English. The processes involved in this shift between settings have not been well documented. This paper will review how cultural and linguistic differences can affect the transfer of communication skills to an Arab setting.

Description
Social and cultural factors affect how and when Arab patients seek help for mental health issues. Religious concepts often shape patients' health beliefs concerning mental illness, and can affect their willingness to admit to suicidal ideation. Societal custom can inhibit disclosure of alcohol and substance misuse.

There are gender differences in the emotional expression of pain and anxiety in Arab patients. Arab men find admitting weakness or inability very difficult. Additionally gender issues can impede physical examination of patients; for example, female patients may be reluctant to be examined by a male physician.

The family unit plays a major role in protecting what they see to be the interests of the patient. This affects in particular, breaking of bad news, when the family often feel that the patient should be shielded from a serious diagnosis.

Recommendations
Awareness of these issues enables one to adapt the consultation style appropriately. Key statements and phrases can be developed to facilitate communication with patients in these areas. Approaches that acknowledge and accommodate religious beliefs can be used. Gender specific approaches can be adopted to maintain the self-esteem of male patients or the cultural sensitivities of female patients. An emphasis on confidentiality and being non-judgmental helps patients to open up on socially sensitive issues like alcohol use. Ethical features of Western practice must be reconsidered in light of alternative value systems. Finally research into communication skills must be done within the Arab world to develop locally valid models of doctor-patient communication.

ABSTRACT NUMBER: OCE 4
Stressor Factors of clinical Environment from the view point of nursing students of Hazrat Zeinab Nursing & Midwifery College- Yasuj -2007

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Background
Stress at clinical environment will face students with challenges causing educational subsidence, influencing on personality, appearance & undesirable behaviors of their ineffective practice. the present study is done to determine the stressor factors & clinical environment from the view point of nursing students in order to remove those stresses of improve the quality of clinical education .

Methods
This is a descriptive sectional study carried out on 98 nursing students of 4th & 8th semester .sampling was done by convenient census method . Data collections were done using a questionnaire concerting of 29 questions & collected data were analyzed using SPSS software.

Results
The results showed that, most & the students were females (57.1%), single (79.6%) & hostlers (75.5%). the most stressor factor regarding the interpersonal relation for the students was making relation with instructor (2.28 ±1.07). Cleaning patients after defecation of caring poor condition patients with the mean of standard deviation of 2.62 ±1.15 &2.44±0.90 respectively were the most stressor factors regarding clinical works .Regarding the unpleasant feelings, the most frequencies were about the distress & poor condition patients (3.14±0.88) & insufficient treatment due to poverty (2.92±1.04) which were among the causes & stress in students. In case of contemptuous experiences, notifying them by teacher in front of personnel & physicians of the ward with mean & standard deviation of 3.05 ±0.96 was their most stressor factor.

Conclusion
The results showed that, ineffective relation between teacher & student, non – acquaintance of students with their responsibilities at clinical environment & non – availability of active assistance in the hospitals for poor people are among the most stressor factors for the students. Removing such factors can improve the learning power of the students.

ABSTRACT NUMBER: OCE 5
Comparing role play and group discussion educational methods on the knowledge and attitude of interns of Jahrom Medical School about how to breaking bad news in 2009

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Background
Appropriate breaking bad news skills are essential to the practice of high quality medicine. This study was performed in order to assess the educational benefits of breaking bad news skills training by role play method versus group discussion method.

Methods
This was an interventional double blind study and was performed in 2009-2010 in Jahrom University of Medical Sciences. 30 medical students were involved in this study. We had 15 medical students in each group. At first their knowledge and attitude about breaking bad news skills were evaluated with valid and reliable questionnaires. Then group one participated in group discussion workshop and the other participated in role play workshop. Their knowledge and attitude were re-evaluated after the course. The score of pre course and post course of both groups were compared. Results were analyzed using SPSS 11.5 by T test and paired T test.

Results
the mean score of knowledge and attitude of both groups before training were compared and the results showed that there was no significant difference between the both groups (p=0.618 and p=0.329). the mean score of knowledge and attitude of Group one and group two before and after training compared by paired t-test and the results showed that there was significant difference (p=0.000, p=0.001). the mean score of knowledge and attitude of Group one and group two after training compared by independed t-test and the results showed that there was significant difference (p=0.000, p=0.000) .

Conclusion
Our training intervention was effective in producing significant change in medical student's knowledge and attitude about breaking bad news skills. But Role play was more effective than group discussion.

ABSTRACT NUMBER: OCE 6
Initial experience of a rural health posting for medical students in Sri Lanka

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Background
Medical students in Sri Lanka have no structured exposure to rural health. The Faculty of Medicine, Ruhuna, introduced a four-week multidisciplinary residential posting for third and fourth year medical students at a rural District Hospital to expose the student to a range of health care problems seen in a multi-cultural rural setting and develop skills in managing illness in low resource settings while living and interacting with the local community.

Methods
A baseline questionnaire was given to all medical students to seek their views and attitudes before the clinical posting and another one to the first batch of students after completion of the posting on their experience.

Results
Of the 680 (males 305) students, who responded, 556 (81.8%) were in favour of a rural posting, 107 (15.7%) were not in favour and 17 did not respond. After graduation, 306 (45.1%) stated that they preferred an urban setting, 70 (10.3%) a rural setting and 268 (39.5%) were willing to work at any place that was offered.

After the posting, 58.9% of students found the posting useful and enjoyable. 48.4% of students felt that the exposure made them more likely to work in rural area, in 33.3% it had not made a difference and 16.1% made it less likely to take up a future rural appointment. 62.1 % felt that the posting should be continued without change, 25.8% felt that it should be modified and 11.3% felts that it should be abandoned.

The learning activities that they found most useful were at the district hospital (73%), elderly home (66%) and tea factory (50%). The students rated the exposure as expected or exceeded expectations in exposure to rural health problems (54%), delivery of preventive health and health promotion (48%), hospital administration (60%), interaction with hospital staff (65%) and opportunity to live and interact with rural people (68%).

Conclusions
This pioneering program provided a novel and varied learning experience for the majority of students and has potential to change perceptions that will allow them to work in a rural setting after graduation.

ABSTRACT NUMBER: OCE 7
Students' perception on the attainment of essential clinical competencies: experience in one medical school

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Background
The training for medical students is always under scrutiny either in the way it is delivered or assessed. One of the components during training that often under looked is clinical competency due to lack of standard ways to encompass formative and summative assessment on it. 1-3 Therefore, the study is to evaluate the students' perception on their level of clinical competencies at different clinical years

Methodology
A cross sectional study using questionnaires which were tested on a focus group consisting of fifteen clinicians from various fields and 50 IMU medical graduates. The areas tested were; communication skill, general practical &

procedural skill, specific procedural skill and data &imaging interpretation. The items are scored using the Likert scale from 0 to 4. Score 0 (the student is not confident to perform or has never seen/observed) to score 4 (very confident to perform or apply knowledge into practice without supervision). The results are analyzed using ANOVA or Fisher's exact test when necessary in the SPSS packaging version 13.

Results
The respondents were from 3 cohorts of students; semester 7, n=67(after 1 year of clinical training), semester 9, n=76 (after 2 years) and semester 10, n=78 (has completed 2.5 years). In general, the scores significantly increased longitudinally from semester 7 to 10 (p value- 0.000). Students in semester 7 seemed to be confident to perform clinical work under supervision as they have observed with mean score of 2.63 in communication, 2.78 & 2.99 in general practical and procedural skills and 2.63 in imaging interpretation. However the score in data interpretation (3.08) showed that they are confident to apply into practice after much supervision. The mean scores in all aspects for semester 9 and 10 students are all above 3. The highest mean score for both semesters are in data interpretation (3.46 & 3.6 respectively). The scores also increased from semester 9 to semester 10 in all components for clinical competencies except for imaging interpretation (3.17 – semester 9, 3.12-semester 10) but it is not significantly different.

Conclusion
Students in IMU perceived increasing level of confidence in various aspects of clinical competencies as they mature and exposed to more clinical opportunities. It is therefore vital that students are allowed to have ample chances to observe and assist in order to gain clinical experience over adequate length of time during their training.

ABSTRACT NUMBER: OCE 8
An evaluation on the computer-assisted self-directed learning in acute emergency medicine

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Background
MicroSim is a self-directed computer program that simulates medical emergencies and procedures. We first introduced the use of simulation sessions utilizing the Laerdal MicroSim® in the teaching of emergency medicine to final year medical students in 2010. We sought to evaluate the students' response to such introduction.

Methods
20 acute medical emergency cases were chosen to be completed by the students within the period of 18 weeks. Learning is self-directed at the students' convenience in the Clinical Skills Laboratory. The effectiveness and educational benefit as perceived by students were studied through perception questionnaires and comparisons were made with other existing teaching modalities.

Results
We received 113 student surveys for a response rate of 100%. 86.7% agreed it help in managing common key emergencies. These include various aspects in acute medicine such as diagnosis, management and therapeutics (60.2%), performing common clinical and life-saving procedures (67.3%) and requesting/interpreting appropriate investigations (54%).This is significantly higher compared with other curriculum delivery methods in teaching of emergency medicine management such as bedside teaching (42.5%,), lectures (38.1%) and symptoms-based tutorials (33.6%).MiroSim to a lesser extent also promote history taking and examination with appreciation of underlying pathophysiology (45.1%) and develop communication and team playing skills (35.4%). However, 46.9% did not perceive possibility of practicing evidence based medicine in this learning method.

Conclusion
Computer-assisted simulation can be an effective self-directed learning method. MiroSim gives the opportunity in learning acute emergency medicine at undergraduate level and is an effective method of teaching acute management compared to other modes of curriculum delivery.

ABSTRACT NUMBER: OCE 9
How do UAE medical students respond to unprofessionalism in the clinical setting?

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Background
Medical students are usually taught about the professional behaviour expected of doctors under the subject of medical ethics within the medical school. However when students enter the clinical setting, they sometimes report seeing some of their supervising physicians behave in ways that contradict the ideals they have learnt. We explored how Arab medical students dealt internally with these conflicting messages on how doctors should behave.

Methods
We conducted focus groups with 3 successive groups of final year medical students as they rotated through their final year family medicine rotation. Real life examples of unprofessional behaviour were shared with the students to initiate a discussion on similar examples witnessed by the students themselves. The focus group discussion was recorded and then transcribed. The transcription was analysed by family physicians to highlight recurring themes.

Results
Students had a variety of responses to deal with unprofessional behaviour that they witnessed. Most felt unconfident to directly challenge the physician involved, especially if he/she was a senior member of the medical team. Many felt that it was sufficient to show one's displeasure by not smiling or laughing at inappropriate jokes, or by leaving the room. Some resolved that they would behave differently once they became senior physicians. All felt that discussing these issues with their peers helped. Only one student felt that these experiences lead him to question the validity of the professional values they had been taught.

Conclusions
This study explored what UAE medical students do to bridge the gap between the official and hidden curricula. Although students seem to develop adequate coping mechanisms without any official mentor support, a minority may be adversely affected by witnessing unprofessionalism

in their clinical teachers. In light of this, educators may need to consider ways to help students and clinical faculty deal with this difference between the ideals taught and real life practice.

ABSTRACT NUMBER: OCE 10

Implicit knowledge of ethics and professionalism in medical students in their clinical years at the international medical university

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Introduction
Professional bodies and the academia are concerned about the lack of focus of medical schools not giving priority to learning the softer skills of communication, professionalism and medical ethics. The aim of this study is to derive information on this subject as perceived by final year medical students.

Method
A qualitative study was conducted incorporating three approaches;

i. Interviewing seven students in Semester 9 and three faculty members using questionnaires
ii. Focus Group Discussion
iii. Retrieving documents relating to ethics and professionalism in students' case write-up

To illustrate commonalities and saturation of data categorization in verbatim into three sections were done viz. Field notes, discourse analysis and observer's comments. Emerging themes were then collated through triangulation.

Results
There is a general feeling among final year medical students that they have adequate knowledge of P&E that they had garnered over the years through formal and non-formal instructions. Role modeling by senior faculty in the clinical years appears have had a strong impact in the clinical setting although there are weaknesses in distilling the soft skills in the formative pre-clinical years. This comment is validated by the faculty interviewed.

As to whether it should be taught formally, there is no uniformity but most feel a didactic approach would be ineffective. The clinical setting is the best place to learn especially through a tutor-tutee system and an apprenticeship model.

Three students admitted to have been unprofessional at some point in their clinical care and would not do so in future. A factor that appears a commonality is that they have observed their peers being unprofessional but have not done anything about such behavior. Implicit knowledge of P&E is high in this study.

Conclusion
IMU students have exhibited implicit knowledge of professionalism and ethics. Although they are ambiguous about having formal or informal teaching on professionalism and ethics they appreciate the importance of this affective domain. They would like faculty to emphasize further aspects of P&E as they go through task based learning and bed side teaching to prepare them for the real world. Many a time they under-estimate their foundation knowledge in P&E.

ABSTRACT NUMBER: OCE 11

A pilot study on learning medical ethics in undergraduate medical education

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Background
Most medical schools declare that medical ethics is part of their curriculum. However, the effectiveness of learning ethics remains ambiguous due to curriculum decisions on content, duration, teacher and outcomes. This study aims to identify medical students' awareness about ethical issues, the effect of the transnational collaboration, and the educational programme(s) on ethics.

Methods
Second year undergraduate medical students at the International Medical University (IMU) and the Tokyo Medical University (TMU) participated in this pilot study in May 2010. Twenty one students from IMU and 37 from TMU responded to a semi-structured self- administered questionnaire to determine what students know about medical ethics and exposure to ethics learning. The questionnaire contained six vignettes with ethical dilemma. Students in both universities then participated in a web forum (med-students,net) for an exchange of ideas. At the end of the session, students were administered the same post- questionnaire.

Results and discussion
Students' answers to the vignettes revealed that many students at both universities were not much aware of the various ethical issues involved in different cases. In all cases, some students answered that there was no ethical challenge. After the forum, students revealed improved awareness on the ethical issues discussed in the forum, such as patient safety and informed consent. There was an increased recognition of conflict of interest in both groups. (66.7% to 83.3% in IMU students and 25% to 57.1% in TMU students). Most students had some exposure to learning ethics in their first year courses but mostly by didactic lectures, which seem to have not been effective enough to enable them to understand what issues are implicit in different cases.

Conclusion
Students need more exposure to learning and discussing medical ethics. The transnational collaboration helps students enhance their awareness and improve their understanding of ethical issues on a broader perspective.

Problem-Based Learning (PBL)

ABSTRACT NUMBER: OPBL 1

Expectation of a tutor on the tutorial skills from medical students of different learning styles

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Background
Studies have been done on the factors affecting the effectiveness of case-based, small group discussion in a PBL curriculum. However, it is still not clear about the impact of medical students' learning styles on the effectiveness of learning and how to guide students of different learning styles in tutorial sessions. This study investigated the expectation of a tutor on the tutorial skills of medical students with different learning styles.

Methods
Fourteen scenarios were selected from the video tapes of tutorial sessions. Students from each of four Kolb's learning styles (LSI) were interviewed after watching each scenario. Based on the qualitative analysis of these interviews, a questionnaire was developed to evaluate medical students' expectation of a tutor on the tutorial skills. The Tutor Expectation Questionnaire (TEQ) contained 14 statements. A score of 1 to 5 was given to each statement according to the degree of tutor's intervention. All third year medical students from three medical schools adopting PBL were invited.

Results
The data of 126 medical students who filled both the Kolb's LSI and the TEQ were included in the final analysis. The Cronbach's alpha coefficient for TEQ was 0.849. Sex, age group and admission channels did not have effect on the scores. The scores for 9 statements showed significant difference between different schools. Students from school with the highest proportion of small-group, tutorial sessions had higher scores than students from the other two schools. Among the 126 students, the major learning style was Assimilating, followed by Diverging. Divergers and Convergers had significantly higher total scores than Assimilators.

Conclusions:
TEQ had good internal consistency and is not affected by gender, age and admission channel. Students from a near-full PBL curriculum and students with a dominant Divergent or Convergent learning style had higher expectation of a tutor on the tutorial skills.

ABSTRACT NUMBER: OPBL 2
Integrating e-PBL to promote individual reasoning ability

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Background
Sungkyunkwan University School of Medicine has implemented Problem-Based Learning (PBL) curriculum for over 10 years. e-PBL has been added in the renewed curriculum to supplement traditional PBL to reinforce the benefits of PBL. This paper presents an e-PBL model to support the development of individual reasoning ability by integrating e-PBL into traditional PBL (rather than replacing it).

Methods
An e-PBL was designed and developed with the goals of promoting individual reasoning and providing realistic and engaging cases. On top of PBL cases in the traditional format, students worked on e-PBL cases individually; their learning process was saved on the Web and was assessed by a tutor. Questionnaires were administered to a cohort of second-year students to investigate student perceptions of and satisfaction with e-PBL. Additionally, a focus group interview was performed for a more in-depth investigation of student experiences.

Results
Students perceived e-PBL more positively after they experienced it in terms of fostering problem solving skills ($t = 3.32$, $p < .01$) and being suited to their learning styles ($t = 2.65$, $p < .05$). After doing several e-PBL cases, over 80% of the students answered that were satisfied with the overall learning process and that the cases were engaging. The interview data revealed some student learning patterns in e-PBL different from those in the traditional format.

Conclusion
Medical educators should promote the development of student clinical reasoning toward independence in the clinical setting. The present study introduces a unique e-PBL model in which it is integrated into traditional PBL to foster student individual reasoning. By doing so, we can promote both collaborative and individual reasoning, which reinforces the cognitive benefits of PBL.

ABSTRACT NUMBER: OPBL 3
Preliminary steps to collect validated cases in a "PBL scenario bank"

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The School of Medicine at Atma Jaya Catholic University Indonesia has been implementing problem-based learning (PBL) as one of learning approaches in the competence-based curriculum since academic year 2006. Students' evaluations of PBL are conducted at the end of each block. One of the items in the evaluation sheet asks students to choose one of the best PBL scenarios in the current block. Students' preferences showed that the chosen scenario could be the ideal trigger for learning processes in PBL. Inspired by the results of this evaluation, we intended to collect good scenarios into a PBL scenario bank. The most important step is to decide which scenarios are good enough to be included in the bank. Dolmans et al. (1997) suggest seven principles in defining a good PBL scenario. Jacobs et al. (2003) create and validate a short questionnaire to measure complexity and structuredness of PBL scenarios. Based on these two studies we intended to start analyzing scenarios those were chosen by students. This study presented preliminary steps to validate PBL scenarios. Preferred scenarios occurring from students' evaluation sheet were collected and analyzed based on the seven principles of a good scenario (Dolmans, 1997). Three scenarios were chosen purposefully based on their subject coverage and level of study. These scenarios were then tried out to a group of PBL tutors and three groups of students. Both tutors and students were asked to assess the scenarios based on the short questionnaire developed by Jacobs et al. (2003). We found that there were coherence between students' preference of good scenarios and the seven principles from Dolmans. Results also showed that there were differences in complexity and structuredness of the three scenarios. These preliminary steps could benefit the PBL team to decide how good scenarios should be designed.

ABSTRACT NUMBER: OPBL 4

Problem based learning as a tool for developing 'Soft' skills: Perceptions of the new medical undergraduates

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Problem Based learning (PBL) is supported by many theories such as information–processing theory, cooperative learning theory, self-determination theory and control theory (Albanese 2000). Even though the studies have shown that PBL graduates showed gaps in their cognitive knowledge base there are many other benefits of PBLs such as developing communication skills, information gathering, cooperative learning and leadership which are mostly needed to work as a health professional(Albanese & Mitchell 1993, Berkson 1993 & Van den Bossche 2000)

The objective of this study is to evaluate the perceptions of the medical undergraduates who are newly exposed to problem based learning regarding the efficacy of the PBL process in achieving skills other than the cognitive knowledge base.

Each PBL group of ME1/10 cohort was asked to present their views after being exposed to the first PBL. A questionnaire was developed with 9 attributes based on the group views. After being exposed to 14 PBL sessions the group perception for each of attributes in the questionnaire was obtained using a scale of 1 to 10 (being the lowest score and 10 the highest score) and then the results were statistically analyzed.

Cooperative learning scored the highest rating of 8.39. Giving feedback to the facilitator scored the lowest rating of 4.93. All the other skills scored ratings above 6.

The study shows that medical undergraduates experience learning skills other than cognitive knowledge when exposed to PBLs even at an early stage of their undergraduate program. In an era where the efficacy of the PBL is challenged it should be retained in the medical curricula for the students to develop 'softer' skills from an early stage of their undergraduate years.

ABSTRACT NUMBER: OPBL 5

Students' perception of PBL in relation to their learning experiences

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Even though there are several variants in the implementation, Problem Based Learning (PBL) is essentially student centred learning that involves enquiry based discussion triggered by a problem, which is usually clinically oriented in a medical education setting.

In a hybrid PBL curriculum where PBL runs parallel with conventional didactic teaching, there is always a concern that such curricula arrangement may produce undesirable learning behaviour. Therefore, this paper evaluated the students' perception of PBL in relation to their acquisition of several important learning skills. PBL was introduced in a gradual manner into the first three years of a revised undergraduate medical curriculum at University of Malaya (UM) in 1999/2000.

Self administered questionnaires were distributed to students of Phases 1, 2 (first of the two preclinical years) and 3A (first of the three clinical years) after completing the final examination paper. The study compared the responses of nine cohorts of students, i.e., 2001 to 2009 on questions related to PBL. Students were asked to respond to each question based on their own experience and score a maximum value of 5 (strongly agreed) as opposed to a minimum value of 1 (strongly disagree). Data relating to PBL were analysed and the findings are discussed in this paper.

Across the board, progressively, students from all the phases noted that they perceived an improvement in their critical thinking, integration of knowledge, appreciation of understanding rather than merely memorising facts, communication skills and ability to counter propose ideas put forth by other students. The effects were more obvious with Phase 1 students compared with students from the other two phases. Written comments from the students also showed a shift from resistance and outright call for the abolishment of PBL tutorials, to positive call to increase PBL tutorials.

While these findings are very encouraging in showing that the students 'appreciate' the various benefits of PBL, these results need to be further validated by more objective assessments to demonstrate improvement.

ABSTRACT NUMBER: OPBL 6

Modified Team-Based Learning (TBL) supports Problem-Based Learning (PBL) as formative assessment to secure student's knowledge

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Background

PBL curriculum has been implemented in our faculty since 1999. Student-centered, active leaning, group function, thinking and reasoning skills are the main outcomes of this approach. However, one of the students' concern is confidence in acquiring content knowledge. TBL also engages students' participation in knowledge sharing and application through teamwork. The purposes of this study are to explore the effectiveness of TBL in enhancing understanding of content knowledge from PBL experiences and what key success factors are.

Methods

TBL activities were introduced into Block of Hematopoietic System and Biology of Neoplasia for the 3rd year medical students of year 2007-2010 as formative assessment. The essential steps include out-class preparation (with existing PBL), readiness assurance testing, and application-oriented teamwork discussion with the immediate feedback assessment technique. Tutors facilitates the session by fostering discussions on clinical application of basic sciences. The questionnaire with 5-scale Likert-type response and open-ended questions were used to examine students' opinion.

Results

Response rates ranged 70-90% with Cronbach coefficient of .888-.953. Overall satisfaction rate was 94%. Learning activities were helpful in self-assessment (93%). Most of the students agreed that TBL encouraged critical thinking and reasoning skills (92%), productive team-

working (91%), knowledge sharing (91%), and enjoyable learning atmosphere (90%). This approach also enhances application (89%), retention (89%), understanding (87%) and self-confidence (82%) in content knowledge from PBL activities. Pre-class preparation and group give-and-take interaction are main factors affecting the effectiveness of TBL. Students comments also indicated that they learned more and deeper with their teams.

Conclusions
Both TBL and PBL attempts to engage students to active participation in learning, critical thinking and team-building. TBL can be effectively used as formative assessment to support the educational goals of PBL. It also reinforced application of knowledge, understanding and self-confidence in subject contents from PBL experiences.

ABSTRACT NUMBER: OPBL 7
The PBL curriculum offers ample opportunities for learning / teaching of professionalism and ethics

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Curriculum delivery in general aims to achieve objectives which fall within the knowledge, skills and/ or attitudes domains of learning. Underpinning excellence in any professional training are the core values of professionalism and ethics. While professionalism falls mainly in the skills (or psychomotor) domain, ethics is aligned mainly to the attitude (or affective) domain of learning. It is generally accepted that both outcomes are challenging to teach / deliver in a medical curriculum. (1) Quite often, identifying where, when, and how these outcomes are delivered in a medical curriculum poses challenges, with a lot of students' learning (of same) occurring outside the written (formal) curriculum- the unwritten (or informal) curriculum. This paper defines the orphan nature of professionalism and ethics in the medical curriculum, highlighting the well-known difficulties in delivering these objectives, especially in the traditional medical curriculum. It goes further to identify the strengths of the PBL curriculum in delivering these outcomes, identifying specific opportunities with examples that are corroborated with the preliminary results of a students' survey.

Ref:
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Postgraduate & Faculty

ABSTRACT NUMBER: OPGF 1
Changes in Singapore medical students specialty interests in the clinical years

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Background
Specialty interests have been studied amongst different groups of medical students. A variety of factors are identified as influential including intellectual challenge, motivation, autonomy and reward. Experiences during the preclinical and clinical years, the presence of role-models and opportunities to interact with specialists also play a part in students' specialty preferences.

We studied specialty interest changes amongst third year medical students at the Yong Loo Lin School of Medicine, National University of Singapore. This was part of a study on perceptions and attitudes amongst the medical students.

Methods
The study was approved by the NHG(DSRB) Ethics Board. Third year medical students were invited to participate by self-completion of a questionnaire that identified specialty interest prior to medical school entry and at Year III. Statistical analysis was done using the McNemar Test and significance set at $p < 0.05$.

Results
Participation rate was 79.3% (382 out of 482 medical students). 55.8% were males. Specialty interest was 34.1% (130) before entering medical school and rose significantly to 41.9% (158) in Year III (p 0.009).

The top five early specialty interests were: Pediatrics, General Surgery, Cardiology, Orthopedics and Geriatrics. Interest in Pediatrics fell from 76.2% to 23.8% (p 0.0001) with female students showing significantly less interest (p 0.021). Interest in General Surgery rose from 31.9% to 68. % (p 0.002), particularly with male students (p 0.021). Three specialties showed very low interest before medical school but became significantly interesting for medical students in Year III: Emergency Medicine (p 0.015) and Internal medicine (p 0.046) especially amongst males, with Family Medicine (p 0.003) significantly amongst females.

In addition 3 students had >1 specialty interest before entering medical school: the number increased to 12 students at Year III (p 0.0098).

Conclusions
There are significant shifts in specialty interests as medical students enter clinical training. Often development of specialty interests are over-looked by the more demanding needs to provide clinical teaching. Yet students faced with an increasing array of specialization and sub-specialization opportunities experience significant indecisions. Guidance and support are needed to ensure appropriate specialisation choice. This has impact on the healthcare service development of the country.

ABSTRACT NUMBER: OPGF 2
Factors influencing the choice of dissertation topic in postgraduate trainees

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Introduction
Dissertation writing is an important step in the process of post graduate training. Although workshops regarding dissertation writing and research methodology are mandatory for the Trainees, most of them have not attended those workshops by the time of submission of research proposal. This study was conducted to know the factors which influence the choice of research topic among our trainees and also the role of their supervisors in terms of help and support for formulating a research proposal.

Material and Methods
This is a multi-centered cross sectional study conducted over a period of six months. A self designed Performa was used to interview the post graduates trainees and their responses were entered in the Performa. The Qualitative data analyses were done on per written student evaluation. Descriptive statistics were calculated by using frequencies, proportions and percentages. Differences in qualitative data between groups were analyzed with the Chi-square test. Stata version 10 was used for all statistical analysis. P-value less then 0.05 (two sided) was considered statistically significant.

Results
Total number of 436 trainees completed the Performa based interview. Research proposal was submitted within 6-12 months by 190 trainees. The topic was proposed by the supervisor in 160 cases and it is of personal interest in 158 cases. Most of the studies conducted were prospective (403). Only 76 trainees have a publication as first author. Topic was discussed with supervisor in 232 cases while statistician and supervisor both involved in 199 cases. Dissertation topic falls in category of lab test in 175 cases .Supervisor help in proposal writing was maximum in 137, moderate in 156 and minimum in 143 cases. When the topic was proposed by the supervisor, the help provided was maximum (Chi-square 1.040). The dissertation topic falls in category of lab tests (81) and departmental audit (47) mostly when it is proposed by the supervisor while personal interest in the topic also address these two categories (Chi-square59.1)

Conclusion
In our trainees, mostly the dissertation topic is proposed by their supervisor although personal interest in the topic also accounts a lot. Supervisors help in proposal writing is also maximum when the topic is of their own choice. There is a good trend of involving the statistician from the beginning and lab tests and departmental audits are the most favored fields for research.

ABSTRACT NUMBER: OPGF 3
A novel approach to the priorization of needs of faculty development programs

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Background
A random approach has been used for prioritization of needs for faculty development programs. Most often the prioritization is one-dimensional and is determined by academic importance as perceived by the organizers or the clients. We have experienced several problems with such approach- inability to arrive at consensus, failure to address individual needs, large absentees in the programs and wastage of institutional resources. We propose a new approach which envisages the detailed analysis of actual deficiency or the gap between perceived importance and actual performance of the faculty.

Methods
The procedure involves the following steps:

1. Listing of overall needs.
2. Creating a database on perceived importance and self rated performance connected with job performance by collecting faculty response on three point scale.
3. The perceived importance is rated as high, moderate or low.
4. The self rated performance is rated as poor, average or good.
5. A gap analysis (or deficiency analysis) is done by creating a 3x3 matrix.
6. The most deficient need is indicated by the score which is rated as 'high on importance' and 'poor on self rated performance'.
7. For better determination of gap, the 'poor and average performance' which are rated as 'high and moderate importance' are pooled- the figures serves as indicator of the actual need.
8. A priority ranking of needs is done on the basis of the scores.

Conclusion
The method is simple and effective way of determining the needs of faculty. Programs based on such method are likely to be more acceptable to the faculty as these are based on deficiency analysis by the faculty. The program also generates data which may be used to organize faculty developments programs to cater to the needs of specific groups.

ABSTRACT NUMBER: OPGF 4
Stress and stressors among postgraduate medical trainees: Initial findings

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Background
Postgraduate medical training has always been regarded as a highly stressful environment to students. This article described initial findings on prevalence and sources of stress among postgraduate students in a Malaysian medical school.

Methods
A cross-sectional study was conducted on postgraduate students in a Malaysian medical school. The 12 items General Health Questionnaire (GHQ-12) and Postgraduate Stressors Questionnaire (PSQ) were administered to measure stress level and sources of stress respectively during a workshop involving postgraduate students. Data was analyzed using SPSS version 12.

Results
Thirty three participants participated in this study. This study found that the prevalence of distressed postgraduate students was 36.4%. The top ten stressors were tests and examinations, large amount of content to be learnt, time pressure to meet deadlines, doing work beyond ability, work overload, unfair assessment by superior, fears of making mistakes that can lead to serious consequences, doing work that mentally straining, work demands affect personal and home life, and lack of time to review what have been learnt.

Conclusion
This study found that there was a high prevalence of distressed postgraduate medical trainees. It also found that the major stressors were related to academic and performance pressure.

Teaching & Learning

ABSTRACT NUMBER: OTL 1
Classroom good teaching practices in an online faculty development programme

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Background
Even with the revolution in information technology, online learning remains a relatively new concept in India. There have been no formal courses and no formal evaluations for this mode of learning. To ensure that quality is retained in online learning, principles that have been identified for traditional classroom teaching need to be incorporated into the online learning environment.

Methods
The Christian Medical College Ludhiana-Foundation for Advancement of International Medical Education and Research (CMCL-FAIMER) Regional Institute (CMCL-FRI) has been conducting faculty development programs in medical education since 2003 in India. It is using online faculty development programme to describe the use of classroom good teaching practices in an online learning programme. We evaluated our model in context of Chickering and Gamson's good teaching practices. The example of month's online activity on the topic "Helping low achievers" was evaluated.

Results
A total of 114 academic mails and 19 resources were exchanged on listserv. Eleven of 15 fellows and 5 out of 10 faculties participated in the online discussion. The "good teaching practices" visible included: asynchronous thread discussion, reflect and think before posting, involving silent members, peer coaching, faculty role as "guide on the side", learn together, resource sharing, acquisition of new skills and tangible end points. It also shows that learner needs support irrespective of type of learning.

Conclusion
Listserv promotes a community of learners through the online program which has components of good teaching practices.

ABSTRACT NUMBER: OTL 2
Use of video clips as teaching aids in tooth carving practical session

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Dental anatomy is the first subject in any dental or dental related course which introduces the students to individual tooth morphology of human dentition which is diphyodont and heterodont. Apparently it is the bridging course between basic medical science and clinical dentistry.

Tooth carving practical sessions usually in wax are indispensable for the course objectives of dental anatomy subject to initiate and develop the psychomotor skills of the students which are really essential in forthcoming clinical years since dentistry is stated as science of arts.

In this study, a total of 90 first year students of two consecutive batches, in Kulliyyah of Dentistry, International Islamic University Malaysia were selected and randomly divided into two groups. The study design was a randomized controlled single blind trial. The students had been taught on terminology, landmarks and morphology of permanent maxillary right central incisor. Each student was provided artificial teeth set so as to maximize the understanding of morphology of 11.

One group received only conventional laboratory instructions. The other received both conventional instructions and viewed a video clip on carving 11. Both groups were allowed two hours for wax carving of 11. Eventually the scores of the carved waxed teeth from both groups were compared and statistically analyzed by using chi square test. The better achievement was statistically found in the group which received demonstration by both conventional laboratory instructions and video clip display. Hence it can be concluded that visual perception plays on important role in nurturing the desired psychomotor skills .This was an extracurricular exercise before commencing the regular schedule of practical sessions.

ABSTRACT NUMBER: OTL 3
Learning styles of the medical students and teaching methods in Faculty of Medicine, Universiti Teknologi MARA

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Background
A learning style is how a student spontaneously and consistently contemplates, processes, and retains new information. There are a variety of learning styles. Generally speaking 65% of students are visual learners, 30% are auditory and 5% are kinesthetic learners. However students usually display a mixture of these learning styles.

Adapting teaching methods to students' learning styles helps students improve their learning. However learning styles can also be adjusted with the teaching styles or workplace styles.

The students enrolled in the Faculty of Medicine, UiTM are school leavers who taught using teacher-centered, lecture-based approaches.

This study purpose
To ascertain the preferred learning styles of the first year medical students and to make recommendations for teaching methods and approaches

Methods
A learning style questionnaire was distributed to 223 first year medical students during the introductory week. Completed questionnaires were analyzed using SPSS version17.0.

Results

Learning styles of first year medical students

	LOW PREFERENCE	MODERATE PREFERENCE	STRONG PREFERENCE	VERY STRONG PREFERENCE
Visual	42.6 %	49.8%	7.6%	0.0%
Auditory	22.2%	55.2%	20.2%	2.2%
Kinesthetic	41.3%	51.6%	6.7%	0.4%

Overall 77.6% students were found to have moderate to strong preference for auditory learning style, 57.8% for kinesthetic and 57.4% for visual learning style.

Conclusion

Contrary to common belief, majority of students had preference for auditory learning style. Based on these findings the following recommendations are made to improve the teaching methods:

1. Lectures, oral presentations or audio recordings should be used for teaching
2. Lecturers should make conscious efforts to speak clearly and loud enough to be heard easily by all students.
3. Language of instructions and its pronunciation should be clearly understood by students
4. Practical and hands on sessions should be included in teaching methods
5. Visual materials such as models should be used frequently in teaching sessions

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ABSTRACT NUMBER: OTL 4
The cognitive effect of blended educational program: A comparative study

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Introduction

Blended learning which is a mixture of various learning strategies and delivery methods to optimize the learning experience of the users.

Objectives

The objective of this study was to compare a designed blended educational method with classical face to face method in the cognitive effect of the program on the students' critical thinking.

Methods

A comparative study was conducted amongst 41 first year nursing students of Jahrom University of Medical Sciences who participated in the course psychiatry in 2008–2009. The students were randomly divided into two groups of conventional and blended educational methods. The Watson Glazer test was used for assessment of critical thinking.

Results

There was a significant increase in student's critical thinking skills in both groups after conducting of the course. Analysis of variance results showed that, there was a significant relationship between students' final score, teaching method and critical thinking in conclusion skill.
The mean of final scores of the students who participated in blended educational group was significantly more than that of those who participated in face to face teaching approach.

Conclusion

The use of blended educational method is recommended for teaching in Medical and Para-medical sciences.

ABSTRACT NUMBER: OTL 5
Teaching the cardiac exam to first year medical students

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Background

The researchers looked at three specific tools used to learn the cardiac exam and the student's ability to hear specific heart sounds. 3M Littmann 3200 Electronic Stethoscope help a student identify heart sounds better than using the regular stethoscope or learning the heart sounds on the Harvey Cardiovascular Manikin?

Methods

107 first year medical students participated in this study which included a didactic and demonstration of the physical examination of the heart. Following, each student was randomized into one of three groups to demonstrate their skill performing the cardiac exam. A preceptor evaluated and corrected the physical exam technique, and helped students appropriately recognize the heart sounds. After the initial exam, the normal patient left the room and a patient with either an abnormal or a normal heart sound entered for an exam. Each student completed a short survey identifying what they heard. This activity was repeated twice with different patients, one a normal and the other an abnormal heart sound. The preceptor collected the student surveys.

Results

Students using regular stethoscopes (N= 42), 10 students (25%) correctly identified hearing the abnormal heart sound; P> 0.05. The students taught initially on Harvey (N=36) had better success, 15 students (41%) correctly identified hearing the abnormal heart sound; P > 0.05. Of the students learning with the 3M Littmann 3200 Electronic Stethoscope (N=29), 18 (63%) were able to correctly identify hearing the abnormal heart sound; P> 0.05.

Conclusion

Learning the initial cardiac examination is a critical skill and can be difficult to ascertain whether the student is actually correctly hearing a patient's heart sounds. The newer electronic stethoscopes, with the ability to record and play small portions of the exams back to the student, may be helpful in teaching the students to correctly identify normal and abnormal heart sounds. As the numbers in this study were small, continual studies are needed to replicate these results. Additional studies might also determine whether student retention over time is affected using these learning tools.

We gratefully acknowledge the 3M Littmann Group for the use of the 3200 Electronic Stethoscopes in this study.

ABSTRACT NUMBER: OTL 6
Peer initiated, peer assisted learning at the Faculty of Medicine, Colombo, Sri Lanka.

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Introduction
Peer Assisted Learning (PAL) has been recognized to improve examination scores, lower student stress and enhance course satisfaction and aid professional and personal development. PAL initiated by students, is quite popular in the Colombo Medical Faculty. The objectives of the study were to determine, the degree of participation, methods used for PAL, perceived effectiveness and benefits, factors affecting participation and logistical issues in conducting PAL.

Methods
Data were collected using a structured pre-tested questionnaire designed after focus group discussions with representatives from the five batches of students. The tool used had 46 items (general information 7, participation 13, perceptions 9, teaching methods 4, characteristics of peer tutor 7, logistical issues 2, and suggestions for improvement 4).

Results
Among 478 students who participated in the study, 52.7% were males. 96.6% of students had participated in PAL. Participation was not dependent on academic competence. The majority was 2-hour, lecture-discussion type learning sessions conducted during study leave period. Tutors were either students from senior batch or same batch. Teaching ability over academic competence was considered when selecting peer tutors. White board was the commonest teaching aid used and mother tongue was used instead of English language. PAL was perceived more interactive than faculty led teaching sessions. Perceived advantages were exam-oriented revision, clarification of difficult areas, stimulation of further study, stress-free environment and psychological support. Perceived disadvantages were superficial learning, transmission of inaccurate information and reduction in self-study. The peer tutors (n=80) gained positively from the experience in terms of improved understanding and retention of knowledge, presentation skills, self-satisfaction, and peer recognition. Arranging a venue to conduct PAL was a frequently faced logistical issue. The majority wants PAL to continue and mother tongue is preferred.

Conclusions
The effects of peer learning are multiple and occur in a reciprocal manner and make PAL an attractive mode of education.

ABSTRACT NUMBER: OTL 7
An approach in integrated teaching of malnutrition

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Background
The Medical Council of India and the regional university recommends integrated teaching for medical undergraduates. However, in most of the medical colleges, the subjects are taught in isolation with little or no attempt to integrate the basic sciences with the clinical discipline.

Setting
When integrated teaching was first introduced for third year medical undergraduates in our recently initiated medical school, students found it monotonous as they were not involved. Hence we organized a participatory skill-based integrated session on the topic of malnutrition, a major child health problem in India, and assess its effect.

Methods
The faculties of Department of Community Medicine in collaboration with departments of physiology, biochemistry and pediatrics worked out a time table and faculty guides for six a hours (two hours per day) integrated session on malnutrition. All four departments delivered the sessions and emphasized skill-building of students on anthropometric measurements, plotting and interpretation of weight on WHO growth chart and dietary counseling of mothers using Integrated Management of Neonatal and Childhood Illnesses guidelines. Retro-pre feedback was obtained from the students. Paired-t test was applied to compare mean post and pre score values using SPSS.

Results
Students appreciated the participatory approach of integrated teaching and it also gave them the opportunity to learn the right methods of anthropometric measurements and plotting growth charts which can be applied during their community posting ($p<0.001$).

Conclusion
The integrated session with emphasis on skill-based participatory approach on a topic of public health importance with involvement of faculty from other para-clinical and clinical departments was well received by students.

ABSTRACT NUMBER: OTL 8
The impact of e-learning in medical education in Korea

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Background
There has been an increasing need for e-learning in medical education and it has brought about a need for collaboration among medical schools to implement e-learning. In Korea, this effort was initiated by the Consortium for e-Learning in Medical Education, which was formed in 2007 with the goal of collaboration for the development of e-learning contents and sharing them among member schools, which comprise 34 Korean medical schools. The consortium has built an online repository of learning resources (eng.mededu.or.kr), which offers over 1,000 learning resources (virtual patient cases, clinical videos and images, quizzes, etc.) developed by medical faculty members.

Methods
An online survey of conducted of student users to investigate their opinions on this e-learning portal (i.e., e-MedEdu). This questionnaire comprised 14 questions about the participants' demographics, 14 questions about their usage patterns in e-MedEdu, and 17 Likert-scale questions on their perceptions of and satisfaction with e-MedEdu. 153 student users completed the survey. Descriptive statistics were performed to analyze the data.

Results
Of those surveyed, 97% of the participants found that e-MedEdu was useful for their learning. Especially, 35% responded that clinical skills videos were most useful, followed by virtual patient cases (29%), and quizzes (8%). Additionally, 90% of the participants responded that they were satisfied with e-MedEdu.
Conclusions: The consortium's e-learning efforts are making an impact on student learning by expanding student clinical experiences with virtual patient cases and by helping medical schools better prepared for clinical education for OSCE and CPX. This is arguably the first consortium for e-learning among the Asian medical schools and the efforts are under way to share the contents with other Asian countries. The English version of its website and the online materials translated into English are demonstrated in this presentation.

ABSTRACT NUMBER: OTL 9
Teaching public health: seminar or lecture?

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Background
Several pedagogical methods can be used to impart medical education but the challenge is to make students appreciate critical thinking and apply their knowledge. Due to the managerial constraints and academic interest, we developed a strategy to train students in public health the academic purpose was to put to avoid passive learning, increase student involvement, encourage interaction and make learning more engaging and effective.

Methods
Instead of delivering lectures, we encouraged the students to prepare seminars on topics of public health importance based on the guidelines provided by the lecturers and present them to their peers. The lecturers were present only to guide and supervise the students. Using a questionnaire, student's perception on the lecture and seminar mode of teaching was evaluated.

Results
Lecture: Organizational content and the learning outcomes were better (p=0.00). Study material were easily available (p=0.003), useful (p=0.01), had better content (p=0.00) and quality (p=0.00). The students claimed that there was more teacher guidance (p=0.00), care for student learning (p=0.00) and the interest and understanding in the subject taught increased (p=0.00). Flow of the subject matter was also better (p=0.00).

Seminar: More students assumed that their knowledge was adequate prior to the seminars (p=0.00). They found the seminars to be difficult. Motivation to read about the topic was however increased. Seminars improved the students presentation skills (p=0.001), communication skills (p=0.00) and provoked interest in the topics taught (p=0.04). Seminars also played a bigger role in student interaction, problem solving and teamwork. More students agreed that there was more student involvement and that seminar provoked their interest.

Conclusion
From the findings of this study we found that a combination of both the methods is ideal as both have strengths as well as weaknesses

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ABSTRACT NUMBER: OTL 10
Stress level among final year USM Bachelor of Pharmacy students during drug information services clerkship

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Background
Stress is common among university students, but this condition may sometimes be beyond expectation and may interfere with academic performance, emotional or even health outcome.

The objectives of this study were to measure and to examine the difference between perceived stress level before (pre) and after (post) clerkship; and also to explore the possible stress triggers, strategy to cope with stress as well as the suggestions to alleviate stress.

Methods
The sample of this study were 67 students, who were divided into 7 groups and assigned to Drug Information Unit Clerkship in Hospital Universiti Sains Malaysia for 7 consecutive weeks. They were given a set of questionnaire at the first and the last day of clerkship. The stress level was measured using 14-item Perceived Stress Scale (PSS-14). The subjects were given 10 minutes to fill in the questionnaire. The data were analyzed by SPSS 18.0 using descriptive analysis in determining the frequency of studied data and also to compare the difference of mean between total and each item of PSS, for pre-clerkship and post-clerkship scores.

Results
The total PSS score post clerkship was significantly higher ($p < 0.006$); with mean of 29.79 (SD 8.67) as compared to pre clerkship score with mean value of 26.67 (SD 6.23). Most common stress trigger was clerkship assignment and assessment, which reported by 85.7% subjects (n=48). Spending time with family and friends was agreed by 92.9% of samples (n=52) as the most effective activity to cope with stress. The most agreed suggestions to alleviate stress was to improve and expand wireless internet in pharmacy and library building (n=54, 96.4%).

Conclusion
Stress level significantly increased by 11.70% after the completion of clerkship. Suggestions from students to alleviate stress need to be reviewed and considered.

ABSTRACT NUMBER: OTL 11
How to structure small groups for better performance

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Kolb's learning styles inventory was chosen to determine student performance in team settings in our biochemistry curriculum. Students were randomly grouped in the first half of the course, and then regrouped based on their learning style in the second half. The majority of our DO students belonged to the converging learning style, with the assimilating style not far behind. The accommodating and diverging styles were relatively rare.

We compared grade changes in collaborative work (concept mapping), individual assignments derived from collaborative work (case quizzes), and tests not related to collaborative work (individual quizzes). Approximately, 41% of the students had better grades in all three grade categories, while ~85% of them improved at least in two categories. Although similar number of students achieved better grades in concept maps and case quizzes (72-73%), only ~54% of the total number of students showed improvement in both, indicating no strong correlation between the two grades. In fact, most students (~79%) improved their grades of the case-independent individual quiz, suggesting that the better overall grades were due to improved adjustment to the course and/or better study habits in the second block of the course. The improvement in the Block Exam results appeared to confirm this conclusion.

In teams formed by students of similar learning styles (converging or assimilating), the collaborative concept map scores increased considerably; whereas their individual test scores did not seem to be effected significantly. The individual scores of students belonging to diverse groups seemed to increase in the second part of the course. Again, this finding might be due to the increased effort and/or familiarity with the assessment methods. Diverse groups seemed to work the least well on assignment where collaboration was required.

In conclusion, groups composed of students of similar learning styles appeared to perform better on all assignments.

ABSTRACT NUMBER: OTL12

Clinical reasoning maps©: student perceptions of a novel tool to learn complex clinical cases

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Introduction
Clinical Reasoning Map (CRM) is a novel tool being developed to facilitate understanding of complex clinical cases. Other cohorts of students perceived CRP to be superior to L when trying to understand pathophysiology and remember facts.

Methods
Objective: to study student perceptions of CRMs to understand paper-based complex clinical case scenarios. Sample: 137 final-year medical students from the Faculty of Medicine, Colombo. Design: The study had three sequential rounds. First round had a case-study (CS) and random distribution of supplementary information (SI) which was a list of differential diagnoses, a description of differential diagnoses, or a CRM. After the CS a questionnaire tested recall and understanding (see accompanying abstract). The SI was crossed-over for round 2 and 3. On completion, we used a pre-tested questionnaire to assess student perceptions of CRM.

Results
136 (99%) completed the study. 113 (83%) and 96 (70.1%) agreed that CRMs were the most useful method to understand the clinical cases and remember facts, respectively. Of the former 113, 85 (62.5%) found CRM to be most useful to recall medical facts, OR=3.312 (95% CI=1.316-8.334). 41 (30.1%) frequently used a similar method when tackling complex clinical problem. 127 (93.4%) thought CRM was useful for learning and 118 (86.8%) were interested to learn the skill of drawing CRMs, with close association between the two (Spearman's correlation-coefficient=0.54 ($p<0.0001$).

Conclusions
The study confirms favourable student perceptions of CRM in another study of 4th Year students, which found 135 (88.8%) agreeing that CRM was the most useful method to understand the clinical cases. It is encouraging to note their enthusiasm to learn the method of drawing CRM, because they perceived it to be useful in their learning. Further studies are being carried out on optimizing teaching of CRM to students.

ABSTRACT NUMBER: OTL 13

Structured grouping of students to enhance learning during small group interactions

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Background
Small group discussions now occupy an important role in medical curricula in the all-round education of students1. In randomly selected groups, there is often a lack of complete participation by all members of the group. It is common to find that some students do not take part in discussions or that one student dominates the discussion in these groups. We attempted to resolve these problems by organizing the structure of the small groups based on performance.

Methods
Using student marks on the First Internal Assessment as the criterion for grouping, 150 students were divided into three groups consisting of low (students with scores of ≤45%), medium (students with scores of > 45% to 60%) and high (students with scores of > 60%) achievers, respectively. Each group was subdivided equally into a control and a study group. Smaller groups of six or seven students each were formed in both the study and control groups. The study groups were selected in a stratified manner, so that each small group of six or seven students included two or three low, two medium and two high achievers. Control group members were selected at random. All the groups engaged in a weekly discussion on topics specified earlier. Renal physiology was one such topic selected after the traditional didactic lecture. An instructor was assigned to each group in a passive role. The instructor's task was to watch the group at work and to maintain an interaction map. After discussions, students from each group presented their topic for whole batch and received feedback from peers and from faculty.

Results
Renal physiology mean pre- and post-test scores of study group students were 8.80 ± 3.02 and 9.96 ± 3.41, respectively, indicating an improvement of 13.2%, which was statistically significant ($t = 2.571$; $P = 0.013$). Mean pre- and post-test scores of control group students were 8.88 ± 3.41 and 9.29 ± 3.81, respectively, indicating an improvement of 4.6%, which was not statistically significant ($t = 0.802$; $P = 0.426$). Evaluation of the interaction maps showed that students in the study groups participated more

actively. Mood in the study groups was generally more upbeat, enthusiastic and positive and featured greater levels of cooperation and interest in learning. However, not all students were seen to actively participate in the control groups and the balance of contribution was not equal in many control groups. The body language of control group students ranged from demonstrating disinterest and passivity to indicating interest. Students' evaluations of the sessions as assessed by questionnaire showed that the study group students were significantly (P = 0.011) more likely to participate actively during discussions. In addition, study group students strongly agreed that the level of discussion was high in their group (P = 0.017).

Discussion
Active participation is a key element that contributes to the success of small group interactions1. Forming an organised group structure by including low, medium and high achievers in each of the small groups was shown to increase interaction and promote more active student participation and should therefore prove more effective in enhancing learning and improving performance.

ABSTRACT NUMBER: OTL 14
Miniworkshops – a new instructional strategy consisting of brief interactive educational sessions with hands-on exercises and feedback

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Background
Workshops have become increasingly popular as an instructional method especially for faculty development and procedures training. It is not clear whether a brief version of the workshop format could be used as the main instructional strategy in medical education replacing lectures and problem-based learning (PBL).

Methods
A new miniworkshop format was developed; as a brief, focused, skill-oriented, interactive educational session involving: (1) initial problem-based exercise, (2) step-by-step demonstration by the tutor, (3) experiential learning with hands-on exercises and (4) in-session feedback. Interactive lectures and small-group discussions by themselves did not qualify as hands-on experiential learning. All miniworkshops were completed in a single session of 1 to 2 hours. Four miniworkshops were conducted for medical school faculty as well as medical students on medical, research and information technology skills. Participant feedback was elicited for program evaluation on a voluntary basis using limited-response (on a scale of 1: 'No' to 5: 'Yes') as well as an open question for comments. Learning outcomes were not assessed.

Results
The 4 miniworkshops were attended by a total of 63 participants (mean 15.7). The mean score for the program evaluation item 'The goals of the workshop were clearly specified' was 4.7 (range 4.4 to 5.0) and for 'I achieved the specified goals' 4.3 (range 3.9 to 4.9).

Conclusions
In line with competency based curricula, the new miniworkshop format may be a useful instructional strategy for medical education. Further research is needed to assess learning outcomes in controlled trials with lectures and PBL.

ABSTRACT NUMBER: OTL 15
Can a movie revolutionize the attitudes of medical students, who are just starting their career?

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Background
Medical students' attitudes towards patients and the health team have given rise to many ethical and practical problems in ward settings. Thus, aims of this study were to evaluate the attitudes of new medical entrants (who do not have clinical exposure), to cinema-based learning, and to evaluate whether a movie can influence their behaviour and attitudes.

Methods
Two hundred entrants of the A/L 2009 year at the Faculty of Medicine,Colombo, Sri Lanka were shown the movie Patch Adams and asked to document what they learned. The responses were qualitatively analysed.

Results
Response rate was 74% (n=148). Students observed that the director was rude (39.2%), insensitive (20.9%), non-compassionate (12.8%), did not understand the mentality of patients (33.8%), was traditional (22.3%) non-practical (10.8%), not disciplined (10.1%) as a professional. They considered Patch Adams as compassionate (44.6%), sensitive (29.8%), caring (10.8%), friendly (10.8%) innovative (11.5%) a person who understands the mentality of the patients (19.6%) and is practical (9.5%).

51% stated they should be compassionate as medical students and doctors. They believed patients' mental health is important (23%), and they as doctors should understand patients (31.8%); make them happy (16.2%); be friendly (14.2%); be human (8.8%); and practical (6.1%). Some mentioned they learned how to be a good doctor (14.9%) and not be materialistic (6.8%).

Conclusions
Students have realized what patients anticipate from a doctor, how they should behave with the patients and the importance of the mental health of patients. A movie addressing the desirable aspects of a medical professional can make changes in medical students' perspective toward their future career as a doctor.

ABSTRACT NUMBER: OTL 16
Learning style preference: A comparison between Indian and Malaysian students

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Background
Students have different levels of motivation, attitude about teaching- learning and responses to specific environments. The more the instructors understand the differences, better the chance they have of meeting the diverse learning needs of all their students. This study aims at analyzing the learning preferences among the Indian and Malaysian medical students, and also evaluating their learning styles with respect to gender.

Methods
A Prospective study was conducted among the 2nd year medical students from an Indian medical school (group1, N-91) and a Malaysian medical school (group2, N-100). Informed consent was taken from all the students included in the study. The students were instructed to fill "the index of learning style questionnaire" by Felder and Solomon. The questionnaire assesses preferences on four dimensions: processing (active/reflective), perception (sensing/intuitive), input (visual/verbal) and understanding (sequential/global). The data obtained was analyzed using descriptive statistics.

Results
Among the 91 students in group 1, 56 were females and 35 males, and among the 100 students in group 2, 61 were females and 39 males. In both groups we found that balanced learners were common compared to students with preferred learning style in all dimensions and in both sexes. Females were more balanced in their learning styles compared to males. Group 1 had more balanced learners in processing (71%) and group 2 in the other 3 dimensions. Among students who showed preference for a particular learning style, visual learners were common in both groups and sexes. In both the groups females were active, sensing, visual and sequential learners. While males differed in the dimension of processing. In this, Group 1 had 17% reflective learners, and group 2 had 31% active learners.

Conclusion
We conclude that there is no significant difference in the learning style preferences between medical students in India and Malaysia and also between males and females of both countries.

ABSTRACT NUMBER: OTL 17

The effectiveness of Structured Clinical Instruction Module (SCIM) and video training in accelerating students` self confidence in neonatal resuscitation

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Background
Adequate care of the newborn in the delivery room is of fundamental importance to prevent asphyxia injuries, which lead to death. One of the eight strategic interventions for preventing is resuscitation, which has a leading role to play. Neonatal resuscitation is a standard of practice for all neonatal nurse practitioners, midwives and physicians who work in maternity and neonatal settings. The skill taught by the NRP often forms the basis of acute care training. As studies have called into question the provider's ability to perform neonatal resuscitation and the NRP is taught through different method this study has been established to compare the effects of SCIM and video training on midwifery, neonatal nurse and anesthesia students' self-confidence in neonatal resuscitation.

Methods
In this study 48 eligible midwifery, neonatal nurse and anesthesia students were enrolled and randomized into three groups. One group received SCIM, the other one video training and the last one no training (control). The workshop lasted 6 hours and was about neonatal resuscitation based on NRP. The self confidence of participants in each group was assessed using validated self evaluated questionnaire before and after training.

Results
Self confidence between the three groups before attending the workshop didn't have any difference (p=./79) but after attending the workshop there was a significant difference between SCIM) 11/2 ± 4/1 pre-test , 20/6 ± 2/36 post-tests) and video) 10/7 ± 5 pre-test , 17 ± 2/9 post-tests) (p<0/001) and also between the two intervention group and control group(p<0/001, p<0/001 respectively.). The confidence in each intervention group before and after attending the workshop has been increased significantly (p<0/001 in each group).

Conclusion
The changes in self confidence before and after SCIM indicate the effectiveness of this way of training in accelerating self confidence in neonatal resuscitation.

ABSTRACT NUMBER: OTL 18

Final year undergraduate pharmacy students' expectation and satisfaction in outpatient / counselling clerkship

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Background
Outpatient/Counselling Clerkship for pharmacy students is an experiential learning in which the students will be able to attach and prepare themselves to be future pharmacist.

The objectives were to determine students' expectation and satisfaction in issues related to OPD/Counselling Clerkship; and to examine the correlation between satisfaction and perceived stress level in the clerkship.

Methods
The samples of this study were 67 students, were divided into 7 groups and assigned to Outpatient/Counselling Clerkship in Hopsital Universiti Sains Malaysia for 7 consecutive weeks. They were given a set of questionnaire at the first day to determine students' expectation, and at the last day of clerkship to determine satisfaction level in issues regarding the clerkship. Stress level was measured using 14-item Perceived Stress Scale (PSS-14). Expectation level examined through 7 closed-ended questions and 14 questions meant to measure satisfaction. The data were analyzed by SPSS 18.0 using descriptive analysis in measuring the frequency of studied data. Correlation and regression test were used to examine the relationship between satisfaction and stress level.

Results
The mean of PSS score post clerkship was 29.79 (SD 8.67), and mean satisfaction score was 37.49 (SD 5.47). There was a significant negative correlation between PSS and satisfaction level (p< 0.05; Spearman rank correlation test = -0.265). Student's highest expectation was the clerkship will give them the description of their working life (n=56, 88.9%). Satisfaction of the clerkship was most on the clarity of clerkship documentation or manual with mean value 2.98 (SD 0.523).

Conclusion
The higher the satisfaction level, the lower perceived stress level detected, significantly. The OPD/Counselling Clerkship was expected to give experience and pictures of students' future working life as pharmacists.

ABSTRACT NUMBER: OTL 19
Introducing a new lesson on configuration of teeth identification and communication

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Background
A lesson on tooth notification, a basic framework to facilitate dental practice in clinical years and later on as lifelong practice, is taught in preclinical years of undergraduate dental curriculum. A tooth notification provides identification of teeth in the form of dental charting and helps in communication of dental information as referral notes and claiming treatment charges.

Aim
To present a novel method of tooth notation, designed to be implemented for educational purpose in dental schools to aid dental & hygienist students, dentists, specialists and even lawyers & insurance companies to get acquainted for identification of teeth and the challenges associated with mistakes in communication.

Methods
This lesson on new tooth notification is constructed by the use of first letter of each tooth class, (I-incisor, C-canine, P-premolar, and M-molar) and tooth types (1, 2, 3) written as superscript and subscript to identify and communicate the teeth of both jaws.

Results & Conclusion
This novel system is a promising and potential educational lesson that upon implementation, allows the users to communicate error free dental information as a universal standard way without any confusion within or outside the dental community.

ABSTRACT NUMBER: OTL 20
Medical Education and Millennium Development Goals

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Abstract
A decade ago, in September 2000, the largest gathering of world leaders in history gathered at the United Nations Millennium Summit in New York and signed the Millennium Declaration. They thereby reaffirmed the commitment of their nations and the international community to the achievement of the Millennium Development Goals (MDGs), a set of measurable objectives for development and poverty eradication.

While better health is central to the achievement of all Millennium Development Goals (MDGs), 3 out of 8 goals, 8 of the 18 targets and 18 of the 48 indicators are directly related to health.

Key health-related Millennium Development Goals include Goal 4, reducing child mortality; Goal 5, improving maternal health; and Goal 6, combating HIV/AIDS, malaria and other diseases. However it is generally acknowledged that health underpins all of the MDGs and is vital to each of their fulfillment. Medical students have an important role to be played now and in the future. They should be aware of the Millennium Goals and the role that they can play to achieve these goals specially health ones.

The MDGs are congruent with certain fundamental values of the medical profession including equality, solidarity, tolerance, freedom, and collective responsibility. This presentation is about the role of medical education to achieve the MDGs and integration of them into the medical curriculum and extracurricular activities.

Others

ABSTRACT NUMBER: OO 1
The four choices model for responding to religious health beliefs in a Muslim setting

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Background
Muslim patients often attribute their symptoms to a range of religious and cultural health beliefs, which may clash with the biomedical explanation that the physician offers. However factors which may further complicate this situation are when the doctor shares some of the religious health beliefs of the patient. An example of this can occur when a Muslim patient consults with a religious Muslim physician, and the patient refers to religious concepts which consist of mainstream Islamic belief. This internal dilemma experienced by some physicians has not been explored in the medical literature.

Method
Using an example of a Muslim patient's health belief (attribution of a headache to evil spirit or 'jinn' possession), I will explore the four different positions that a physician can take when approaching this situation was explored. These included open disagreement, secret disagreement, secret agreement and open agreement. Each position that the doctor could take was considered in the context of current internationally accepted medical ethical frameworks.

Conclusion
It is important for doctors who hold religious beliefs that may challenge current medical concepts to feel comfortable discussing these issues openly. Such an analysis avoids unresolved internal conflict and helps to delineate the extent to which it is acceptable for a physician's personal beliefs to enter into the doctor-patient encounter. This presentation will highlight those controversial areas within this conceptual domain that need further discussion and clarification.

ABSTRACT NUMBER: OO 2
Challenges facing Malaysian students entering the MB ChB programme: A qualitative study

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Background
To explore the experiences of Malaysian students with the aim of identifying the challenges and barriers that has

arisen as a result of the transition the MB ChB programme. The information obtained from this study will be used in the development of appropriate support interventions to ensure that institutions of higher education meet international students' needs in terms of academic and social adjustment.

Method
Qualitative approach in the form of focus group discussions conducted with thirteen medical students at a teaching hospital in the North West. Focus groups were digitally recorded and transcribed verbatim. Data collected was analysed in a modified form of grounded theory.

Results
Malaysian students discussed their experiences regarding the difficulties and barriers in two focus group discussions. Analysis of the focus groups' transcripts revealed a number of key themes. Among the major themes that have been identified are: language barriers, social integration, communication skills, academic adjustment and the perception of passivity and reticent.

Conclusion
This study has revealed the challenges and barriers surrounding the transition to the MB ChB programme from the Malaysian students' perspective. Students experienced difficulty in both academic and social adjustment. An introductory programme will be developed that will specifically target issues that have been identified through this study to further improve the welfare of international students.

ABSTRACT NUMBER: OO 3
Status quo of laws and regulations on pharmacists for interprofessional collaboration in Japan

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Background
In Japan Ministry of Education has implemented the new six-year pharmacist education curriculum to achieve higher clinical competencies since 2006. In 2008, Japanese Society of Hospital Pharmacists delivered the vision of "New development of expanded pharmacist's practices". However, the extent of practices by pharmaceutical students or pharmacists becomes chaotic because some clinical practices are not allowed within the existing medical law. The objective of this study is to clarify legal situation around pharmacists' practices.

Methods
We conducted comprehensive search in domestic legal database for any case of administrative penalty on pharmacists' medical act from 1999 to 2007 and medico-legally discussed current legal status of pharmacists, legal system to control health professionals, and pharmacists' practices with 15 staffs in Faculty of Law twice to ensure objective and accurate conclusions.

Results
The database did not show any administrative penalty for medical practice by pharmacists. Existing laws specify health professionals who can help medical doctors as nurses, physical therapists, laboratory medical technicians, etc but excludes pharmacists and radiological technicians. Meanwhile the only medical practice allowed within medical law for pharmacists is "dispensing drugs" though current pharmacists' practice includes medication teaching for patients, clinical trial coordinator, etc,

Conclusion
Although seamless interprofessional collaboration is recommended, existing laws surrounding pharmacists do not comply with the current situation. Amendment of medical law is necessary to enable pharmaceutical students to apply acquired competencies to future practices. International investigations into legal structure for the practices by pharmacists and pharmaceutical students will help revision of laws.

ABSTRACT NUMBER: OO 4
Unhappy doctors: A challenge to health care reform in Sudan

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Background
Several reports from around the world have described declining morale among doctors, but little is known about the reasons. Sudan is recently carrying out health care reform, and job satisfaction among doctors constitutes a real challenge in the face of this revolution. Prior studies have shown that level of job satisfaction of a doctor affects his/her behaviour with co-workers, administration and particularly the patients, and therefore it is unlikely that optimal medical care can be delivered by unhappy or maladapted doctors

Objective
To identify sources of job dissatisfaction among house officers working at hospitals in Khartoum state by assessing their perception of quality of hospital training, working conditions, and their social life

Methods
A pre-tested questionnaire was administered to 385 house officers.The questionnaire consisted of 70 items each scored 1-5 on a 5-point scale ranging from strongly agree to strongly disagree. The questionnaire meant to explore the house officers perceptions of the following domains: pre graduation training (both campus based and hospital based), post graduate training, trainers, hospital atmosphere, and social self perception The study took place in Khartoum state. A random sample of house officers at different stages of their internship was selected from various hospitals .All were informed and consented to join the study

Results
385 house officers were selected randomly from different hospitals. More than 90% of them were below 30 years of age. Their overall perception was negative (198/350). They were most satisfied with theoretical teaching at medical school (62.78%), and least satisfied with hospital atmosphere and working conditions at their current work stations (39.49%).

They identified poor quality training at hospital wards, low salary, uncooperative administration, lack of proper supervision from consultants, poor hospital environment and long exhaustive working hours as major sources of job dissatisfaction.

Recommendations
Further studies are needed for better understanding of sources of job dissatisfaction among doctors .These studied will help identify strategies for improving the working conditions for doctors in the entire country.

ABSTRACT NUMBER: OO 5
Significant factors affecting academic achievement among the first year Health Sciences Undergraduate at Universiti Putra Malaysia

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Background
Learning problems could be of academic and non-academic in nature. First year undergraduate students may need more help to adapt and succeed in their academic performance. This study was conducted to examine self-perceived learning problems and the academic performance of students.

Methods
This was a cross-sectional study using self-administered questionnaire conducted from January until June 2010. The questionnaire consisted of 13 items assessing both academic and non-academic learning problems. All first year students enrolled in health sciences program at this university were invited to participate. Nursing students pursuing degree program were excluded due to age factor for being far older than the others. The latest examination marks were the dependent variable, ranges from 0 to 100. Data were analyzed using Statistical Package for Social Sciences (SPSS) version 18.

Results
A total of 281 students participated, a response rate of 100%. Students who perceived overwhelmed by their syllabus (t=2.88, p=0.004), felt their extra-curicular activities had interrupted their studies (t=2.07, p=0.039), admitted that they were in the program for the sake of their parents not out of this own interest (t=2.46, p=0.014) and said the university did not have conducive studying environment (t=2.17, p=0.031) scored significantly lower marks. A student who was coping well with their syllabus and who was studying out of own interest had on the average 4.4 (95% CI 1.05 to 7.74) and 5.0 (95% CI 0.36 to 9.55) higher marks respectively (R= 0.210, F= 8.26, p =0.004).

Conclusions
First year health sciences students in this University who felt overwhelmed by the syllabus, interrupted their studies by extra-curricular activities, forced to study by their parents and perceived poor study environment in the campus scored significantly lower marks compared with students who perceived otherwise.

ABSTRACT NUMBER: OO 6
Students' perspectives on educational environment in Medical Faculty of Andalas

Detty Iryani
University of Andalas, West Sumatra, Indonesia

Background
The educational environment is an important determinant of student behaviour and has relationship to their achievement, satisfaction and success. Therefore, medical education environment is a concept that's relevant to both students and medical teachers. The aim of this research was to assess student's perspective on educational environment in Medical Faculty, University of Andalas where new curriculum and method were conducted.

Method
We use inventory from Dundee Ready Education Environment Measure (DREEM) which consists of 50 items. The DREEM questionnaire was administered to all students from three classes: 2009, 2008 and 2007 (825 students). Total mean DREEM scores and mean scores for the five subscales were calculated and the data analyzed to determine significant trends.

Results
The overall mean DREEM score from the data of three classes indicates category more positive than negative according to the DREEM rating scale.

Conclusion
Even though the result of this research indicates category more positive than negative, faculty should put more attention and improve the educational environment of Medical Faculty, University of Andalas.

ABSTRACT NUMBER: OO 7
Determining the learning style of final year medical students using the Group Embedded Figures Test (GEFT)

Sivalingam Nalliah and Loh Keng Yin
International Medical University, Kuala Lumpur, Malaysia

Introduction
Learning styles (LS) relate to approaches individuals take when encountering assigned tasks. They seem to be consistent with choice of disciplines of study. The aim of this study was to determine LS of final year medical students at the IMU using the GEFT.

Methods
This was a cross-sectional study. The LS of final year medical students were determined using Witkin's GEFT. Consenting students were administered the GEFT having to complete the task within 25 minutes. Scores (ranging 0-18) derived for the test categorized them into there groups i.e. < 11, Field Dependent, 12-15, Field Neutral and 16-18, Field Independent.

Results
Seventy-eight subjects (of a total of 84 in semester 9) consented. Thirty one (43%) was male students and 41 (57%) were female students. Age ranged from 24-26 years. There was no significant difference between males and females in learning styles (p=0.941). The majority (76/78) were F, two were FN and none were FD.

Conclusion
It is clear that subjects would achieve higher grades if the field of study was congruent to the LS. The current study showed that 76/78 respondents were adopting the FI learning style. The study supported our presumption that final year medical students adopted a 'mature' learning style that involved both a distinct behavior of acquiring information adapting to the learning environment which used a spiral curriculum and multiple learning strategies incorporating clinical skills learning and competency based assessment evaluated formatively. The findings of the LS in this study are congruent with others that those who preferred a science related discipline like medicine tended to gravitate to learning styles where individual self directed learning was adopted and problem solving and higher order thinking were required. Gender did not impact on LS.

ABSTRACT NUMBER: OO 8

Knowledge about A/H1N1 and willingness to take A/H1N1 vaccination among undergraduate medical students: Are there differences?

Rachel Tan Yi Ping[1, 2] and Cho Naing[1]
[1]International Medical University, Kuala Lumpur, Malaysia
[2]University of Melbourne, Australia

Background
Higher education institutions with large populations of young adults can become potential outbreak centers for any respiratory-transmitted infection. A confirmed case of a student with 2009 Pandemic influenza A/H1N1 was reported in the International Medical University (IMU), Malaysia. Currently, A/H1N1 vaccine is available in Malaysia. However, the willingness of university students to take the vaccine is unknown. The objectives were: (i) to determine knowledge about pandemic influenza A/H1N1 and willingness to take the vaccination amongst undergraduate medical students, and (ii) to identify variables that could predict the likelihood of willingness to take the vaccination.

Methods
A cross-sectional study was conducted among 264 phase 1 undergraduate medical students at IMU from July to August 2010. A piloted self-administered questionnaire was used to collect data on socio-demographic characteristics, knowledge about and perception of A/H1N1 and the vaccine and willingness to take the vaccination. A logistic regression model was performed to derive predictors for the willingness to take the vaccination.

Results
Of 264 respondents, the mean (± SD) age was 20.4 (± 1.9) years, more than half were females (55.7%), and currently staying at the hostel (57.6%). More than one third (38.3%) had at least 2 misconceptions regarding modes of transmission. The vast majority would adopt sufficient preventive behaviour such as frequent hand washing (95.8%) and cough etiquette (97.7%), among others. Less than half (42.8%) were willing to take the vaccination even if it were to be provided for free. The final logistic model indicated that "vaccine efficacy" and "worrying for their family members" were the predictors for their willingness to take vaccination. The predictive ability of this model was tested (Nagelkerke R2 = .228).

Conclusion
Our findings indicated that more scientific-based information is required for undergraduate students; specifically, the attributes of the A/H1N1 infection, transmission pattern and efficacy, safety, and benefits of the A/H1N1 vaccine.

Shortlisted Poster Presentations

International Medical University
Bukit Jalil, Kuala Lumpur

Code No	Title
PA 2	**Improved procedure for building and institutional question bank for high stake entrance exams** *Kishore Kumar Deepak* *All India Institute of Medical Sciences, New Delhi, India*
PTL 10	**Learning style and the perception of the learning strategies among the first year medical students** *Bataduwaarachchi V. R., Dissanayake M.M, Thillainathan S., Samarakoon L. B. and Jayasekara R. W.* *University of Colombo, Colombo, Sri Lanka*
PE 7	**A novel curriculum evaluation tool to compare the outcomes of different medical curricula** *R. B. Marasinghe[1], M.T.M. Jiffry[1], P. Abeykoon[2] and C. Stephens[3]* *[1]University of Sri Jayewardenepura. Sri Lanka.* *[2]World Health Organization, Sri Lanka.* *[3]University of Southampton, United Kingdom*
PA 7	**Using Script Concordance Testing (SCT) as a new modality of assessment for graduate entry medical students – A pilot study** *Wan SH, Duggan P, Canalese R, Lam LT, and Frost G* *University of Adelaide, Australia*
PA 18	**A preliminary study on the effectiveness of e-formative assessment on academic performance of pharmacy students** *Srinivasan Ramamurthy, Hui Meng Er and Peter Pook* *International Medical University, Kuala Lumpur Malaysia*
PTL 43	**Learning approaches of first year Sri Lanka Dental Students** *Chantha Jayawardena, Thushari Hewapathirana, Shayama Bannaheka, Sajeew Ariyasinghe, Dammika Ihalagedera* *University of Peradeniya, Peradeniya, Sri Lanka*
PA 15	**Practical experience of conducting Multi-Source Feedback (MSF) in midwifery students of Mashhad Faculty of Nursing and Midwifery** *BB Leila Hoseini and Farzaneh Jafarnejad* *University of Medical Sciences, Iran*
PCE 12	**Attitude of surgical and anaesthetic postgraduate trainees towards teaching medical undergraduates** *Viduranga Kotalawala, Anuja Abayadeera, Marthani Balasubramaniam and Gominda.G. Ponnamperuma* *University of Colombo, Colombo, Sri Lanka*
PO 20	**Influences on Malaysian pharmacy students' career preferences** *Syed Shahzad Hasan[1], David Chong Weng Kwai[1], Keivan Ahmadi[1], Wong Pei Se[1], Ernieda Mohd Hata[2], Muhammad Abdul Hadi[3], Azmi Ahmad Hassali[4], Low Bee Yean[1], Syed Imran Ahmed[1] and Benny Efendie[1]* *[1]International Medical University, Kuala Lumpur, Malaysia* *[2]Universiti Kebangsaan Malaysia, Kuala Lumpur, Malaysia* *[3]Universiti Tecknologi Mara Selangor, Malaysia* *[4]Universiti Sains Malaysia, Penang, Malaysia*

Code No	Title
PTL 18	**Internal evaluation of epidemiology and biostatistics department of the faculty of health in Tehran University of Medical Sciences** *Fereshteh Farzianpour* *Tehran University of Medical Sciences, Iran*
PTL 21	**Assessing the impact of teaching WHO's prescription guidance on prescribing skill of midwifery students through role playing** *Parang serveh, Golmakani Nahid, Movaffaq Gebreil and Ja'fari Sani Hossein* *Mashhad University of Medical Sciences, Iran*
PTL 48	**Effectiveness of using mind maps in learning vitamins** *Ashakiran, Krishna Murthy, Prabhavathi, Ganesh and Deepthi* *Sri Devaraj Urs Medical College, Kolar, India*
PPG 4	**Residency clinical training in Mongolia** *Oyunsuren Enebish, Enkhtur Yadamsuren, Amarsaikhan Dashtseren and Lkhagvasuren Tserenkhuu[2]* *University of Mongolia, Ulaanbaatar, Mongolia*
PTL 54	**Experiences of developing a case-based learning module for a faculty development programme at Manipal University.** *C.V. Raghuveer, Vasudha Devi, Barathi Subramaniam, Reem Rachel Abraham, Vinod Pallath and Ganesh Kamath* *Melaka Manipal Medical College, India*
PE 28	**A survey of medical technology curricula and careers of graduates in 20 national universities in Japan** *Junichi Kameoka*[*1], Kazuyoshi Kawakami*[*2], Masahito Miura*[*2], Seiichi Ishii*[*1], Hiroshi Kanatsuka*[*1]* *Tohoku University, Miyagi, Japan*

Poster Presentations

International Medical University
Bukit Jalil, Kuala Lumpur

Poster : Assessment	
Code No	**Title**
PA 1	**Evaluation of Objective Structured Clinical Examination (OSCE)** Fariba Rezaeetalab Md, Azitta Ganji Md, Ahmad Khosravi Md, Hadi Akbari Md and Farzaneh Akbari *Mashhad University of Medical Sciences, Mashhad, Iran*
PA 2	**Improved procedure for building and institutional question bank for high stake entrance exams** Kishore Kumar Deepak *All India Institute of Medical Sciences, New Delhi, India*
PA 3	**Anxiety level of Universitas Pembangunan Nasional "Veteran" Jakarta medical students when facing assessment in competency-based curriculum.** Fariz Maulana, Ria Maria Theresa, Nurfitri Bustamam *Universitas Pembangunan Nasional, Jakarta, Indonesia*
PA 4	**Perceptions of medical students towards peer assessments** Jennifer Perera, Chathuri Cumarachchi, Nuwangika Marcellin, Gominda Ponnamperuma *Faculty of Medicine Colombo, Colombo, Sri Lanka*
PA 5	**Correlation between peer assessment and self-assessment in group projects.** Jennifer Perera, Nuwangika Marcellin, Chathuri Maddumarachchi, Gominda Ponnamperuma *Faculty of Medicine Colombo, Colombo, Sri Lanka*
PA 6	**Reliability of peer assessment in undergraduate group projects** Gominda Ponnamperuma, Jennifer Perera, Nuwangika Marcellin, Chathuri Maddumarachchi *Faculty of Medicine, Colombo, Sri Lanka*
PA 7	**Using Script Concordance Testing (SCT) as a new modality of assessment for graduate entry medical students – A pilot study** Wan SH, Duggan P, Canalese R, Lam LT, and Frost G *University of Adelaide, Adelaide, Australia*
PA 8	**How effective is an Objective Structured Practical Exam (OSPE) as a tool to assess basic science knowledge of medical undergraduates?** Avindra J.P.M. Jayawardene *University of Ruhuna Matara, Sri Lanka*
PA 9	**On the attitude of students of Shiraz University of Medical Sciences the modern method of e-assessment in the form of e-portfolio.** Neamatollahi, Parastoo. Farhadi, Pooya. Namvar, Ali reza *Shiraz University of Medical Sciences, Shiraz, Iran*
PA 10	**Students' perception on the first implemented Objective Structured Clinical Examination (OSCE) mock as a baseline for improvements in the final OSCE** Sara Lavinia Brair *Al Neelain University, Sudan, Africa*
PA 11	**Prescribing analysis assignment for 1st year students: Lesson learnt** Riana Rahmawati, Diani Puspa Wijaya *Islamic University of Indonesia, Indonesia*
PA 12	**Evaluation of midwifery student's life saving skills with Objective Structure Clinical Examination** Mahin Tafazoli, Sara Hosseini, Abbas Makarem, Saeed Ebrahim Zadeh, Saeedeh Sadat Sajadi *Mashhad University of Medical Science, Mashhad, Iran*

Poster : Assessment	
Code No	**Title**
PA 13	**Changes of medical student's clinical performance ability according to the number of Clinical Performance Examination (CPX)** Yoon hee Lee. *Kyung Hee University, Seoul, Korea*
PA 14	**The problem with negatively worded MCQs** Neville Chiavaroli *Melbourne Medical School, Melbourne, Australia*
PA 15	**Practical experience of conducting Multi-Source Feedback (MSF) in midwifery students of Mashhad Faculty of Nursing and Midwifery** BB Leila Hoseini, Farzaneh Jafarnejad, Mohsen Foroughipour *Mashhad University of Medical Sciences, Mashhad, Iran*
PA 16	**Do the current admission criteria predict the academic performance of nursing undergraduates?** Seneviratne, S.M.K.S., Wijesinghe, R.A., Fernando, D.M.S. *University of Sri Jayawardenepura, Colombo, Sri Lanka*
PA 17	**Are IMU students' knowledge and skills on breast cancer adequate? Analysis of Semester 9 examination.** Sangeetha Poovaneswaran *International Medical University, Kuala Lumpur, Malaysia*
PA 18	**A preliminary study on the effectiveness of e-formative assessment on academic performance of pharmacy students** Srinivasan Ramamurthy, Hui Meng Er, Peter Pook *International Medical University, Kuala Lumpur, Malaysia*
PA 19	**Evaluation of resident communication skills by direct observation in Shiraz University of Medical Sciences** Leila Bazrafkan *Shiraz University of Medical Sciences, Shiraz, Iran*
PA 20	**"Assessing medical students' communcation skills during OSCE"** Tuul.P[1], Solongo. B[2], Tserendagva D[3], Otgonbayar D[4], Amarsaikhan D[5] *Health Sciences University of Mongolia, Ulaanbator, Mongolia*
PA 21	**Teacher's perception of the first implemented OSCE mock as a reference for perfection in the final clinical exam for medical students** Sara Lavinia Brair *Al Neelain University, Sudan, Africa*
PA 22	**Objective assessment of midwifery students' practical skills in comprehensive final exam: Comparison of checklist method with expert tutor's opinion** Farzaneh Jafarnejad and BB Leila Hoseini *Mashhad University of Medical Sciences, Mashhad, Iran*
PA 23	**Common misconceptions highligted among high achievers in an Inter-Medical Physiology Quiz** Cheng Hwee Ming[1] and Damayanthi Durairajanayagam[2] [1]*University Malaya, Kuala Lumpur, Malaysia* [2]*Universiti Teknologi MARA, Shah Alam, Selangor, Malaysia*
PA 24	**Assessment of the quality of the examination in pharmacy curriculum** May Khin Soe, Tariq bin Abdul Razak, Noriah Mohad Noor, Muhamad Rusdi Rusmili *International Islamic University Malaysia, Pahang, Malaysia*

Poster : Curriculum Development	
Code No	**Title**
PCD 1	**Effectiveness of undergraduate longitudinal research curriculum** H Tamim, H Kadri, M Zamakhshary, A Sayyari, M Magzoub *King Abdul Aziz University for Health Sciences, Jeddah, Saudi Arabia*
PCD 2	**Complementary and Alternative Medicine (CAM) education and medical students' attitutes towards CAM** Chang BH, Yeo SH *Kyungpook National University, Deagu, Korea*
PCD 3	**Student perception on ideal elective study program in the implementation of competence-based curriculum** I Made Subagiarta *Udayana University, Bali, Indonesia*
PCD 4	**Klang Valley Healthcare providers' perception of the use of Chinese Medicine for the promotion of health and treatment of diseases.** Yeoh Peng Nam, Koh Wan Ling Mak Joon Wah, Cho-Min Naing, Lim Chun Wei, Koh Chia Yan, Tan Ee Vern and Liow Sook Mee *International Medical University, Kuala Lumpur, Malaysia*
PCD 5	**Necessity of integration in pharmacy education** Hamid Akbari Javar[1,2] and Reyhaneh Akbari[3] [1]*Tehran University of Medical Sciences, Tehran, I.R.Iran* [2]*Cyberjaya University College of Medical Sciences, Malaysia* [3]*Management and Sciences University, Shah Alam, Malaysia*
PCD 6	**Making sense of evidence based medicine – A novel based learning resource for senior medical student** Conor Sugrue[1], Eamonn Fahy[1] and Gerard Flaherty[2] [1]*University Hospital Galway,Galway, Ireland* [2]*School of Medicine, National University of Ireland, Galway, Ireland*
PCD 7	**A bridging course to acclimatize new physiotherapy students: Experience of four batches** Rodrigo UCH, Samarakoon PSMJU, de Abrew A, Karunathilake I and Ponnamperuma G *University of Colombo, Colombo, Sri Lanka*
PCD 8	**Evaluation of two-year implementation of Ajou Curriculum for Medical Excellence 2009** Ki-Young Lim, Yoon-Sok Chung, Kyi-Beom Lee, Yun-Hoon Choung, Sang-Uk Han, Jae-Ho Lee, Bom-Taeck Kim and Su-Jin Chae *Ajou University, South Korea, Korea*
PCD 9	**Inclusion of affective domain course in the medical education curricula** Faridah Karim *Cyberjaya University College of Medical Science, Selangor, Malaysia*
PCD 10	**Knowledge and attitude of medical students towards passive smoking** Justin Gnanou[1], Smita Avhad[2], Milind Avhad[2] and Brinnell Caszo[1] [1]*UiTM, Shah Alam, Malaysia* [2]*USAIM, Mahe, Seychelles*
PCD 11	**Nationally-sponsored initiatives for modernizing medical education curricula: A tale of two countries** Kevin A. Mack *Johns Hopkins University, Maryland, USA*
PCD 12	**Development of a competency based medical education model** Kyung Hee Chun, Won Kyun Park, Dong Yoon Keum, Sang Sook Lee, Eunmi Jo, Young Soon Park *Kyungpook National University, Daegu, Korea*

Poster : Clinical Education	
Code No	**Title**
PCE 1	**The effective "A Bents" in choosing doctors from Yasujs people point of view** Mobaraki A, Mahmody F *Yasuj University Of Medical Science, Yasuj, Iran*
PCE 2	**Clinical skills center at Faculty of Medicine, King Fahad Medical City, Riyadh** Muhammad Zafar, Ali Tale Asery *King Fahad Medical City, Riyadh, Kingdom of Saudi Arabia*
PCE 3	**The obstacles in carrying out instruction design (plan) studied from professor's outlook and presenting revising techniques** Mobaraki Asea *Yasuj University Of Medical Science, Yasuj, Iran*
PCE 4	**Students' point of view on clinical training: A qualitative study among preclinical students** Asty Amalia *Medical Faculty Hasanuddin University, Sulawesi, Indonesia*
PCE 5	**Patient empathy among medical students** Marivic A.Villamor *University of the East Ramon Magsaysay Memorial Medical Center, Inc., Philippines*
PCE 6	**Stress level assessment among final year pharmacy students during Satellite and Therapeutic Drug Monitoring (TDM) clerkship in Universiti Sains Malaysia Hospital (HUSM) Kelantan Malaysia** Sabariah Noor Harun, Siti Maisharah Sheikh Ghadzi, Nur Hafzan Md. Hanafiah *Universiti Sains Malaysia, Kelantan, Malaysia*
PCE 7	**Students' performance and knowledge about cardiac life support. Does simulated teaching make a difference?** Thiruselvi S, Sangeetha P, Rosalind N, Ng Char Hong, Loh Keng Yin *International Medical University, Kuala Lumpur, Malaysia*
PCE 8	**Clinical skills unit: The students' perspective and utilization** Thiruselvi S, Sangeetha P, Rosalind Loo, Ng Char Hong, Loh Keng Yin *International Medical University, Kuala Lumpur, Malaysia*
PCE 9	**Impact of distributed medical education, evaluation of 3-year implementation** Dewi SP, Hidayat EM, Setiawan I, Achmad TH *Universitas Padjadjaran, Bandung, Indonesia*
PCE 10	**Developing standards for skill performance times in nursing clinical education program according to learning curve** Seyed Reza Mazloum, Khizaran Miri, Javad Malekzade and Nayere Davoodi *Mashhad University of Medical Sciences, Mashhad, Iran*
PCE 11	**Clinical education in dentistry: Students viewpoints** Zarshenas L, Mazaree E, Momeni Danaei Sh *Shiraz University of Medical Sciences, Mashhad, Iran*
PCE 12	**Attitude of surgical and anaesthetic postgraduate trainees towards teaching medical undergraduates.** Viduranga Kotalawala, Anuja Abayadeera, Marthani Balasubramaniam, Gominda.G. Ponnamperuma *University of Colombo, Colombo, Sri Lanka*
PCE 13	**Medical education registrars: Embedding education in clinical contexts** Karen Roberts *Queensland Medical Education and Training, Queensland, Australia*

Poster : Clinical Education	
Code No	**Title**
PCE 14	**Clinical supervisor preparation: Strategic leadership to build medical supervisor capacity** Karen Roberts *Queensland Medical Education and Training, Queensland, Australia*
PCE 15	**Adaptation, utilization and effectiveness of Context, Input, Process, Product (CIPP) model of program evaluation to development of a simulation program** Morin, M-P, Dubrowski A *University of Toronto, Toronto, Canada*
PCE 16	**Decreasing women physical & psychic consequences of Pre-Menses Syndrome (PMS) through a Multidimensional Skills Program** [1]Elhaam Fakhaari and [2]Kiaanush Jahaanpur *[1]Alzahra University, Tehran, Iran* *[2]General Practitioner, Iranian Offshore Oil Co.(IOOC), Tehran, Iran*
PCE 17	**Impact of education on the knowledge and performance of the protective measures of anticancer drugs in clinical staff** Mahdi Shahriari *Shiraz University of Medical Sciences, Shiraz, Iran*
PCE 18	**To find prevalence and pattern of use of Allopathic and Ayurvedic Medicines in asthma and arthritis in selected Primary Health Centres and a Tertiary Care Ayurvedic Teaching Hospital in Mysore** Prasanna Kumar, A. Ramesh, and G. Parthasarathi *JSS College of Pharmacy, SS Nagara, India*
PCE 19	**Effect of emotional intelligence on Patient-Physician Interaction Scores on clinical performance examination** Sung-Hae Kim *Kyung-Hee University School of Medicine, Seoul, Korea*
PCE 20	**Developing motivational interviewing skills of dental students in the prevention of Chronic Inflammatory Periodontal Disease** Hanan Abdel Kahlik El Sayed Omar *International Medical University, Kuala Lumpur, Malaysia*
PCE 21	**Does a "prescribing skills workshop" improve undergraduate medical students' competence in prescribing?** Sim Si Mui, Mohazmi Mohamed, Tan Choo Hock, Chua Siew Siang, Pauline Lai Siew Mei *University of Malaya, Kuala Lumpur, Malaysia*

Poster : Evaluation	
Code No	**Title**
PE 1	**Assessment of the effect of professor's knowledge and attitude from community oriented medical education** Seyedeh Negar Assadi, Marzieh Rezaeian and Seyed Hasan Assadi *Mashhad University of Medical Sciences, Mashhad, Iran*
PE 2	**Researching the selection of medical students: What works?** Ian Wilson *University of Western, Sydney, Australia*
PE 3	**Identifying the quality criteria for community-based medical education in Hong Kong** Chin WY, Johnston J, Lam C and Cheung A *University of Hong Kong, Hong Kong*

Poster : Evaluation	
Code No	**Title**
PE 4	**The perception of medical students on the teaching change competence of lecturers in the block evidence based case medicine, in 2008** Suyasning HI, Sutisna P, Adioka G *Denpasar, Bali, Indonesia*
PE 5	**Effectiveness of national sexual and reproductive health training programs in increasing knowledge among participants** Asanka U.K. Godamunne, Sampath U.B. Tennakoon and Dinesh M.G. Fernando *University of Peradeniya, Peradeniya, Sri Lanka*
PE 6	**The effect of ethics education for the researchers related to Xenotransplantation** Mo, Hyo-Jung *Ewha Womans University, Seoul, Korea*
PE 7	**A novel curriculum evaluation tool to compare the outcomes of different medical curricula** R. B. Marasinghe[1], M.T.M. Jiffry[1], P. Abeykoon[2] and C. Stephens[3] *[1]University of Sri Jayewardenepura, Sri Lanka* *[2]World Health Organization, Sri Lanka* *[3]University of Southampton, United Kingdom*
PE 8	**Klang Valley public's perception of the use of Chinese Medicine for the promotion of health and treatment of diseases** Yeoh Peng Nam, Koh Chia Yan, Mak Joon Wah, Cho-Min Naing, Lim Chun Wei, Koh Wan Ling, Tan Ee Vern and Liow Sook Mee *International Medical University, Kuala Lumpur, Malaysia*
PE 9	**Klang Valley University students' perception of the use of Chinese Medicine for the promotion of health and treatment of diseases** Yeoh Peng Nam, Tan Ee Vern, Cho-Min Naing, Mak Joon Wah, Lim Chun Wei, Koh Chia Yan, Koh Wan Ling and and Liow Sook Mee *International Medical University, Kuala Lumpur, Malaysia*
PE 10	**EBM knowledge of medical students** Samkaew Wanvarie *Mahidol University, Nakhon Pathon, Thailand*
PE 11	**Midterm evaluation of a research methodology course compared with the students' performance in the research methodology midterm exam** Sara Lavinia Brair *Al-Neelain University, Sudan, Africa*
PE 12	**Quality assurance in the delivery of vertically integrated curriculum** Nazish Rafique and Dr. Basil Alsheikh *University of Dammam, Damman, Saudi Arabia*
PE 13	**Implementation of vertically integrated methodology for teaching and assessment of physiological concepts** Nazish Rafique, Dr. Basil Alsheikh *University of Dammam, Damman, Saudi Arabia*
PE 14	**Patients' views and satisfaction of caring behaviors shown by nurses in male and female medical wards at a General Hospital in Malaysia.** Lim Pek Hong and Sutha Maniam Subramaniam *International Medical University, Kuala Lumpur, Malaysia*
PE 15	**The library: Is it supportive to an integrated curriculum?** Tasneem Akhtar, Shazia Fakhar and Gulshan Saeed *Shifa College of Medicine, Islamabad, Pakistan*

Poster : Evaluation	
Code No	**Title**
PE 16	**To be or not to be: Engaging health professional teachers in medical education research** Vishna Devi Nadarajah *International Medical University, Kuala Lumpur, Malaysia*
PE 17	**What needs to be changed in the medical school? The clinical teachers' perspective** Marcus Henning, Susan J Hawken, Ralph Pinnock, and Boaz Shulruf *University of Auckland, Auckland, New Zealand*
PE 18	**Questionnaire on questionnaires: An assessment of perceptions of respondents to questionnaires** Wai Phyo Win, Meenakshi Akhilesh, Katrina Azman *International Medical University, Kuala Lumpur, Malaysia*
PE 19	**Assessment of midwifery students' and tutors' satisfaction of logbook clinical evaluation method in Mashhad Faculty of Nursing & Midwifery** Farzaneh Jafarnejad, BB Leila Hoseini and Reza Mazlom *Mashhad University of Medical Sciences, Mashhad, Iran*
PE 20	**Modern clinical evaluation trends: assessment of performance in practice** Arash Sefidgaran and BB Leila Hoseini, *Mashhad University of Medical Sciences, Mashhad, Iran*
PE 21	**Student's feedback in improving learning in community medicine** Anurag Chaudhary *Dayanand Medical College & Hospital, Punjab, India*
PE 22	**Students' perspectives on feedback given regarding their performance in pharmacology examination at Melaka Manipal Medical College (MMMC), India** Vasudha Devi and Tatiyana Mandal *Melaka Manipal Medical College, Manipal University, India*
PE 23	**Social self-perception of learning environment by students in a new medical school in Saudi Arabia** Abdalla Abdelwahid Saeed, Hashim Hassan Ahmad, Ali Ahmed Mustafa, Abdulaziz Fahad Al-Kabbaa and Abdelshakour Mohammed Abdalla *King Saud Bin Abdul Aziz University for Health Sciences, Jeddah, Saudi Arabia*
PE 24	**Desired attributes in a Faculty of Dentistry as perceived by students: A case study from Pakistan** Abdul Wahid Usmani, Sobia Bilal, Suraiya Khatoon and Irfan Qasim *Dow University of Health Sciences, Karachi, Pakistan*
PE 25	**The evaluation of attitude of dentistry students toward their field and future career in the international branch of Shiraz University of Medical Sciences** Armaghan Tarjan, Sahar Zare, Rastin Sadeghian, Mohammad Javad Aslani, Mohammad mehdi Tohidian *Shiraz University of Medical Sciences, Shiraz, Iran*
PE 26	**Evaluation of new method of primary-orientation of new-comer residents of general surgery at Shiraz University of Medical Sciences** Fatemeh Jafarzadeh[1], Shahram Paydar[2], Pouya Farhadi[1], Kasra Namvar[1] [1]*Shiraz University of medical sciences, Shiraz, Iran* [2]*Trauma Research Center, Iran*
PE 27	**Factor structure of the Malay version of the perceived stress scale among medical students** Sami Abdo Radman AL-Dubai, Redhwan Ahmed Al-Naggar, Mustafa Ahmed Alshagga and Najihah Mohd Bisri *Management and Science University, Selangor, Malaysia*

Poster : Evaluation	
Code No	**Title**
PE 28	**A survey of medical technology curricula and careers of graduates in 20 national universities in Japan** Junichi Kameoka, Kazuyoshi Kawakami, Masahito Miura, Seiichi Ishii, Hiroshi Kanatsuka *University Graduate School of Medicine, Japan*
PE 29	**Evaluation of relationship between family social support and well-being in nursing and midwifery students** Zahra Shogaeian[1] and Zahra Dalir[2] *[1]Islamic Azad university of Ghouchan branch, Iran* *[2]Mashhad University of Medical Sciences, Mashhad, Iran*
PE 30	**Evaluation of the implementation of competency-based curriculum at the Faculty of Medicine Andalas University – Padang** Eryati Darwin *Andalas University, Padang, Indonesia*
PE 31	**Simulator patient evaluation of student's attitude during the final Obstetrics & Gynaecology OSCE exam as an experiment for introducing attitude evaluation in the grading scheme of students' evaluation in future exams** Sara Lavinia Brair *Co – Author: Ahmed Babiker Ali* *Al Neelain University, Sudan, Africa*
PE 32	**Students' perception on an Environmental Health Course as an evaluation for its re-implementation and addition to the Community Medicine Curriculum** Sara Lavinia Brair *Al Neelain University, Sudan, Africa*
PE 33	**Inclusion of social accountability standards in accreditation of medical schools** Hameed Mohammed Aklan and Abdullah Abdu Almikhlafy *University of Science & Technology, Sana'a, Yemen, Saudi Arabia*
PE 34	**Evaluation of the graduate programs in faculty of Pharmacy of Tehran University of Medical Sciences** Khalaj Ali *Tehran University of Medical Sciences, Tehran, Iran*
PE 35	**Alternative approaches to medical training admissions policies: Changing the local rules** Kevin A. Mack, Wuleta Lemma, Robert Buckley and Mefsin Araya *University of California, Berkeley, California*
PE 36	**Some issues on evaluation of the integrated medical curriculum** Otgonbayar Damdinbazar, Oyunsuren Enebish, Sumberzul Nyamjav, Amarsaikhan Dashtseren, Tserendagva Dalkh and Lkhagvasuren Tserenkhuu *University of Mongolia, Mongolia*
PE 37	**Competence-based curriculum in the students' points of view: A preliminary study of CBC evaluation at the School of Medicine Atma Jaya Catholic University Indonesia** Felicia Kurniawan, Elisabeth Rukmini *Atma Jaya Catholic University Indonesia, Jakarta, Indonesia*
PE 38	**Evaluation of the joint master of health professions education – a distance learning program – between Suez Canal University, Egypt and Maastricht University, the Netherlands** Asmaa A. Mohamed, Wagdy T. Yousef, Adel M. Hamam and Nehal N. Khamis *Suez Canal University, Ismaila, Egypt*

Poster : Faculty Development	
Code No	**Title**
PFD 1	**The creation of a medical education unit in a newly established medical school** Dunseath T, Thomas S, Chooi Yee, Lee and Wai Mun See *Jeffrey Cheah School Of Medicine & Health Sciences,* *Monash University Sunway Campus, Malaysia*
PFD 2	**CtME : Enhancing faculty development** Katrina Azman[1], Catherine Arokiasamy[1], Ramesh Chandra Jutti [1] & Hla Yee Yee[2] *International Medical University, Kuala Lumpur, Malaysia*

Poster : Problem-Based Learning (PBL)	
Code No	**Title**
PPBL 1	**Factors influencing the successful implementation of PBL** Rahila Yasmeen and Umar Ali Khan *Riphah International University, Rawaupindi, Pakistan*
PPBL 2	**Introduction to Problem-Based Learning (PBL): An innovation to teach how to learn in medical school** Erike Suwarsono, Fika Ekayanti and Francisca A.T *Syarif Hidayatullah State Islamic University, Jakarta, Indonesia*
PPBL 3	**Experience with problem oriented teaching in pharmacology** Kristova V, Tisonova J, Wawruch M, Lassanova M, Vojtko R and Capova G *Comenius University, Slovakia, Bratislara*
PPBL 4	**Student and Faculty Perceptions of PBL: Are they different?** Htin Aung, Azhar bin Noor and Aung Ko Ko Min *MAHSA University College, Kuala Lumpur, Malaysia*
PPBL 5	**The influence of students' approaches to learning on their achievement of the modules in problem based learning** Fika Ekayanti, Erike Anggraini, Fransisca and M. Kes *State Islamic University Syarif Hidayatullah, Jakarta Selatan, Indonesia*
PPBL 6	**A report on the students' feedback on the implementation of problem based learning in a new medical faculty** Muralidhara DV, Nordin Simbak, Rohayah, Nor Iza, Salwani and Ahmad Zubaidi *University Sultan Zainal Abidin, Terengganu, Malaysia*
PPBL 7	**PBL or CBL? That is the question!** Hla Yee Yee, Gnanajothy Ponnudurai & Yu Sui Chen *International Medical University, Kuala Lumpur, Malaysia*

Poster : Postgraduate	
Code No	**Title**
PPG 1	**Specialty choice: Personal decision yet influenced by many factors** Tasneem Akhtar, Shamsun-nisa Sadia and Huma Tasleem *Shifa College of Medicine, Islamabad, Pakistan*
PPG 2	**How well do primary care physicians in the UAE understand and utilise communications skills?** Deen M. Mirza[1], Muhammed J. Hashim[1], Lolowa A. Al-Mekaini[2] and Latifa M.B. Al-Ketbi[2] *[1]UAE University, United Arab Emirates* *[2]SEHA Ambulatory Health Services, Abu Dhabi, United Arab Emirates*

Poster : Postgraduate	
Code No	**Title**
PPG 3	**The house officers' opinions of the learning environment and their academic achievements from the MBBS training course** Marlar Than, Kaeithi Hpon Naine, Zaou Myo Han and Ye Phyo Aung *Defence Service Medical Academy Yangoon, Myanmar*
PPG 4	**Residency clinical training in Mongolia** Oyunsuren Enebish, Enkhtur Yadamsuren, Amarsaikhan Dashtseren and Lkhagvasuren Tserenkhuu *University of Mongolia, Mongolia*
PPG 5	**Continuing medical education for general practitioners in Myanmar: Assessment on teaching – learning preferences of participants of clinical module on the strengthening continuing medical education course** Tin Myo Han*, Win Zaw*, Tin Aye* and Tin Tin Hla* *Myanmar Medical Association – General Practitioners' Society, Myanmar*
PPG 6	**Improving teaching skills of clinical hospital-based tutors and faculty through a blended training course in teaching (BTCT)** Jorge Ruben Garcia *International Medical University, Kuala Lumpur, Malaysia*

Poster : Teaching / Learning	
Code No	**Title**
PTL 1	**Teaching medical students neonatal resuscitation: Knowledge gained and retained from a brief simulation-based training workshop** Chin Fang Ngim, Nai Ming Lai, Paul Fullerton *Monash University Sunway Campus, Johor Bahru, Johor*
PTL 2	**Best practice anatomy teaching in a remote medical school campus in Australia's northern territory** Patricia Bate *Flinders University, Adelaide, Australia*
PTL 3	**Medical students' attitudes toward mobile parasitological examination in the community** Natthawut Kaewpitoon, Jaruwan Siritapetawee, Sanong Suksawaeng and Soraya J Kaewpitoon *Suranaree University of Technology, Suranaree, Thailand*
PTL 4	**Pathology Crossword Competition: An active and easy way of learning pathology in undergraduate medical education** Than Than Htwe, Sabaridah Binti Ismail, Rajyaguru KM, Mazidah Ahmad Mansur *UniKL-RCMP, Perak, Malaysia*
PTL 5	**To determine the IMU students' perception of learning communication skills in history taking with a real patient versus a stimulated patient.** Amirthalingam Sasikala Devi, Sow Chew Fei and Ramanathan Subramanian *International Medical University, Kuala Lumpur, Malaysia*
PTL 6	**How can you create the relationship between theoretical education and clinical education?** Rasekh Jahromi Athar, Karami M.Y, Amanat A, Makarem A, Setoodeh jahromi A. Nasseri M.A, Pad N, Jamali S. *Jahrom university of Medical Sciences, Jahrom, Iran*
PTL 7	**The impact of Dental Biomaterial Portfolio development on first year undergraduate student learning** Umer Daood *International Medical University, Kuala Lumpur Malaysia*

Poster : Teaching / Learning	
Code No	**Title**
PTL 8	**Efficacy of evidence-based workshop in education of midwifery students** Samira Ebrahimzadeh Zagami, Fatemeh Erfanian *Mashhad University of Medical Sciences, Mashhad, Iran*
PTL 9	**Introducing Integrated Selective during Pre-clinical Year in the medical curriculum** Sow Chew Fei, Ramanathan Subramanian, Christeine Ariaranee Gnanathasan *International Medical University, Malaysia*
PTL 10	**Learning styles and the perception of the learning strategies among first year medical students** Bataduwaarachchi V. R., Dissanayake M.M, Thillainathan S., Samarakoon L. B. and Jayasekara R. W. *Faculty of Medicine, Colombo, Sri Lanka*
PTL 11	**The effect of program of research paper writing for medical school students** Wook-Jin Chung *Gachon University Gil Medical Centre, Gachon,Korea*
PTL 12	**Assessing evidence based learning through online system: Introducing an easy way to assess learning objectives achievement** Fundhy S.I. Prihatanto, and Nancy M. Rehatta *Airlangga University, Surabaya, Indonesia*
PTL 13	**Use of Internet and learning behavior** Shiva Beigizadeh *Jahrom University of Medical Sciences and Health Services, Iran*
PTL 14	**Self assessment reporting enhances acquisition and retention of clinical skills** Endang Lestari *Sultan Agung Islamic University Semarang Indonesia*
PTL 15	**Evaluation of medical students' viewpoints on drug addiction prevention e-course** Mojtaba Bahrami, Pouya Farhadi, Kasra Namvar, Parastoo Nematollahi *Shiraz University of Medical Sciences, Shiraz, Iran*
PTL 16	**Evaluation of e-learning workshop held in 3rd summer school by the students, central committee of Shiraz Education development center** Bazargani, Mohammad Reza. Neamatollahi, Parastoo, Esmail Ghorbaninezhad, Mohammad. Farhadi, Pooya. *Shiraz University of medical sciences, Shiraz, Iran*
PTL 17	**Evidence-Based Medicine teaching in undergraduate studies: A preliminary assessment** Lee Li Ching Yeow Toh Peng, Samuel Easaw, Choo Wai Sun, Tan Tow Shung, Amir Khir and Richard Loh Li Cher *Penang Medical College, Pulau Pinang Malaysia.*
PTL 18	**Internal evaluation of epidemiology and biostatistics department of the Faculty of Health in Tehran University of Medical Sciences** Fereshteh Farzianpour *Tehran University of Medical Sciences, Tehran, Iran*
PTL 19	**The opinions of students and professors on the introduction of the elective course tagging along medical professor as one of 1st year students' curriculum Inha University School of Medicine** Jiho Choi, Yeonji Lee and Jonghoon Kim *Inha University School of Medicine, Incheon, South Korea*

Poster : Teaching / Learning	
Code No	**Title**
PTL 20	**Student's perception about learning critical thinking: An evaluation of application Critical Thinking Question List (CTQL) as a learning method** Umatul khoiriyah *Islamic University of Indonesia, Indonesia*
PTL 21	**Assessing the impact of teaching WHO's prescription guidance on prescribing skill of midwifery students through role playing** Parang Serveh, Golmakani Nahid, Movaffaq Gebreil, Ja'fari Sani Hossein *Mashhad University of Medical Sciences,Mashhad, Iran*
PTL 22	**Increase in amount of basic knowledge and eagerness towards further studies in beginners self-studying the basic level of "Step-By-Step study of human life sciences"** Shibuya and Yamashita *Kagawa Nutrition University, Sakado, Japan*
PTL 23	**Medical students learning ethical values: Cross-cultural discussion on a web forum** Ruri Ashida[1], Sheba D Mani[2], Nurjahan M Ibrahim[2] [1]*Tokyo Medical University, Japan* [2]*International Medical University, Kuala Lumpur, Malaysia*
PTL 24	**Learning to teach using student selected components to develop teaching skills in medical students** Mary Fleming, Peter Cantillon and Gerard Flaherty *National University of Ireland, Galway, Ireland*
PTL 25	**Effective delivery of Pharmacology for undergraduate Pharmacy education: IIUM experience** Kyi Kyi Tha *International Islamic University Malaysia, Kuantan, Malaysia*
PTL 26	**Learning styles of 1st year medical students** Shilpa Murthy *MAHSA University College, Kuala Lumpur, Malaysia*
PTL 27	**What is the best method of presence-absence in medical students of Jahrom University Of Medical Sciences?** Rasekh Jahromi Athar, Karami M.Y and Amanat A, A *Jahrom University of Medical Sciences, Jahrom, Iran*
PTL 28	**Learning health promotion: A practical approach** Deepani Siriwardhana[1], Manuj Weerasinghe[2] [1]*Rajarata University of Sri Lanka* [2]*University of Colombo, Sri Lanka*
PTL 29	**The evolution of comparative hominid anatomy : Utility of a web-based tool.** [1]SP Khoo, [1]Z Ali, [1]Z Ibrahim, [1]OH Bayati, [2]E Khoo and [1]CG Toh. [1]*International Medical University, Kuala Lumpur, Malaysia* [2]*University of Toronto, Canada*
PTL 30	**Blended learning: Does it answer problems in medical education today?** R. B. Marasinghe[1], C. Stephens[2], P. Abeykoon[3] and S. Edirippulige[4]. [1]*University of Sri Jayewardenepura. Sri Lanka.* [2]*University of Southampton. United Kingdom.* [3]*World Health Organization, Sri Lanka.* [4]*University of Queensland, Australia*

Poster : Teaching / Learning	
Code No	**Title**
PTL 31	**Learning efficacy between electronic versus printed reading material amongst medical students - A randomized controlled experiment.** Chee-Kidd, Chiu, Pey-Yih, Ng, Siao-Wei, Loy, Jian-Ming,Tan and Wei-Sheng,Tan *International Medical University, Seremban, Malaysia*
PTL 32	**The development of a cardiovascular system portfolio: Challenges faced and lessons learnt** Perera YS, Ranasinghe P, Constantine GR *University of Colombo, Colombo, Sri Lanka*
PTL 33	**Cooperative teaching: a new method in theoretical teaching** Zarshenas L , Momeni danaei Sh, Oshagh M, Omidkhoda SM *Shiraz University of Medical Sciences, Shiraz, Iran*
PTL 34	**The effect of simulation on students' knowledge and performance** Leili Mosalanejad *Jahrom University of Medical Sciences and Health Sciences, Jahrom, Iran*
PTL 35	**Reflective writing for medical students: A preliminary study in IMU** Sheba DMani, Hematram Yadav and Amirthalingam Sasikala Devi *International Medical University, Kuala Lumpur*
PTL 36	**The pilot study of the first year: Doctor-Patient communication module** Erfen G. Suwangto, Ratnawati Linarto, Elisabeth Rukmini *School Medicine Atma Jaya Catholic University, Indonesia*
PTL 37	**Building specific competency as doctor with high moral and Islamic values in Faculty of Medicine, Muhammadiyah University Palembang** Arsyad KM, Ariadi P, Fitria W, Helyadi *Muhammadiyah University Palembang, Palembang, Indonesia*
PTL 38	**Building communication skills and apprehensiveness on health problem in community through Autonomous Student Project in Faculty of Medicine, Muhammadiyah University Palembang** Irfannuddin M, Arsyad KM, Rosita Y *Muhammadiyah University Palembang, Palembang, Indonesia*
PTL 39	**A comparing study of face-to-face and video based education on adherence hemodialysis patients** Hasanzadeh F , Shamsoddini S , Karimi Moonaghi H, Emamimoghadam Z ,Gazrani A *Mashhad Nursing and Midwifery School, Masshad, Iran*
PTL 40	**Medical student's perspective about role plays as a teaching strategy in Community Medicine** Iram Manzoor *LMDC, Lahore, Pakistan*
PTL 41	**An observation of the teaching role of clinicians and basic scientists during early year of a revised undergraduate medical curriculum – The Sultan Qaboos University Experience!** Ibrahim M Inuwa. *University, Muscat. Sultanate of Oman*
PTL 42	**Perceptions and experiences in learning anatomy among Sri Lanka Dental students** Chantha Jayawardena *University of Peradeniya, Peradeniya, Sri Lanka*

Poster : Teaching / Learning	
Code No	**Title**
PTL 43	**Learning approaches of first year Sri Lanka dental students** Chantha Jayawardena, Thushari Hewapathirana, Shayama Bannaheka, Sajeew Ariyasinghe, Dammika Ihalagedera *University of Peradeniya, Peradeniya, Sri Lanka*
PTL 44	**Assessment of IMU students' communications skills in breaking bad news: Analysis of the Semester 9 OSCE examination** Sangeetha Poovaneswaran *International Medical University, Kuala Lumpur, Malaysia*
PTL 45	**Competency based skills: Traditional or virtual education?** Leili Mosalanejad, Sakine Shahsavari and Mehdi Dastpak *Jahrom University of Medical Science, Jahrom, Iran*
PTL 46	**Teaching scenario with a role play – "Wrong followed by Right" Can that be more effective for training management of clinical emergencies in medicine?** Pinto MVG, Weerasinghe WNL, Thenuwara GB, Weerabahu WMSK and Dunukearachchi SU *University of Peradeniya, Peradeniya, Sri Lanka*
PTL 47	**Retention rates of ACLS Skills in 3rd year medical students** Dawn M Schocken *University of South Florida College of Medicine, US*
PTL 48	**Effectiveness of using mind maps in learning vitamins** Dr.Ashakiran , Dr.Krishna Murthy, Dr.Prabhavathi, Dr.Ganesh, Dr. Deepthi *Sri Devaraj Urs Medical College, Kolar, India*
PTL 49	**Effectiveness comparison between Computer Based Learning (CBL) and lecture as instructional media in teaching bioethics** Yoyo Suhoyo, Ova Emilia, Tridjoko Hadianto *Universitas Gadjah Mada, Yogyarkata, Indonesia*
PTL 50	**Structured school visit health programmes – The dental students' perception** Shahid Mitha *International Medical University, Kuala Lumpur, Malaysia*
PTL 51	**A blended educational program and its psychological effects on the students** Mosalanejad L[1], Alipor A[2], Zandi B[2], Zare H[2], Shobeiri SM[2] [1]*Jahrom University of Medical Sciences, Jahrom, Iran.* [2]*Payamnoor University, Tehran, Iran.*
PTL 52	**The outcome of use of an interactive distance learning teaching module by students before entry to the medical faculty** Warnakula Kusum De Abrew, K, Wijesundera, S, Wijayadharmadasa, S, Corea, E and Peiris, S *University of Colombo, Colombo, Sri Lanka*
PTL 53	**Combined training of the theory by team members teaching design (TMTD) and lecture method on learning and satisfaction of nursing students** Samira Ebrahimzadeh Zagami and Nahid Jahani *Mashhad University of Medical Sciences, Mashhad, Iran*
PTL 54	**Experiences of developing a Case Based Learning module for a faculty development programme at Manipal University.** C.V.Raghuveer[1], Vasudha Devi[2],Barathi Subramaniam[3], Reem Rachel Abraham[4], Vinod Pallath[5], Ganesh Kamath[6]. *Melaka Manipal Medical College, Melaka, Malaysia*

Poster : Teaching / Learning	
Code No	**Title**
PTL 55	**Association of personality and learning styles in first year medical students** Soon Siew Choo, Shilpa Murthy and Sarmishtha Ghosh *MAHSA University College,Kuala Lumpur, Malaysia*
PTL 56	**Learning case history assessment skills using 'Standardized Patients' in comparison with didactical teaching: Students' perception** Poojee Sudhapalli, Mukesh kumar Sharma, Rajesh.V, Shabaz Mohiuddin.G, Surulivel Rajan.M *Manipal University, Manipal, India*
PTL 57	**Computer assisted learning (Cal) methods in experimental pharmacalogy: challenges on integration into Medical Education** Chidambaram Kumarappan, Senthil Rajan Dharmalingam, Kingston Rajiiah, Sheba David, Jestin Chellian *International Medical University, Kuala Lumpur, Malaysia*
PTL 58	**Evaluating the effect of using multimedia compact disk on the education of addiction prevention course to the second year medical students of Shiraz University of Medical School (SUMS)** Hossein Malekzadeh, Alireza Khaledi, Elahe Ghafar, Seyed Fakhri Mohagheghzahed, Kasra Namvar *Shiraz University of Medical Sciences, Shiraz, Iran*
PTL 59	**The wired and wireless lives of medical students at Chulalongkorn University: Elucidating common beliefs** Thanyavi Chinsuwan, Nitee Ratprasatporn, Supachoke Benjamungkalarak, Danai Wangsaturaka *Chulalongkorn University, Bangkok,Thailand*
PTL 60	**Is AIR critical? : Students' perception on an assigned independent reading topic** Nyunt Wai *The International Medical University (IMU), Kuala Lumpur, Malaysia*
PTL 61	**The Doctor : An old movie but never out of date at discussing 'Doctoring'** Young Mee Lee and Meyoung-Kon Kim *Korea University College of Medicine, Korea*
PTL 62	**Standardized blended interactive e-learning in surgery course** Ayman Hossny ElGadaa, Mohammed Saqr *Qassim University, Al-Qassim, Saudi Arabia*
PTL 63	**Glycemia and learning in students from Universidad Peruana Los Andes Huancayo – Peru** Mg Tito Ortega E *Universidad Peruana Los Andes Huancayo, Junin, Peru.*
PTL 64	**Student perceptions of interprofessional learning – A survey from the second project on interprofessional learning at the International Medical University.** Benny Efendie[1], David W K Chong[2], Kim KuanTey[1], Sangeetha Poovaneswaran[3], Siang Tong Kew[3], Keen Sang Tai [4], Esha Das Gupta[3] and Raymond Peterson[5] *[1]SEGI University College, Selangor, Malaysia* *[2]Monash University Sunway Campus, Selangor, Malaysia* *[3]International Medical University, Seremban, Malaysia* *[4]Columbia Asia Hospital, Kuala Lumpur, Malaysia* *[5]The University of Adelaide, Adelaide, Australia*

Poster : Others	
Code No	**Title**
PO 1	**Decreasing Women Corporal, Incorporeal, & Psychic Consequences Of Pre-Menses Syndrome (PMS) Through An Self-Regulation & Coping Skills Program** Zahraa Rabii[1], Asmaa Rabii[1], Elhaam Fakhaari[2] *Kuhsar Boulevard, Shahran, Tehran, Iran[1]* *Alzahra University, Tehran, Iran[2]*
PO 2	**Teaching racial understanding to medical students** Abdul Rashid K[1], Sapna SP[2] and Narayan KA[3] *[1]Penang Medical College, Malaysia* *[2]Acms, Bertam, Malaysia* *[3]Aimst University, Malaysia*
PO 3	**Medical student's personality toward personality measurement** Soraya J Kaewpitoon *Suranaree University of Technology, Nakhon Ratchsima, Thailand*
PO 4	**On the attitudes of the first year medical students in 2010 towards the filed of study Medicine and its career prospects at Shiraz University of Medical Sciences** Nikseresht, Sadra. Samadi, Arash. Neamatollahi, Parastoo. *Shiraz University of Medical Sciences, Shiraz, Iran*
PO 5	**Students' motivation in medical school, Suranaree University of Technology** Soraya Kaewpitoon, Noknoi Sripho, Karakad Ratkerepan, Keratijanissta Hongdee, Lumpan Boonpa, Youvaman Ratkerepan, and Natthawut Kaewpitoon *Suranaree University of Technology, Suranaree, Thailand*
PO 6	**Occupational risk for blood-borne infection among medical, dentistry and nursing students in Indonesian Teaching Hospital** Sari SYI[1], Afriandi I[1], Raksanagara AS[1], De Schryver A[2], Meheus A[2] *[1]Padjadjaran University, Bandung, Indonesia* *[2]Antwerp University, Antwerp, Belgium*
PO 7	**Hepatitis B Vaccination in health care workers and students in a teaching hospital in developing country** Sri Yusnita Irda Sari[1], Ardini Raksanagara[1], Irvan Afriandi[1], Soehartinah Kramadibrata Antono[2], Antoon De Schryver[3], Andre Meheus[3] *[1]Padjadjaran University, Bandung, Indonesia* *[2]Hasan Sadikin Hospital, Bandung, Indonesia* *[3]Antwerp University, Antwerp, Belgium*
PO 8	**Relationship between use of Internet with research and educational activities** Shiva Beigizadeh *Jahrom University of Medical Sciences, Jahrom, Iran*
PO 9	**Personal characters and educational stressors in probated and non-probated students** Reyhaneh Rouhi *Jahrom University of Medical Sciences, Jahrom, Iran*
PO 10	**The effect of BLOOM empowerment model on life skills promotion in girl student grade 3 in Jahrom (2009-10)** Solhi Mahnaz[1], Sahrayyan Maryam[2], Haghani Hamid[1], Beagizadeh Shiva[2] *[1]Tehran University of Medical Sciences, Tehran, Iran* *[2]Jahrom University of Medical Sciences, Jahrom, Iran*
PO 11	**Using tutorial as a learning strategy to enhance mothers' behaviour in under-five children nutrition rearing: A Community-Based Educational Research to test the nutrition rearing model** Sri Umijati *Airlangga University, Surabaya, Indonesia*

Poster : Others	
Code No	**Title**
PO 12	**Self confidence, academic performance and learning style; Do they integrate?** Mohd Nasir Bin Mat Nor, Nordin B. Simbak, Ahmad Zubaidi, Muralidhara *University Sultan Zianal Abidin, Kuala Terengganu, Malaysia*
PO 13	**Developing drivers of curriculum change within a traditional medical school resistant to change** Avindra Jayawardene, Vasantha Devasiri *University of Ruhuna, Ruhuna, Sri Lanka*
PO 14	**Comparison of admission criteria between military medical students and civilian medical students in Sri Lanka** Sujeewa Amarasena *General Sir John Kotelawala Defence University, Sri Lanka*
PO 15	**On the attitude of nursing and midwifery school students towards education and performing BLS** Abdolrahimi, Mehdi. Neamatollahi, Parastoo. Maghsoudi, Reza. and Hasani, Hamed. *Shiraz Medical University, Shiraz, Iran*
PO 16	**Knowledge on post-operative pain management interventions among adult patients (20-60 Years) at a hospital in Kuala Lumpur, Malaysia** Patricia Matizha, Daphne Foo Tze –Wei and Kang Ker Huang *International Medical University, Kuala Lumpur, Malaysia*
PO 17	**Psychological well- being of undergraduate nursing students in India** [1]Saravanan Coumaravelou and [2]Stephen Babu [1]*International Medical University, Malaysia* [2]*St. Annes Degree College for women, Bangalore, India*
PO 18	**The awareness and effectiveness of "Not-Smoking" campaigns (Kempen Tak Nak)** Ang Chui Munn *International Medical University, Kuala Lumpur, Malaysia*
PO 19	**Status of mental wellbeing among a group of new entrants to a Medical Faculty in Sri Lanka** Wasantha Gunathunga, Shreenika De Silva, Arosha Senanayake, Anushka Seneviratna *Faculty of Medicine, Colombo, Sri Lanka*
PO 20	**Influences on Malaysian pharmacy students' career preferences** Syed Shahzad Hasan[1], David Cong Weng Kwai[1], Keivan Ahmadi[1], Wong Pei Se[1], Ernieda Mohd Hata[2], Muhammad Abdul Hadi[3], Azmi Ahmad Hassali[4], Low Bee Yean[1], Syed Imran Ahmed[1], Benny Efendie[1] [1]*International Medical University, Kuala Lumpur, Malaysia* [2]*Universiti Kebangsaan Malaysia, Kuala Lumpur, Malaysia* [3]*Universiti Tecknologi Mara Selangor, Malaysia* [4]*Universiti Sains Malaysia, Penang, Malaysia*
PO 21	**Neurophobia – Students' and doctors' views** Thushara Matthias, Poorna Nagasinghe and Saman Gunatilake *University of Sri Jayewardenepura, Nugegoda, Sri Lanka*
PO 22	**Increasing quality of life among chronic heart patients through a Multidimensional Program for their companions** Zahraa Rabii, Elhaam Fakhaari, Abaas Dehghany *Alzahra University, Tehran, Iran*
PO 23	**Tweaking community social responsibility towards high impact learning : Dental student perception** Saad A.Khan, Hanan Omar, Liang Lin Seow, Muneer Gohar Babar, Toh Chooi Gait *International Medical University, Kuala Lumpur, Malaysia*

Poster : Others	
Code No	**Title**
PO 24	**Buddy Network – a modified Peer Assisted Learning programme: Year 1 students' previous experience and initial perceptions** Azlin Sa'at @ Yusof, Azura Sharena Yahaya, Kartini Abdullah, Niza Samsudin, Nor Zamzila Abdullah, Nik Nur Fatnoon Nik Yusof. *International Islamic University Malaysia, Pahang, Malaysia*
PO 25	**Prevalence and risk factor of Muscloskeletal Disorders (MSD) among medical and pharmacy students in a Malaysian medical college** Mustafa Ahmed Alshagga[1], Looi Pui Yan[1], Sami Abdo Al-Dubaie[2] *[1]Cyberjaya University College of Medical Sciences (CUCMS), Malaysia* *[2]Management & Science University (MSU), Selangor Malaysia.*
PO 26	**Effect of sex education on preventing HIV in a local male community in Sri Lanka** K.A.S. Jayawardena *University of Peradeniya, Peradeniya, Sri Lanka*
PO 27	**Understanding, perception and self-use of complementary and alternative medicine among Malaysian dentistry students** Muneer Gohar Babar, Syed Shahzad Hasan, Cho Min Naing, Nur Hidayah Binti Hamzah *International Medical University, Kuala Lumpur, Malaysia*
PO 28	**Learning and motivational styles of medical students at Angeles University Foundation-School of Medicine: Implications in teaching and learning process** Rodolfo C. Ng, *Angeles University Foundation Medical Center, Angeles City, Philippines.*
PO 29	**The effect of student extracurricular activity into their Grade Point Average (GPA)** Hidayat EM and Dewi SP *Universitas Padjadjaran, Bandung, Indonesia*
PO 30	**The experience of the committee for students under probation in the College of Medicine and Health Sciences, Sultan Qaboos University (Oman)** Marwan Al- Sharbati and Ali A. Al-Jabri *Sultan Qaboos University, Muscat, Oman*
PO 31	**Student's perspective on the availability of skill practice during their clerkship period** Fundhy Sinar Ikrar Prihatanto and Nancy Margarita Rehatta *Airlangga University, Surabaya, Indonesia*
PO 32	**Medical students' personality toward sixteen personalities measurements** Soraya Kaewpitoon, Waraporn Aoeksoon, Naporn Uengarporn, Seekaow Churproong, Sanong Suksawaeng, Likt Matakul, Pratoomtong Yatoom, Vanich Vanapreuk, and Natthawut Kaewpitoon *Suranaree University of Technology, Suranaree, Thailand*
PO 33	**Life skills needs assessment in female high school students in Jahrom from the viewpoints of students, parents and teachers (2009-10)** Maryam Sahraian *Jahrom University of Medical Sciences and Health Services, Jahrom, Iran*
PO 34	**Role of self efficacy and self concept beliefs in motivation and academic success among paramedical and health students** Nooshin Peyman[1] and Neshat Peyman[2] *[1]Mashhad University of Medical Sciences, Mashhad, Iran* *[2]Azad Islamic University of Iran, Iran*

Poster : Others	
Code No	**Title**
PO 35	**Understanding, perception and self-use of Complementary and Alternative Medicine (CAM) among Malaysian nursing students** Wong Pak Fong, Syed Shahzad Hasan, Muneer Gohar Babar, Cho Min Naing, Nur Hidayah Binti Hamzah and Chew Shou Yong *International Medical University, Kuala Lumpur, Malaysia*
PO 36	**Measuring the motivation of nursing and midwifery students towards selecting their field of study** Zahra Dalir[1], Zahra Shojaeian[2] and Zahra Khodabandehlu[1] *[1]Mashhad University of Medical Sciences, Mashhad,Iran* *[2]Islamic Azad University of Ghouchan Branch, Iran*
PO 37	**Attitude of non-smokers towards smokers among students in a medical school"** Brinnell Caszo[1], Smita Avhad[2], Milind Avhad[2] and Justin Gnanou[1] *[1]UiTM, Shah Alam, Malaysia* *[2]USAIM, Mahe, Seychelles*
PO 38	**Stressors and coping strategies among Baccalaureate nursing students at Shifa College of Nursing Islamabad, Pakistan** Shomail Sikander and Faisal Aziz *Shifa College of Nursing,Islamabad, Iran*

Poster Presentations

Assessment

ABSTRACT NUMBER: PA 1
Evaluation of Objective Structured Clinical Examination (OSCE)

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Introduction
Objective structured clinical examination (OSCE) is a form of multi station examination for clinical subjects first described by Harden et al from Dundee in 1975. It was firstly adopted in North America in a widespread manner. Then, it widely adopted in the UK Sciences for assessment of internal resident from 2006 in medical skill laboratin the 90s. Principally OSCE was done in Mashhad University of Medical ories. OSCE is one of the several examinations that were done for assessment of medical students. The aim of this study is OSCE's evaluation by internal residents who passed this exam.

Methods
This prospective and research study was done at Mashhad University of Medical Sciences, Iran in 2010. 55 internal residents evaluate OSCE through questionnaire. All of them passed successfully this exam. In questionnaire, several items about this exam asked from these students. The answers gathered in the form of data and then analyzed.

Results
This study shows that: 64.8% of internal resident agree with clearness of stations structural content, 59.3% agree with extensive scientific level, 55.8% agree with appropriate training experience and possibility of fair competence.

Conclusion
OSCE has been proposed as a practical tool to both prepare medical students for working with diver's population and to assess their performance across interviewing. On the basis of this research, OSCE is useful and suggested for scientific promotions, gaining experiences and skills.

ABSTRACT NUMBER: PA 2
Improved procedure for building an institutional question bank for high stake entrance exams

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Background
Often the educational institutions are confronted with the problem of paucity of items (MCQs) in the question bank. Several institutions collect sizeable number of items (ranging from 50 to 100 items) from each chairman of the department periodically for the purpose of item banking and their use in high stake entrance examinations. In the capacity of Sub-Dean Exams (2001-2006) the author faced three problems- repetition of items, reappearance of outdated/old items and failing to receive items from some departments.

Methods
A system was created so that the load of preparing items was shared by individual faculty. The target number was kept as low as 5-10 items per faculty per semester. Each faculty was carefully instructed how to write a good MCQ. The process of writing items was made remunerative. We also involved experts from non-teaching departments such as blood bank, lab investigation etc.

Results
Nearly 70 % of 540 faculty responded positively, thus generating approx. 3000 items/per semester. The feedback suggested that the system was appreciated by departments, individual faculty and administration. The yield of good items increased from ~ 35% to 65%. The chances of item leakage became negligible. The system has been running successfully since 2002.

Conclusion
The newly developed procedure generated large pool of items of high quality. The chances of item repetition and inclusion of obsolete items became negligible. The decentralization of item collection with positive reinforcement system worked successfully. This kind of system may serve as model procedure for building up an item bank.

ABSTRACT NUMBER: PA 3
Anxiety level of Universitas Pembangunan Nasional "Veteran" Jakarta medical students when facing assessment in competency-based curriculum.

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Background
Medical education which is held on faculty of medicine is an important component of medical profession. Most of universities have used a new learning method in competency-based curriculum. As the students learn their medical education based on competency-based curriculum, they will face some assessments that they are not achieved before. The anxiety that is felt by students in doing those assessments could interfere their achievement.

Objectives
This study is aimed to recognize the anxiety level of Universitas Pembangunan Nasional (UPN) "Veteran" Jakarta medical students in facing the assessments and to determine whether any different anxiety level exists among

the students based on sex, length of study on UPN, place in which the students are stayed, having best friend, and having extracurricular activity.

Methods
This is a cross sectional study using a questionnaire translated from Westside Test Anxiety Scale. One hundred and forty students participated in this study.

Results
Nearly 2/3 of UPN medical faculty students experience anxiety in various levels when facing assessment, Chi-square test showed no difference of anxiety levels between students based on sex, extracurricular activity, place in which the students stayed, and having a best friend ($p>0.05$), but there were different anxiety levels between the students based on length of study ($p = 0.03$).

Conclusion
Some programs are needed to overcome the anxiety of students when facing the assessment.

Key words

Assessment, competency-based curriculum, anxiety level

ABSTRACT NUMBER: PA 4
Perceptions of medical students towards peer assessments

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Introduction
Peer assessment (PA) is a useful form of assessing the individual student contribution to group activities. The objectives of this study were to find out: (i) the perception of medical students towards PA; (ii) differences in the perception of low and higher achievers; and (iii) differences in the perceptions of males and females.

Methods
Perceptions of 163 second year medical students (55.6% were females) who participated in peer assessments were studied using a pre-tested, self-administered questionnaire. It comprised 22 items, scored on 5-point Likert scale. Students were categorized as low, average and high achievers based on the end of year examination.

Results
None had prior experience in PA. Mean scores of individual students ranged from 1.73 to 4.45; 85.3% scored a mean of ≥3. Scores were not significantly associated with gender ($t=0.072$, $p=0.943$). Average mean score for low and high performers were 3.41 & 3.31 ($t=1.29$, $p=0.196$). High achievers compared to low achievers were not in favour of all members of a group receiving the same mark based on the final product($t=2.36$,$p=0.02$). Compared to high achievers, low achievers more often; requested guidance on PA process ($t=2.42$, $p=0.017$), perceived that they benefitted from PA when the learning requirements and assessment criteria were made explicit ($t=4.52$, $p<0.001$), thought that PA improved the quality of the final product ($t=2.14$, $p=0.034$) and team interaction ($t=2.78$, $p=0.006$).

Conclusions
Medical students had positive perceptions on PA. Low achievers compared to high achievers had positive perceptions and recognized more often the strengths of PA. Although there were a few significant differences of opinion, there was no significant difference in the overall perception of low and higher achievers. There was also no significant difference in the perceptions of males and females.

ABSTRACT NUMBER: PA 5
Correlation between peer assessment and self assessment in group projects.

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Introduction
The ability to assess work of self and others is a core attribute required by doctors and this supports student learning and improves student understanding of the assessment process. Most peer and self assessment correlation studies in literature are confined to written examinations. The objective of this study was to correlate peer and self assessment marks based on a small group field activity.

Methodology
Study population comprised 201(51.7% males 48.3% females) 2nd year medical students who participated in groups, in a field activity during the infectious diseases module. A report and an oral presentation based on the field activity are the products, assessed by tutors. A validated assessment tool with a rating scale (1-5) was used for self and peer assessment of the individual contribution to the group work. Each student was assessed by 8-10 peers in addition to self.

Results
Pearson correlation between overall average peer score and overall self score was 0.17 ($p=0.024$). Among the students who completed self assessment 14.1% ($n=26$) rated themselves lower (Group A) and 29.3% ($n=54$) higher (Group B), compared to their peer ratings. However 56.6 % ($n=104$) rated themselves similar to peers (Group C). The average final cumulative scores received by groups A, B & C at the last end of year examination were 60.61, 56.56 & 56.75 respectively (ANOVA F ratio = 1.68, $p =0.19$). 47.1% of students, who received an average peer score of 5, underestimated their contribution compared to 6.7% of students who received an average peer score of ≤ 4 (X^2 - 37.27, $p < 0.001$).

Discussion
This trend has been observed previously, in relation to summative written examinations where, good students underrate their performance and poor students overrate. This study records a similar trend in relation to group projects. There was no significant difference in academic ability of those who underestimated, overestimated or equally estimated their contribution, compared to peer assessment.

ABSTRACT NUMBER: PA 6

Reliability of peer assessment in undergraduate group projects

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Introduction
Group projects permit students to develop team building skills and greater psychological health. In general, teachers are confident about being able to assess the product of the group work and the group members receive the same grade for the product irrespective of their contribution. The best available mode of assessment of individual contribution to the group activity is through peer assessment. This study aims to estimate the reliability of an undergraduate peer assessment process and analyse the spread of peer ratings.

Methods
Study population comprised 201 (51.7% males and 48.3% females) 2nd year medical students who participated in a group field activity during the infectious diseases module. A report and an oral presentation were the product assessed by tutors. A peer assessment tool was developed which assessed using a 5-point Likert scale, the group process (teamwork), task process (contribution to final product) and overall performance through a global rating. Each student was assessed by 8-10 peers. The reliability of peer ratings were analysed using multivariate generalisability analysis with GENOVA statistical package. The spread of within group ratings were estimated using standard deviation.

Results
61 student ratings that had no variation were excluded from analysis. The generalisability coefficient was 0.94 with a standard error of measurement of 0.015. The decision studies showed that even with 5 raters a composite generalisability coefficient of 0.9 could be achieved. Student ratings per group had a standard deviation ranging from 0.32 to 1.67.

Discussion
The high g-coefficient and the low standard error of measurement indicate that the reliability of the tool is excellent. Five raters achieving a 0.9 reliability places this tool ahead of many such tools in the literature. The relatively wide standard deviation indicates that the raters have tried to discriminate between different student contributions.

ABSTRACT NUMBER: PA 7

Using Script Concordance Testing (SCT) as a new modality of assessment for graduate entry medical students – A pilot study

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Background
SCT is a relatively new modality of assessment in medical education. By presenting a clinical scenario, additional pieces of information are given and the students are asked to assess whether this information increases or decreases the probability of the proposed diagnosis. This reflects the clinician's everyday real-world script determination. It tests the clinical reasoning and problem solving ability and how they apply their learned knowledge in the context of uncertainty. The student's response is compared to a panel of clinicians. Studies have demonstrated that the scores correlate with the level of training and predict future performance on clinical reasoning.

Methods
The School of Medicine, Sydney, University of Notre Dame examined a cohort of 107 graduate-entry Year 3 medical students using 20 SCT questions in the formative midyear examination. Their answers were compared with the panel of 15 general practitioners (clinical tutors). This pilot study also correlates the medical students' scores with their Year 2 summative performance.

Results
The mean and standard deviation (SD) of the students' and panel's scores were 15.1/20 (SD 2.2) and 16.9/20 (SD 1.6) respectively. The correlation with Year 2 summative written and total scores were 0.44 and 0.38 respectively ($p<0.001$). The student experience has been positive, particularly in terms of testing their clinical reasoning.

Conclusion
SCT is a new modality of assessment which considers the concordance of clinical thinking and decision making between the students and the panel. The pilot study showed a significant correlation with other assessment scores. Further studies to evaluate the correlation between SCT and clinical reasoning components of the clinical OSCE examination would be very useful.

ABSTRACT NUMBER: PA 8

How effective is an Objective Structured Practical Exam (OSPE) as a tool to assess basic science knowledge of medical undergraduates.

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Background
The OSPE is known as an effective tool to test laboratory skills in medical undergraduates[1].It has also been described as an effective tool to discriminate between good and poor performers[2]. It can be structured objectively to test every aspect of laboratory teaching[3].

The objective of this exercise was to draw up a framework (FW) for an excellent assessment tool and to compare an OSPE type examination in basic sciences with this framework in order to measure its efficacy.

Methodology
Guidelines for an Ideal OSPE were drawn up by consulting Experts opinion, Medical Education Principles on Assessments and the literature. These included Justice, Validity, Reliability, Utility etc. This was used as the point of reference.

Case study method was selected to deal with complex data. Three approaches were used to collect data.

1. Direct observation of the course objectives, curricular content, examination and OSPE stations as the exam was administered to the students.
2. A self administered questionnaire (SAQ) to obtain specific inputs regarding the OSPE from Students and examiners.
3. Semi structured interviews with Examiners and Medical Undergraduates to obtain perceptions regarding OSPE's

An OSPE in Physiology administered for the 2nd MBBS examination was selected for the case study.

Data were analyzed using SPSS descriptive statistics and grounded theory.

Results
Direct observation revealed that the OSPE was well structured and included core knowledge as well as discriminative questions. The questions were within the specified learning objectives and were targeted at assessing practical knowledge components. There were more questions from certain units causing the sampling of curriculum to be skewed in favor of those units.

Analysis of the questionnaire proved that the OSPE was well accepted by both students and staff members. Both groups had the same kind of perceptions regarding OSPE.

Many of those who were interviewed spoke highly in favour of OSPE. It was preferred as a better assessment tool than MCQ or Essay.

However some students stated that they became too excited and nervous which hindered their performance. Comparison with the FW revealed that OSPE met most of the requirements.

ABSTRACT NUMBER: PA 9
On the attitude of students of Shiraz University of Medical Sciences the modern method of e-assessment in the form of e-portfolio

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Introduction
The rapid growth of computer and virtual environments in medical education impresses all fields of medical education widely. On the other hand, evaluation students is of the most challenging field of medical education which can be improved and completed by using technology like E-portfolio. In this study we decided to evaluate strength and weakness points considering this modern designed method on students' point of view.

Method and material
Designing the mentioned E-portfolio was done by the experts of Education Development center including: workshop evaluation by the students, students evaluating their learning and teachers evaluating student's learning. E-portfolio was uploaded on the weblog. Students were made to fill out and sent their E-portfolio via e-mail. Finally everyday a post named as workshop title was uploaded on the weblog in order to receive the students' comment at the end of the day. Students declared their view point regarding the evaluation method on the weblog at the end of the course.

Result
According to student's comments, advantages related to this method are: having no deadline determination for sending and receiving E-portfolio, lack of special place need to be hold, easy access to the scientific resources while completing the E-portfolio and also easy way to exchange of opinions with their counterparts. In contrast weak points of this method were problems in uploading text because of limited internet speed, using unsuitable software and uncertainty about transferring and evaluating of the portfolio by the responsible authorities.

Conclusion
The correct use of E-assessment in medical education is one of the most important goals of education development, and this methodology is designed to accommodate this goal. It seems that optimal use of this technology will go a long way toward improving medical education in the country.

ABSTRACT NUMBER: PA 10
Students' perception on the first implemented Objective Structured Clinical Examination (OSCE) mock as a baseline for improvements in the final OSCE

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Background
Clinical exams have always been at the centre of attraction in medical schools. However only recently has the OSCE gained popularity as the ultimate solution for subjectivity in clinical exams in Sudan. Al Neelain University used to perform clinical exams but OSCE in its ideal form was never conducted. This year the university was able to implement the first real OSCE for clinical skill assessment. Students' perception on the exam was important and was taken as a baseline for improvements in the real OSCE performed at the end of the year. The general objective was to identify the problems associated with the exam. The specific objectives were to identify the major weakness of the OSCE questions/station; to identify problems with atmosphere; to identify organisation problems; to describe problems with simulated/real patients and to identify students' insight on their own academic performance.

Methods
Firstly, a demonstration OSCE was performed for students initially demonstrate to the exam methodology, followed by a mock exam. The mock exam was performed so as to expose the students to real OSCE situations before the final exam. A questionnaire was designed and administered to the final year students after the OSCE mock. The questionnaire had closed ended questions, answers were rated on a scale from 1 - 5 (1 for strongly disagree, & 5 for strongly agree). The questionnaire evaluated the following domains: student perception of the OSCE questions/ stations; student perception of organization; student perception of atmosphere; student perception of simulated & real patients; student perception of self academic performance.

Results
Results showed that 73.4% of students agreed that they needed more time at each station. 51.7% were unsure if the setting and context at each station felt authentic (real). 63.4% agreed that the exam was very stressful. 38.3% found the experience disappointing and 38.3% were neutral about the experience. 60% agreed that real patients got irritated during the exam. 51.7% agreed that examiners got irritated when students asked questions and 50% of students agreed that examiners were intimidating. 41.7% disagreed that they have been well prepared by the work done in class for OSCE while 28.3% were neutral on the issue. The mean values for each section was calculated and the results interpreted on a scale of excellent, good, average,

poor and very poor. OSCE questions/stations evaluation and perception of organisation was good. Perception of atmosphere was also good. Perception of simulated & real patients was average. Perception of examiners was good. Perception of academic self-performance was average.

Conclusion
Time at each station was inadequate, setting and context at each station did not feel real; exam was very stressful and experience was disappointing. Real patients got irritated during the exam; examiners got irritated when students asked questions and were intimidating. Students did not feel well prepared for the OSCE. The mean values showed that perception of OSCE questions/stations, organisation, atmosphere and examiners was good. Perception of simulated & real patients and academic self-performance was average.

Recommendations
Time at each station should be increased if possible, or implementation of linked stations and double stations so as to increase time at each station and decrease stress in the environment by reassurance of students. Increased incentives should be offered to real patients, and also increase the number of patients taking part in the exam so as to allow rotation of real patients in order to reduce the number of students examining one patient and therefore enhance patient endurance of exam conditions. Real patients should be replaced where possible with simulated patients. Examiners should be trained to be friendly and student practice and training on the OSCE will enhance student preparation for the real exam.

ABSTRACT NUMBER: PA 11
Prescribing analysis assignment for 1st year students: Lesson learnt

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Background
Appropriate use of drugs is one of essential element in achieving quality of health and medical care for patients and the community. Ensuring that the correct drug is given to the correct patient is a high priority for all health professionals. Rational Medicine Use (RMU) block was one of 24 blocks in the Medical Faculty Islamic University of Indonesia (UII) curriculum. The block objectives are for understanding the importance of rational use of drugs and community problems due to irrational prescribing, implementing the principles of rational drug use and therapeutic decision making. This block is conducted for 4 weeks in 2nd semester. Learning methods for this block are small group discussions, clinical skills practice, expert lectures, and prescribing analysis assignment. The aim of this study is to evaluate the prescribing analysis' assignment for students taking RMU block.

Methods
Rational prescribing skill is learnt twice in a small group training (10-11 students/group with an instructor). As assignment of the block, each student receives one medical case scenario that needs to be analyzed, especially about the appropriateness of the treatment and prescription given on each scenario. Therefore students practice critical thinking which was taught in 1st semester. The students are also asked to give the rational prescriptions for the scenario given.

Results
Three hundred and eight students (n=328) completed their prescribing assignments. The score average was 80, 48. Two hundred students (61%) attained a score of 80 or higher. Case selection was based on the students' prior knowledge, sufficiency skills practice are some of essential factors that may support students complete this assignment well. However, 15, 85% students failed (score achievement is 60 or less). Students' problem is on giving the reason why the prescription is not appropriate for the case.

Conclusion
Prescribing analysis' assignment can be well trained for 1st year students. Critical thinking about rational prescribing must be enforced in next blocks.

ABSTRACT NUMBER: PA 12
Evaluation of midwifery students' life saving skills with Objective Structure Clinical Examination

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Background
Assessing of life saving skills in midwifery students has an important role in educational quality promotion. The purpose of this study is evaluation of life saving skills in midwifery students using objective structured clinical examination (OSCE).

Methods
A descriptive study was developed in which 19 four-year midwifery students completed the testing. The integrated OSCE consisted of 12 different stations including history taking, neonatal resuscitation, postpartum hemorrhage, preeclampsia, heart disease in labor, post term pregnancy etc. The raters recorded each examinee's performance using a predefined checklist. The minimum and maximum number was 0 and 190, respectively.

Results
This exam had good psychometric properties including construct validity, inter-rater reliability (correlation=.96), and internal reliability (Cronbach's=.58). The minimum mark of this examination that has obtained by students was 110 and the maximum one is 143.5. The average was 127±9.5.

Conclusion
It appears that OSCE examination offers an attractive option for assessment practitioner skills, because it is not possible to assess some of the life saving skills by traditional evaluation methods alone.

Keywords
OSCE, Midwifery students, lifesaving skills

ABSTRACT NUMBER: PA 13

Changes of medical student's clinical performance ability according to the number of Clinical Performance Examination (CPX)

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Background
Many medical schools have enforced training related clinical performance and assessment such as OSCE, CPX to improve medical student's clinical performance ability. Despite these educational challenges, few have attempted to address effect of training and assessment on clinical performance. This study investigated whether training and assessment on clinical performance (CP) to improve medical student's clinical performance ability and to differentiate changes of students' CP ability according to their CP level.

Methods
The subjects comprised 101 fourth year medical students who participated CPX three times from December 2009 to September 2010. Each CPX examination consist of 3~9 cases that represent common problem. CPX were scored in three area history taking, physical exam and relationship by stimulated patients. Participants were classified according to their CP ability into three levels: high (N=30), medium (N=40), and low (N=31). Statistical analysis used repeated ANOVA with a P value of less than .01 considered significant.

Results
Both history taking and physical examination demonstrated significant improvement, while their relationship declines over the 3 times CPX. Additionally Student's score of all level demonstrated continuously improvement in history taking and physical examination, while students of high and low level was seen a sharp decline in relationship.

Conclusion
Improvement in history taking can detect accumulation of clinical knowledge and clinical exposures. Also improvement of physical examination is impacted by repeated practice to similar or identical cases and receiving feedback. The patient-doctor relationship deteriorates might be effect of negative experience in clerkship. We hope that these papers have contributed curricular implication.

ABSTRACT NUMBER: PA 14

The problem with negatively worded MCQs

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Background
Most MCQ drafting guidelines explicitly instruct writers to 'word stems positively', or at least to 'minimise' the use of negatively-worded stems. This is usually justified by the concern that the negative orientation of the question may be missed – often by high-ability students; hence the convention of emphasising the negatives whenever they are used in the stem. Yet it would appear, judging from many of the examinations set by university departments and professional bodies (eg Downing 2005, Jozefowicz et al 2002), that the use of negatively worded MCQs remains commonplace in medical, bioscience and health professional courses.

Description
This paper will review the literature on this issue, and consider the main arguments offered for and against the use of negatively-worded MCQs. It will consider factors which might account for the enduring appeal of negatively-oriented questions, despite awareness of the guidelines to avoid them. The arguments presented will be supported by examples of questions, and relevant statistical properties, to illustrate some of the problems with using negatively-worded MCQs.

Conclusion/Recommendations
In the absence of a clear and persuasive rationale, what may seem self-evident to educationalists can appear unnecessarily pedantic to academics. But the issues surrounding the use of negatively-worded MCQs are also more complex than usually acknowledged, with some conflicting evidence and other factors which might 'encourage' teachers to utilise them. Ultimately, the guideline to avoid negatively-worded items needs to be supported with reasoned arguments, if it is to influence the practice of item development in the medical education context.

ABSTRACT NUMBER: PA 15

Practical experience of conducting Multi-Source Feedback (MSF) in midwifery students of Mashhad Faculty of Nursing and Midwifery

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Background
Multi-source feedback in UK medical education has grown in significance in recent years with the introduction of compulsory MSF in the Foundation Program portfolio, and its importance is increasing in the worldwide, nowadays. Therefore we conducted Multi-source feedback as a clinical evaluation method for undergraduate midwifery students to determine their communication and professionalism.

Methods
33 undergraduate midwifery students participated in this descriptive study in academic hospitals of Mashhad University of Medical Sciences. The students were be evaluated by at least 2 patients and some of the tutor, assistant, midwife, colleague, self-evaluation, crew and secretary groups in labor ward and then given feedback report with keeping confidentiality.2 feedback forms were used:1 for patients who completed it through interview, and another for other evaluators who were mentioned above. They were approved by Content Validity Index (CVI= 0.8) and Cronbach's alpha coefficient=0.91.

Results
Overall 421 evaluation forms were returned (67 patients and 40 tutors, 14 assistants, 56 midwives, 130 colleages, 33 self-evaluation, 8 secretaries, 73 crews), which for each student 11-15 forms were completed. Total mean score of rater groups include (of 10): patients 9.6±0.1, tutors 7.8, assistants 8.2, midwives 8.4, colleagues 8.7, self-evaluation 8.7, secretaries 9.3. Mean scores between patients and other rater groups correlated positively but non-significant (r=0.289, P=0.103). In addition to the ratings, some positive and negative points in students, manners were mentioned.

Conclusion
The results indicate that midwifery students perform well in communication and professionalism from the patients, superior individuals, colleagues and lower rank people's point of view. Among these raters, patients rated students better than others and excellent. In reverse, the tutors' evaluation was the least. One reason for this finding can be the more critical attitude of this group. Lastly we suggest this clinical evaluation for communication domain in other fields and other majors to determine positive and negative manners of students and even medical employees.

ABSTRACT NUMBER: PA 16
Do the current admission criteria predict the academic performance of nursing undergraduates?

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Background
The BSc Nursing programme in the University of Sri Jayewardenepura commenced in 2005. This was the first Nursing Degree course offered by a University in Sri Lanka. About 25 students are admitted each year based on the Z- score obtained at the GCE (advance level) examination. This study was conducted to assess whether the current entry criteria for the nursing degree programme predict the academic performance of the students.

Methods
A descriptive study was conducted on students admitted to the BSc Nursing Programme at the Faculty of Medical Sciences from 2005 to 2007. Demographics and examination data were obtained from the Faculty records. The association between total scores at the 1st and 2nd examinations (TS1 and TS2) and the z score was analyzed using Minitab14. "Improvement" was taken as TS2-TS1.Pearson and Chi square test was used to determine statistical significance.

Results
Of the 67 students, 67.2% were females and 32.8% were males. The mean z-score was 1.5. The medium of instruction before entry was Sinhala in 89.5% and Tamil in 9.4%. The mean age at entry was 259 months (SD± 8.16).

The pass rate at the first attempt improved from 52.4% in the 1st examination to 73% in the 2nd examination. Of the students successful in the 1st examination 60% and at the 2nd examination 86.7% were females. There was a significant difference in the mean z scores of the students who passed (1.51) and failed (1.36) the 1st examination (p= 0.024). Thirty seven students (74%) showed positive improvement and they had a lower mean z score 1.428(SD ± 0.268) when compared to those (13) who showed no improvement 1.561(SD ± 0.158) (p= 0.039).

Conclusion
The academic performance BSc nursing students in the 1st examination correlate with their z scores but the improvement occurred independent of the z-score.

ABSTRACT NUMBER: PA 17
Are IMU students' knowledge and skills on breast cancer adequate? Analysis of Semester 9 examination

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Background
The incidence of cancer is on the rise. The National Cancer Registry reported that 67,792 new cancer cases were diagnosed in Peninsular Malaysia alone from 2003 to 2005. Of this number, 11952 were of breast cancer, making it the commonest cancer in women. At International Medical University, students are exposed to oncology training in all disciplines during the clinical phase of their training. Specifically relating to breast cancer, students attend combined multidisciplinary breast cancer clinics and are exposed to both surgical and non-surgical aspects of management. Also they have bed-side teaching relating to cancer management.

Methods
A retrospective analysis was carried out on the multiple essay questions (MEQ) on breast cancer which was set for the penultimate exam for final year students in July 2010. Three forms of analysis were done. Firstly, the complexity of the questions was graded using Bloom's taxonomy. Secondly, using the comprehensive checklist, 'The Ideal Oncology Curriculum' created by the Cancer Council of Australia, the questions were assessed to see if all key components were tested. Thirdly, the students' results were analyzed using SPSS v17.

Results
The question assessed various levels of the cognitive domain of Bloom's Taxonomy. Components assessed based on the checklist were public health, cancer biology, patient management, diagnosis and treatment. Communication skills, ethics and clinical experience could not be directly assessed as it was a written paper. Based on the cognitive domain of Bloom's Taxonomy and the checklist from 'The Ideal Oncology Curriculum', the students results revealed that when higher levels of the cognitive domain was tested they performed less well. Analysis using box plot for questions assessing higher level of cognitive domain suggested discrimination between good and weak students.

Conclusion
The results suggest that the level of complexity of the question to assess competence in breast cancer management is appropriate as reflected in the results. However, they performed less well when higher levels of cognitive domain were tested suggesting that perhaps more clinical exposure of breast cancer management may be warranted.

ABSTRACT NUMBER: PA 18
A preliminary study on the effectiveness of e-formative assessment on academic performance of pharmacy students

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Background
Educational experts recommend the use of formative assessment in addition to summative assessment. The

purpose of e-formative assessment is to provide immediate feedback on students learning process. The aim of this study is to evaluate the effectiveness of e-formative assessment in enhancing student's performance in summative examination.

Methods
Data for this study was drawn from the summative scores of two intakes of BP harm students (Intake A and B). E-Formative assessment was not available for Intake A, whereas this was introduced to Intake B in selected modules, i.e. Biological Science and General Chemistry in Semester 1 and Cardiovascular system in Semester 2. The summative scores of the two intakes of students were analyzed using SPSS 11.5. Student's t-test was used to determine the significant difference between the performances of the two intakes of students in the summative examinations.

Results
In the Biological Science module, there is no significant difference between the mean scores of the two intakes, whereas the high achievers obtained significantly higher scores with the introduction of e-formative assessment. In the General chemistry module, e-formative assessment has brought about positive influence on the overall performance of the class as well as the high and low achievers. However, in the Cardiovascular System module, the findings indicate that e-formative assessment has a negative influence on the overall performance of the class as well as the high and low achievers.

Conclusion
This study has implicated that e-formative assessment may enhance students' academic performance. The findings will help to improve the implementation of e-formative assessment in the BP harm programme and further strengthen its role in enhancing student's academic performance.

ABSTRACT NUMBER: PA 19
Evaluation of resident communication skills by direct observation in Shiraz University of Medical Sciences

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Introduction
Communication skills are an essential part of residency training program. Effective communication improves patient care and satisfaction, and lead to increase health outcomes. There are several methods for assessing communication skills in medical school, and multiple tools for direct observation are available, but direct observation of medical trainees with actual patients is important for assessing the communication skills.

Objective
The objective of this study was determination ratings of communication skills of internal medicine residents by medical students as observer.

Methods
Thirty internal medicine residents from Shiraz University of medical sciences were evaluated by medical students during their first year of training by a valid and reliable questionnaire (checklist 1,2,3,4 score) based on Kalamazoo statements. Each resident on each item was evaluated by medical students five times. The data analyses were obtained by using SPSS v 15 to identify frequency, distributions and mean.

Results
The results revealed that the total average score of internal residents' communication skills was 3.25+ 0.46 in 5 observations which is acceptable according to experts' judgment. Interrater reliability of finding was (65%) by Pierson's correlation. The mean rate of agreement on enough communication skills was determined on item of physician and patient relationship (56%), Understands patient's Perspective of illness (63%), being sensitive and empathetic (58%), respecting confidentiality (69%), demonstrating integrity (72%), and Shares Information. (67%). anticipating educational needs (49%) Reaches Agreement on problems and plans effectively (63%).

Conclusion
The conclusions of this study show that communication skills in internal medicine residents from Shiraz University of medical sciences were in an acceptable level , and reliability of student's observation is near the optimal level. Resident evaluation procedures by additional research are needed to determine the actual resident competency in communication skills.

ABSTRACT NUMBER: PA 20
Assessing medical students' communication skills during OSCE

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Background
In the past, undergraduate students at HSUM are being assessed theoretically by multiple choice tests (MCT), their clinical skills by OSCE, and attitude was one part of the OSCE checklist. HSUM doesn't evaluate students communication skills separately, and no implementation of specific communication skills assessment has been found in medical education training. There has been no study on medical students' communication skills so far and therefore, we chose this study to improve medical students' communication skills assessment.

Study design
A descriptive design was used test analyze.

Study methods
The questionnaire of Rees, 360 degree and clerckship evaluation list were used for the survey, and the data was processed using SPSS-11.5 version of statistical program.

Result
1. The comparison of reliability coefficient of performances for assessment of communication skills was done on each of the 16 clinical cases. For these cases, the reliability coefficient of terminal were decreased by 27%, increased by its 38, 8%, and 27% has no affect. Also subjective influence observed to students clinical competence assessment.
2. Medical students' attitude towards learning communication skills is the same as medical teachers.
3. There's no assessment difference between standard patients 'group and teachers' group, and also gender doesn't influence to students' communication skills.

Students' communication skills with patients are good enough, and attitude assessment depends on environment.
4. Communication skills evaluation should include the following criteria: personal attitude, and professionalism.

Conclusion

1. Communication skills, assessment during OSCE using checklists of clinical competence, doesn't show the real situation of students' attitude.
2. There's need to assess medical students' communication skills during medical training.
3. 360 degree evaluation in hospitals, lasting as long as possible is effective to assess, medical students' attitude, including communication skills and professionalism.
4. Communication skills assessment criteria should be different depending on students' course, faculty and environment of assessment.

ABSTRACT NUMBER: PA 21

Teacher's perception of the first implemented OSCE mock as a reference for perfection in the final clinical exam for medical students

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Introduction

Teachers' perception of exam is an important tool for improvements in the quality and credibility of exams. The objective of the study was to identify problems associated with the OSCE from the teachers' point of view so as to improve and upgrade the quality of the exam the next time it is implemented.

Methodology

Questionnaire was designed to be filled in by the staff at the end of the exam. The questionnaire was divided into five domains: teacher's perception of OSCE station, perception of organisation, perception of real & simulator patients, perception of atmosphere and teachers' perception of students. The results were graded on the Likert scale.

Results

91.6% of teachers agreed that exam was fair. 100% said exam highlighted areas of students' weakness. 83.3% said OSCE was well organised. 83.3% said more time was needed at each station. 66.7% said instructions for moving about stations were clear. 75% said more staff was needed for supervision. 75% said more training for staff was required. 83.4% agreed the environment motivated students to learn and 83.4% said atmosphere was calm. 100% of teachers thought students needed more training for OSCE. 66.7% said real patients got irritated. 58.4% said simulated patients needed more training. The mean results showed that all domains in the questionnaire were good.

Conclusion

OSCE was fair and highlighted students' weaknesses. Exam was well organised, instructions were clear but more time was needed at stations. More staff was needed during the exam and more training for staff was required. Simulated patients needed more training. Real patients got irritated during the exam. The mean result for all domains in the questionnaire was good.

Recommendations

Time at each station should be increased, either by using double stations or linked stations. Increase number of staff. More training for the staff should be done. Increase number of real patients and incentives for them. More training for simulated patients is required. Training of students to sit for such exams should be emphasised on.

ABSTRACT NUMBER: PA 22

Objective assessment of midwifery students' practical skills in comprehensive final exam: Comparison of checklist method with expert tutor's opinion

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Background

Comprehensive final exam is hold to permit the undergraduate midwifery students to enter in the society as a worker. So specialists evaluate the students in this exam as the society need' view. But some of the studies critique from student evaluation according to experts' opinion, because of some reasons such as some preferences and carelessness. On the other hand, nowadays, some tools like checklists are being used for student assessment in final exam. So this study aims to compare scores mean of midwifery students' comprehensive final exam by means of checklist method and expert tutor's opinion.

Methods

This pre-experimental study was conducted on bachelor midwifery students of 8th term (20persons) who were attending in final exam in Mashhad Faculty of Nursing and Midwifery. Two expert tutors evaluated the students by using routine method (checklist) and tutor opinion, at the same time, in labor, Gynecology, prenatal and health units. Then they record students' scores according to their opinion before calculating checklists' scores. Data were analyzed by using descriptive and analytic statistics.

Results

Mean scores of students using checklists and tutor opinion were respectively: labor (14/81±1/15), (14/9±0/99), Gynecology (14/41±1/93), (15/25±1/49), prenatal (15/44±2/08), (15/03±1/58) and health (15/23±1/38), (14/93±1/97) units. Difference of Means in the two evaluation methods were statistically significant in Gynecology (P= 011/0) and prenatal (P=0/031). The highest correlation of the scores between the two evaluation methods with total mean in total period of education is related to prenatal unit (checklist r=0/7, tutor opinion r=0/6).

Conclusion

We can conclude that the checklist and tutor opinion methods correlate highly to each other. But the scores of final exam in both methods don't correlate with total mean in all period of education. Some reasons for this finding include: different condition (stress), type of exam (theoretical, practical) and method of assessment. So this study emphasizes on more investigation on evaluation methods both in summative and formative assessments.

ABSTRACT NUMBER: PA 23

Common misconceptions highlighted among high achievers in an International Inter-Medical School Physiology Quiz

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At the 8th Inter-Medical School Physiology Quiz (IMSPQ) hosted by the Department of Physiology, University of Malaya, 200 students representing 42 medical schools from 15 countries participated. The IMSPQ is a two-day event, with a 100 True/False (T/F) MCQs test on the first day to rank the teams for the 2nd day Oral competition before a live audience of students and staff. The T/F questions were carefully formulated to test for Physiology concepts rather than recall of mere descriptive facts.

Interestingly, we were able to detect among this large group of international medical students common areas of misconceptions as judged from the responses in the MCQ test. For 21 of the 100 conceptual statements, 40-70 percent of the students responded incorrectly. Two examples are "A 0.3M urea solution will cause erythrocytes to expand when placed in it" and "Decreased extracellular calcium will reduce the strength of skeletal muscle contraction". Of note is that these are mistaken answers from pre-selected students representing their respective Medical schools. The IMSPQ questions have provided unique insights into common areas where students universally misconceived Physiological mechanisms. Discussions on the above and several other Physiology questions in the IMSPQ will be presented.

ABSTRACT NUMBER: PA 24

Assessment of the quality of the examination in Pharmacy curriculum

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The Faculty of Pharmacy, International Islamic University Malaysia conducted this survey during the second semester examination in March-April 2007 in order to improve and upgrade the quality of examination in pharmacy education. This study attempted to assess the perception of students on the duration of the exam, clarity of exam questions, difficulty of subjects, discrimination between weak and good students and their expected grading. Moreover, relevance and the applicability of the courses offered by Basic Medical Sciences Department were investigated. Cross sectional descriptive study was conducted. Questionnaires were distributed to 159 students in the examination hall after an examination. All targeted students responded to the questionnaires. The students were asked to comment on the examination, lecturers and course out lines. All information was recorded for further consideration in the next curriculum review. SPSS was used to analyze the data and chi-square test for goodness-of-fit was done to compare categorical variables. The actual grade and expected grade was compared statistically. It was observed that 51% of students did not have sufficient time to completely answer the "Pharmacology of Peripheral Nervous System" paper. Among other subjects, common MCQ was said to be not easily understandable. Questions on "Sensory System" paper were said to be the least relevant within the course objectives. "Cardiovascular and Respiratory system" papers were found to be the most discriminative subjects. It was observed that "Common MCQ" was the most difficult than others. However, 59.6% of students expected that they could get A or A- in Microbiology paper. The grading expected by the students and actual grading marked by the lecturers was found to be different but it was not statistically significant ($p>0.05$).

Curriculum Development

ABSTRACT NUMBER: PCD 1

Effectiveness of undergraduate longitudinal research curriculum

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Objectives
The objective of this research is to evaluate the effect of students' research background and progress in a longitudinal research program on their skills and knowledge as lifelong learners and researchers.

Methods
A quantitative cross-sectional study using a questionnaire designed to measure student's perception on their research program and the problems faced during their research design, conducting and reporting. It was carried out at College of Medicine, King Saud bin Abdul Aziz University for Health Sciences, between June 2007 and July 2008. We compared graduated and non graduated students (groups 1a and 1B, respectively). Another comparison was between those who have previous research experience and those who did not (groups 2A and 2B, respectively).

Results
A total of 48 students have participated in this research. There were no significant difference between group 1A and 1B age and graduation GPA. The same finding was identified between groups 2A and 2B. Group 1B, were significantly more enthusiastic in taking research courses and were better in their number of publication. Group 2A, were significantly higher in their previous research, biostatistics course attendance and number of publications.

Conclusion
Students' progress within longitudinal research program significantly improved their preparation, conducting and reporting of research.

ABSTRACT NUMBER: PCD 2

Complementary and Alternative Medicine (CAM) education and medical student's attitudes toward CAM

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Complementary and alternative medicine (CAM), also referred to as complementary medicine describes those unconventional healthcare practices that are not

considered standard medical approaches. The increasing popularity and use of CAM modalities by consumers indicate a high need to integrate CAM education into conventional medical curriculum and evaluate CAM-related educational outcomes including medical students' attitudes toward CAM. The number of Korean medical schools offering courses in CAM has risen sharply in recent years. Educational courses of study in CAM have been developed. The Korean Society of Complementary and Integrative Medicine proposed a standard 16-hour CAM curriculum for medical students. The CAM Health Belief Questionnaire (CHBQ) is useful in measuring medical students' attitudes toward CAM theories and practices. The student showed positive attitudes towards CAM. The findings of positive attitude/beliefs towards CAM are useful for guiding future CAM curriculum development. The 16-hour didactic CAM instruction curriculum appeared not to have additionally impacted an already positive attitude towards CAM. It seems that we have to collect information on changes in CAM knowledge and skills to demonstrate an increase in these domains of learning.

ABSTRACT NUMBER: PCD 3

Student perception on ideal elective study program in the implementation of competence-based curriculum

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Background
Since 2003, Faculty of Medicine Udayana University has applied a new competence-based curriculum. This new curriculum is accordance with Indonesian Medical Council standards concerning primary health doctor's competences. There are two major components of our faculty comprising, core and non-core competence. The non-core curriculum is 20% of the total curriculum, consisting of elective study program and pre-doctor training program. The elective study program has a main goal of giving opportunity to students to satisfy their interest in a specific field of study that not given in the core curriculum. Previous study showed that student's academic achievement had not increase yet. An ideal program is needed to trigger student's motivation as well as their satisfaction in order to improving the academic achievement. The goal of this study was to know student's perception on the ideal elective study program that could trigger the student's learning motivation.

Method
This study was conducted by using Focus Group Discussion (FGD) method which involved 15 students in different stage of years study.

Result
The FGD showed some students perception such as the need to create more structured schedule, enrich the choice of topics to choose from, the need of facility to conduct a research, the need to increase the quota program participants per topic and the need to upgrade modules annually.

Conclusion
The conclusion of this study showed that to create the ideal elective study program in competence-based curriculum required the student's perception to know many aspect that students need to achieve the learning object of study.

ABSTRACT NUMBER: PCD 4

Klang Valley Healthcare providers' perception of the use of Chinese Medicine for the promotion of health and treatment of diseases

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Introduction
Chinese medicine (CM) was once overshadowed by modern medicine. In recent years, the attitude towards CM has changed. CM is currently being considered an alternative treatment and its development has been supported by the World Health Organization (WHO). In Malaysia, the multiethnic people seek medical treatment from both western doctors and T&CM (Traditional and Complementary Medicine) practitioners including CM practitioners in maintaining health and treating diseases.

Objective
This study assessed the perception of healthcare providers in the Klang Valley towards the use of Chinese Medicine in the promotion of health and the treatment of diseases.

Methods
The study, approved by the IMU Research and Ethics Committee used a self-administered questionnaire, constructed and validated in house. The test subjects consisting of 115 pharmacists, 102 doctors and 102 other healthcare providers (dentists, nurses, laboratory technologists, nutritionists, physiotherapists and others) were sampled by convenient sampling. Data were analysed using SPSS (version 16), analysis of variance, Student's t-test and linear regression. Values of the 3 healthcare groups were compared and the difference considered significant if $p < 0.05$.

Results
There was a significant difference in knowledge score between the three healthcare groups. Respondents self rated their knowledge on 9 items related to Chinese medicine practices, stating that their knowledge of therapeutic exercises was the best, followed by herbal remedies, with moxibustion the least. The doctors were least favourable in their perception towards the use of CM, while the pharmacists had the most favourable perception. The pharmacists were also highly in favour of CM education being included in various health sciences curricula. However, the majority in all groups agreed that the standards for education of Chinese medicine practitioners (CMPs) should be controlled and they should registered by the Ministry of Health.

Conclusion
Among healthcare providers in the Klang Valley, the pharmacists have better perception of CM compared to the doctors. Education and the practitioners of CM should be regulated by the government.

ABSTRACT NUMBER: PCD 5

Necessity of integration in pharmacy education

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During recent two decades, pharmaceutical educators and practitioners have debated whether clinical and distributive pharmaceutical services should be integrated or segregated. Nowadays in most pharmacy schools, students undertook a course of study in the basic medical sciences during the first two years consisting of anatomy, physiology, biochemistry, pharmacology, pathology, and bacteriology, immunology, virology, and genetics, within the discipline-oriented structure. After that, students will start to take subjects such as chemistry, physical pharmacy, pharmacy practice, and then they will exposed to clinical pharmacy and hospital pharmacy attachment during 3rd and 4th year of the discipline.

Traditional curriculum makes most of student confuse during the first two years of their study in pharmacy. Fortunately this problem has been recognized by many pharmacy schools around the world and now undergraduate pharmacy education is undergoing reform, largely driven by changes in the role of the pharmacist. Today pharmacists have to be medicine experts and knowledgeable about health and lifestyle issues. Helping people live healthy lives is bringing pharmacists into the primary health domain. To assist them in this work pharmacists require practical leadership, communication, interpersonal and life-long learning skills to absorb new technologies and advances in medicine.

Pharmacists are assuming new and key primary health roles in the community, in hospitals and in institutional care - roles that require effective and genuine interpersonal and counseling skills. Pharmacists are not only building on their understanding of pharmacy and related sciences, but are increasingly focusing on the health needs of the whole individual; on an integrated health solution - not solely the medication. Pharmaceutical care as the mission of pharmacy practice requires a new approach to education if pharmacy schools are to produce practitioners who are not only critical thinkers, problem solvers, communicators, and ethical decision makers but also caring providers who establish fiduciary relationships with the people they serve. The teaching and learning of general outcomes within professional courses can provide a framework for developing curricula that prepare graduates for success in their professions, communities, and personal lives.

To help pharmacists to achieve those abilities mentioned above and play their real role in the healthcare system pharmacy, schools around the world need to move from the traditional discipline-oriented curriculum toward an integrated curriculum.

In this study the new integrated curriculum will be discussed in details. In such curriculum all clinical and non clinical subjects are integrated and the student will have basic sciences subjects integrated with the clinical subjects in one block, e.g. in block of CNS students will learn anatomy, physiology, biochemistry, pharmacology, medicines, dosage forms and medicinal chemistry of drugs which have application in the CNS, and students also will be attached to the CNS ward in a hospital for at least a couple of weeks.

ABSTRACT NUMBER: PCD 6

Making sense of evidence based medicine – A novel based learning resource for senior medical students

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Background
Evidence-based medicine (EBM) is an essential tool in guiding optimal patient management. Education in EBM at an undergraduate level, however, is a relatively neglected concept. We sought to create a student-friendly web-based learning resource that presents the most significant original research papers in medical and surgical specialties as a learning tool for medical students.

Methods
A questionnaire was distributed to final year medical students to explore learning needs in their EBM education. Students' opinions on the importance of EBM, barriers to accessing clinical research data and the value of EBM training were evaluated. Consultants in Medicine and Surgery provided expert opinion on the most important clinical trials in their specialty. A search of the published literature in each topic was conducted using online databases. A list of key research papers was produced comprising randomized controlled trials and meta-analyses.

Results
62% of students considered knowledge of clinical trials to be an important aspect of their undergraduate education, 66% of students indicated that they did not regularly search for clinical research articles, with limited time (84%) cited as the main barrier. 78% of students stated that hospital consultants were the most influential source in deciding which clinical trials are the most significant. An educational website was developed comprising four sections: 'home', 'how to use this website', 'medicine' and 'surgery'. Drop-down menus from 'medicine' and 'surgery' display the sub-specialties covered in each discipline. Topics are selected within each specialty and the research articles viewed in abstract form, under simple headings. The website is continually updated to incorporate new evidence from research trials.

Conclusion
Students consider EBM an important part of their undergraduate education. They feel inadequately prepared to explore the medical literature and require guidance in this respect. A web-based resource may represent the optimal means of achieving this educational objective.

ABSTRACT NUMBER: PCD 7

A bridging course to acclimatize new physiotherapy students: Experience of four batches.

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Background
Allied Health Sciences Unit of Faculty of Medicine, Colombo offers a BSc physiotherapy course. Entrants are selected from those who finish secondary school. New entrants to a university can face difficulties in adjusting to the university system. A bridging course is done at the outset

to acclimatize new entrants to the change from secondary education system to the university.

Methods
A total of 101 new entrants spanning 4 batches followed a 5 day lecture and activity based orientation programme at the outset of their physiotherapy course. A self administered questionnaire at the end of each programme assessed the perceptions. Free comments and suggestions were also obtained.

Results
Response rate was 90.99%. 50.49% commented the overall programme as being useful. Most liked components were the lectures on time management (n=53), importance of right attitudes (n=39), essential learning skills (n=31) and the small group discussion (n= 35). Activity on English learning skills (n=26) and lecture on time management (n=26) were recommended for further improvement. New entrants recommended improvement in the activities, student presentations (n=12) and small group activity (n=14) while suggesting allocation of more time for these activities. Other suggestions were to provide more knowledge on the curriculum and the expected outcomes of the physiotherapy course (n=9) and to provide information on recreational and relaxing activities (n=7).

Conclusion
The bridging course is considered useful by the majority of entrants while acclimatizing to the change from secondary school to the university. Students seem to appreciate inclusion of both lectures and group activities to the programme while acknowledging the importance of allocation of more time for group interactions. Students expect bridging programmes to provide information on the curriculum to be followed.

ABSTRACT NUMBER: PCD 8
Evaluation of two-year implementation of Ajou curriculum for medical excellence 2009

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Background
In 2009, the curriculum committee in Ajou University School of Medicine (AUSOM) developed a new curriculum centered on "courses" called Ajou Curriculum for Medical Excellence (ACME) 2009. Two years have passed since the implementation of this program. Have we met our objectives? This study aims to evaluate the program of 19 courses in ACME 2009 and identify any outcomes.

Methods
The data of study were the results of 19 courses evaluation over 2 years. The contents of the study include analysis of the results of medical student evaluation of teaching and faculty for the last two years, and the results of the program director's survey.

Results
The themes for the new curriculum are as follows: decreased lecture time, increased small group learning, integration of the basic sciences to improve learning, reduce redundancy, and development of a longitudinal course for the social sciences. Most of the students' evaluation points for each course improved over the past two years, but students were still dissatisfied with the item "amount." Regarding the examination of opinions about new courses, both faculty and students indicated that there were problems of sporadic communication and insufficient learning support. Moreover, students expressed their dissatisfaction that the teaching method mainly consisted of class lectures that were not diverse in content, and that the organic relevance between basic and clinical sciences was limited.

Conclusion
It was shown that most faculty tried to understand and meet the purposes of ACME 2009. Nevertheless, issues such as reflection of educational achievements, systematic teaching and education, activation of online education, and collaboration with the hospital should be resolved in future initiatives.

ABSTRACT NUMBER: PCD 9
Inclusion of affective domain course in the medical education curricula

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Abstract
Of late, there has been increasing awareness of the importance of appropriate professional attitudes and values in the various professions, including medicine (Th. J. Cate & J.C. J.M. Haes, 2000; Arnold, L., 2002; Boyd, B., Dooley, K.E., Felton, S., 2006). Social and economic changes have led to changes in work values and ethics, with the emphasis on remuneration, lack of conscientiousness and failure of self-regulation, and which has given rise to concern (van der Mook et al, 2009a; Cruess and Cruess, 1997; Hafferty, 2002). Education is the sum of meanings students experience and learn as they engage in the educational activities of the educational institution (Dewey, 1959). Generally, assessment of student attainment focuses more on Bloom's cognitive domain of learning due to the difficulty in measuring or assessment in the affective domain (Boyd et at, 2006). This paper presents the effort by Cyberjaya University College of Medical Sciences (CUCMS) to introduce the affective domain course in the medical sciences curricula. Students enter a healthcare programme anticipating helping others; however, their internal container of values pertaining to the medical field may need to be filled and nurtured (Van Valkendburd & Holden, 2004). Underlying the curriculum model is the constructive alignment of the learning objectives, activities, and assessment (Krathwohl's taxonomy) to ensure and enhance teaching and learning. This paper then will examine issues and challenges in the implementation of the affective domain course.

ABSTRACT NUMBER: PCD 10
Knowledge and attitude of medical students towards passive smoking

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Background
Primary care physicians play a vital role in advising patients regarding the ill effects of passive smoking. Thus the

knowledge and attitude of physicians towards passive smoking plays an important role. This knowledge and attitude is gained and developed during his or her medical school days. Hence the objective of our study was to evaluate the knowledge and attitude of medical students towards passive smoking.

Methods
A questionnaire based survey was carried out among all medical students of a university in the year 2006. A validated questionnaire developed as part of the Global Youth Tobacco Survey (GYTS) of the Centre for Disease Control, USA was used. Data was analysed using SPSS version 16.1.

Results
We found that though 61.1% of students felt that passive smoking was harmful, 38.5% male and 24.2% female students felt smoking did not need be banned in public places. We also found that 60% of non smokers felt passive smoking was definitely harmful to health and 83% of students were in favor of banning of smoking in public places.

Conclusions
Though majority of non-smokers were aware of the ill effects, the smokers themselves were ignorant of the effects of passive smoking. This finding is of major concern and thus makes a strong point for the inclusion and implementation of a structured "smoking curriculum" as part of the medical curriculum.

ABSTRACT NUMBER: PCD 11
Nationally-sponsored initiatives for modernizing medical education curricula: A tale of two countries

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Background
Cognitive science and educational theory produce increasingly compelling evidence in favor of the integration of basic, medical and clinical sciences. While curricula on many continents appear to be on a near-constant march toward small-group, integrated, learner-centered medical education, many medical education programs in Africa appear slow to incorporate newer pedagogies into their curricular design.

Description
Two east-African countries have recently embarked on large-scale nationally sponsored expansion of their medical education capacity, addressing 2 central issues:
1) A need to meet the growing demand for training doctors
2) A high rate of locally trained doctors choosing to leave their country of origin for positions outside of Africa.

We present the countries' planned expansion, and the methodologies they employed to initiate the rapid expansion of medical doctor training capacity within the respective countries. We compare 8 dimensions of the projects:
1. Existing medical education leadership structure
2. Collaboration strategies
3. Funding sources for capacity building
4. IT infrastructure
5. Pedagogies considered and subsequently incorporated into design
6. Faculty development frameworks – both existing and planned
7. Student recruitment / admission policies

Results
Comparison of both large-scale, national initiatives show surprising similarity in both
1. The description of their desired outcomes and
2. The challenges encountered at both the conceptual and operational levels.

Of central interest in this study is the expressed desire to create integrated learning experiences for the students. Both programs offer similar explanations for the substantial hurdles they face in moving from subject-specific teacher-centered didactic learning to integrated small group learning methods.

Conclusions
Despite the differences between the two countries medical education expansion projects: (1) funding strategies (2) local vs. national agenda (3) specific health care system infrastructure (4) expressed mandates for change, there is strong evidence that many of the challenges underlying curricular development and overall advancement are extremely similar if not identical.

Thoughtfully constructed solutions to the challenges of curricular innovation in a single country may be more applicable (and less situation-specific) than has been assumed previously.

ABSTRACT NUMBER: PCD 12
Development of a competency based medical education model

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Background
The objectives of this paper are to develop a competency model that can support the development of medical humanity curriculum and competency based curriculum, to test its validity, and ultimately, to propose a competency based medical education model.

Methods
We first developed 250 competency measurement items by conducting media program, 'Best Doctors' analysis and behavior events interview of 21 medical doctors in D hospital. Exploratory factor analysis (EFA), confirmatory factor analysis (CFA) and expert review were conducted.

Results
EFA identified six competency clusters ('respect patient,' 'collaborate and research,' 'goal management and implementation,' 'teamwork and innovation,' 'patience and creativity', and 'skilled and pursuit of perfection') and sixteen subgroup competencies. CFA on competency clusters provided acceptable goodness of fit statistics, indicating that subgroup competencies explain significant amount of variance in competency clusters and that the competency clusters well reflect doctors' competency.

Conclusions
Both CFA on subgroup competencies and comparison analysis among interns, residents, and specialists based on competencies consistently indicate that the competency of specialist is high, showing a supporting evidence for

competency items properly forming subgroup competencies. The result also identified the need of customized classification of educational objectives in cognitive domain and affective domain, hence, accentuating the need of various curriculum plans based on competency level and the amount of time for education.

Clinical Education

ABSTRACT NUMBER: PCE 1
The effective "A Bents" in choosing doctors from Yasujs' people point of view

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Background
Everyday millions of sick people, belonging to different social, economic and cultural class visit doctors. The behaviors of doctors are important in continuous following. Another important factor is the awareness of doctors toward these relationships, effective in consistency of the visit. This study was done to discover the effective agents in choosing various doctors in Yasuj.

Methods
This is a descriptive, cross-sectional study in which 500 subjects from different age and education group were chosen. They were from 3 regions and being asked by a questionnaire which included 19 items (Hill and Garner 1991). The date was gathered by a random sampling method. The questionnaire included demographic traits of the subjects and the effective agents in choosing doctors (doctor's personality traits, the relationship between doctors and patients and the service traits of the sick people). The data was analyzed by SPSS software using descriptive statistical method and non-parametric tests.

Results
The results showed that 55.4% of the subjects were 13-70 year old male with the mean of 28.8 ±10.19 year. Majority of them were employees (28.6%) with diploma 26.9%. The most important factors were the skillfulness of the doctors, his attention to specific problems and the kindness of his secretary, with the average of 4.6, 4.07 and 4.08 respectively. The least important factors were social, political activities and being a male with the average scores of 2.76 and 2.90 respectively.

Conclusion
The doctors awareness of the effective agents in choosing them such as the scientific efficiency and skill, paging lovely attention to the sick and selecting kind , well-educated secretaries are important factors in satisfaction of the sick and his or her permanent visit to the office.

ABSTRACT NUMBER: PCE 2
Clinical skills center at Faculty of Medicine, King Fahad Medical City, Riyadh

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Introduction
Clinical skills program is one of the most important strands in the curriculum of Faculty of Medicine (FOM), King Fahad Medical City (KFMC).The Clinical Skills Center (CSC) is a professional training center within the FOM.

Vision
To be the most advanced and recognized clinical skills center and medical simulation reference icon in KSA and Middle East.

Mission
Provide a well-developed clinical skill educational resource that maintains a safe, non-threatening environment to facilitate both the teaching and learning.

Location
CSC has a purpose built 2500m² area designed by B-Line Medical, located on the 5th floor of FOM.

Available resources
1. CSC consists of a simulation area with Operation room, intensive care room, obstetric and gynecology room, pediatric room, inpatient rooms monitored through 3 control rooms and 6 control stations and a Standardized patient (SP) area with 19 SP rooms for males and females, SP control rooms and SP coordinator offices. In addition, it has 4 debriefing rooms, 2 SP locker rooms, 3 stores and staff offices.
2. A variety of low and high fidelity simulators (e.g. Human Patient Simulator, PDA-stat, Full body manikins), instruments & equipments.
3. B-Line medical clinical skills system software that features key card based tracking, automated digital recording, real-time testing & automated assessment, cases & scenario designing, real-time monitoring & control, center usage & trend analysis and scheduling &center management
4. SP-program with more than 30 male and female SPs
5. AV solution including software & hardware
6. Computers and network
7. CSC staff including a director, faculty, an administrator, secretaries, and male & female technicians.

Curriculum
CSC has adopted an integrated curriculum recommended by Association of American Medical Colleges (AAMC).

Current activities
CSC is a recognized OSCE center for the examinations of Saudi Commission for Health Specialties. It is currently involved in teaching clinical skills to FOM students, conducting OSCE exams, organizing various training sessions & workshops, and collaborating with other universities.

ABSTRACT NUMBER: PCE 3
The obstacles in carrying out instruction design (plan) studied from professor's outlook and presenting revising techniques

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Background
Instruction design preparation is one & basic process of pre-teaching activity for any instructor and could be as a help and a solution for influential teaching in bedside. The objective & clinical task is the adaptation of theoretical knowledge to patient bedside and the practice of skill tasks. It is necessary to prepare distinctive framework of instruction design.

The reason is that there are some problems caused by disproportion of teaching content to individual's duties and responsibilities, so the objective &fulfilling this investigation is studying of obstacles in caring out instruction design from professor's outlook and presenting revising techniques for teaching of clinical training which is done.

Methods
This investigation is a kind of descriptive – sectional study in which the obstacles of carrying out instruction design and presenting of revising techniques for clinical training is observed (studied) this investigation is studied from professors outlook (professors of Yasuj medical collage). Simple sampling and questionnaire made by investigator prepared to fulfill this objective in the form of conducting a census the above investigation was analyses after collecting the data, making use of SPSS software and central and dispersed indexes.

Results
About 78/6 percent of case study individuals used check-list for clinical training of 54/8 percent of individuals participated in methodology classes. The case study individuals have 82/41 percent of awareness about instruction design (plan). The most obstacles in carrying out the clinical instruction design were originated from the limitation of facilities and materials (about 81 percent), the excess in the number of university students (about 96/2), lack of students' Knowledge in the methodology & teaching method of these clinical training (bout 66/7 percent)

Discussion and conclusion
According to the acquired results of obstacles in carrying out instruction assign, it is suggested that there should be an instructional design (planning) directed by professors cooperation and stable group in clinical environment (atmosphere) and cool adoration for providing and equipping facilities in sections (departments), in order to implement clinical instruction design (planning) as we do for theory.

ABSTRACT NUMBER: PCE 4
Students' point of view on clinical training: A qualitative study among preclinical students

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This study is performed to find out medical students' perception on clinical skill training by evaluating their instructor and the training facilities. It is a qualitative study using a questioner that is distributed right after the clinical skill training. Students were asked to evaluate their instructor and the training facilities that were rated on a Likert scale. The ratings from each student were recorded. A cumulative score that included all statements was calculated using SPSS 11.5. The clinical skills training instructors already have good learning behavior but need to improve in giving constructive feedback and explain negative feedback. There are still many things need to be improved in clinical skill training supporting aspects, especially the manual and the training room's and their facilities.

ABSTRACT NUMBER: PCE 5
Patient empathy among medical students

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Background
Empathy is one of the most desirable traits that medical education should promote among students. Empathy among medical students can lead to patient satisfaction and compliance to treatment. The changing humanistic attitudes of medical students during their training has been dramatically influenced by the rigors of training and the burden of balancing patient care with the advances in health care. This paper is aimed to compare the empathic attributes among medical students in terms of sex and year level.

Methods
This causal-comparative study involved responses from 99 Third Year and 87 Fourth Year Medical students using a validated self- developed Patient Empathy Scale for Medical Students with a reliability coefficient of $r = 0.907$.

Results
In terms of sex, the males had a higher mean value indicating lower empathy compared to the females ($p = 0.00$). Furthermore, the third year medical students exhibited lower mean scores compared to the fourth year students ($p = 0.01$). The data also indicated no significant interaction between sex and year level ($p = 0.97$).

Conclusion
The study showed a difference in the mean empathy scores between the male and female medical students and between the third and fourth year students. However, no interaction between sex and year level was established. The scale is a self-report of the respondents' perception of empathy and may not indicate the true nature of their empathic attributes. It is suggested that patient's appraisal of the empathic behaviour of the medical students be conducted as well as a longitudinal cohort study to monitor the development of empathy among medical students.

ABSTRACT NUMBER: PCE 6
Stress level assessment among final year pharmacy students during Satellite and Therapeutic Drug Monitoring (TDM) clerkship in Universiti Sains Malaysia Hospital (HUSM) Kelantan Malaysia

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Objectives
To assesses perceived stress level among final year pharmacy students during two different clerkships and determine the most common factors triggering stress during the clerkship.

Methods
A time series cross sectional survey was conducted using Perceived Stress Scale survey instruments.

Results
More than 50% of the students were Chinese female. Total score of perceived stress level during satellite clerkship

was significantly increased on day five of clerkship. More than half of the students (> 50%) preferred to spend time with "family and friends" as their best strategies in coping stress. Stress level was most significantly higher in satellite clerkship compared to TDM clerkship with examination and assignments as the most common stress triggers among the students.

Conclusion
Perceived stress level during two pharmacy based clerkships was different. Examination and assignments were the most common stress triggers among the students.

ABSTRACT NUMBER: PCE 7
Students' performance and knowledge about cardiac life support. Does simulated teaching make a difference?

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Background
Cardiac Life Support (CLS) training is a critical component of undergraduate teaching. The training helps to develop an organized thinking process in the students.

At IMU, a half day cardiac life support teaching session was provided for the fourth year students which included training on the defibrillator machine, how to handle an arrest situation and drugs for resuscitation.

A new CLS training session was introduced and increased to a one day course where students were given practical training first, which included 5 stations (airway equipment, mega codes, drugs for resuscitation, defibrillator usage and rhythm identification) and had written MCQs exam and mega code testing for each student based on the ACLS case scenarios.

Objective
To evaluate the students' performance based on knowledge acquisition after a change in delivery of CLS training.

Methodology
The students in both groups had an online manual to read prior to attending the training session which included an online written exam prior to the training session for group II. Both groups were given a written exam six months after the CLS training which was identical. The results were analyzed to see if there was an improvement with the change in delivery of CLS training.

Results
Group I had a total of 82 students and group II had 77.There is a statistical difference in the final mean mark between the two groups with group II scoring higher (67.3) than group 1, (62.1). We found no significant mark difference between male and female students for both the cohorts

Conclusion
There is a difference in students' knowledge when cardiac life support is taught using simulation. The students will be more confident doctors when they graduate, having had more hands on, albeit on manikins.

ABSTRACT NUMBER: PCE 8
Clinical skills unit: The students' perspective and utilization

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Introduction
The clinical skills unit (CSU) plays a major role in the development of medical students in all semesters. CSU activities in the Clinical School are usually during the office hours where students from different semesters compete for practice time. We decided that a survey with the students as the responders would give us an opportunity to identify and improve CSU function.

Objective
To identify if at present the CSU is adequately equipped and students are satisfied with equipment and time allocation.

Methodology
All students from semester six to nine in the Clinical School, Seremban of the International Medical University were given a questionnaire. They were required to answer questions regarding the CSU and asked to provide their opinions on the time allocation and the availability of equipments.

Results
There were 241 respondents. 38% (92) of them were satisfied with present CSU time. 77% considered 2 to 8 in the evening as the best time to learn in CSU with 23% actually said 6 to 8 in the evening as the best time. 32% of students would like to practice 3 hours per week in CSUS followed by 27% 4 hours per weeks and 25% 2 hours per week. 69% of students used CSU at least twice or thrice to practice their skills in a week. Only 54% of students said equipment and manikins were made available when request and 68% of them agreed that they were appropriate for their learning.

Conclusions
Generally there seem to be uniformity in the students' opinions regarding the function and availability of certain equipment. There seem to be a need to increase the availability of some equipment and perhaps extend the time the CSU is available to the students. A trial run may be more appropriate.

ABSTRACT NUMBER: PCE 9
Impact of distributed medical education, evaluation of 3-year implementation

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Background
The distributed medical education was started in 2007 in which clinical clerkship students are sent to the remote areas in West Java to work in district hospitals and community health centers. They spend 5 months for this program and moved in every 2 months. They work in emergency, outpatient and inpatient department and served as junior doctor and supervised by the local doctor. This is expected to improve the quality of health service in West Java and to give the students more opportunities in patient management.

Methods
A validated questionnaire was distributed to the supervisors, other health professionals and the patients in the district hospitals. Items to be analyzed are the quality of patient doctor communication, the professionalism of the junior doctor, their ability to respect other health professionals, the competency in patient management, and how their presence can influence the quality of health service in term of patient satisfaction.

Results
This is on going research. The questionnaire was distributed in the early of December and expected to return in January.

Key word
Program evaluation, distributed medical education.

ABSTRACT NUMBER: PCE 10
Developing standards for the number of skill performance times in nursing clinical education program according to learning curve

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Background
A main purpose of clinical training in nursing education courses is to acquire expertise in clinical skills performance. In this study we used learning curve to establish standards for required performance numbers of two main nursing skills including intramuscular (IM) injection and intravenous (IV) catheter insertion.

Methods
This time series study was conducted on 58 junior nursing students who were selected through a convenience sampling method at Mashad nursing school. Competency score of each student for each skill was evaluated by Competency Evaluation Checklist (CEV) and recorded on learning curve for first to tenth performance. CEV was confirmed by computing content validity index and intra rater reliability coefficients.

Results
Mean competency score of IM injection was %62.4±21.5 in first performance which increased by 95.1±5.9 in tenth performance. The corresponding values for IV catheter insertion were 36.9±10.3 and 94.6±3.9 respectively. Learning curve reached a plateau after 5-7 performances in both skills. Average students acquired a 75% competency at fourth performance of IM injection and sixth performance of IV catheter insertion.

Conclusion
Although for assuring students competency 4 performances of IM injection and 6 performances of IV catheter insertion at least, are unnecessary for achieving more competency, it is recommended 7 performances. Nursing clinical education programs may include these standards to facilitate goal achievement on clinical skill training.

ABSTRACT NUMBER: PCE 11
Clinical education in dentistry: Student's viewpoints

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Introduction
Effective teaching in professional courses such as dentistry is necessary. Promoting clinical education quality requires continuous assessment of the current situations in clinical education fields, identifying the strength, and improving the weaknesses. The purpose of this study was to evaluate clinical dental education from the perspective of the dental students

Methods
The students' perspective was provided by 144 senior and junior dental students at Shiraz dental school who completed the Clinical Education Instructional Quality Questionnaire (ClinEd IQ) in 2007-2008. The CinEd IQ examined three components of students' clinical experience:

1. Clinical learning opportunities (11 questions)
2. Involvement in specific learning activities (10 questions)
3. Interaction with clinical instructors.

The likert scale was applied-complete agreement rated 6 and complete disagreement 1. Content validity was done and reliability showed 0.89 with alpha cronbach. The data was analyzed by SPSS software using descriptive statistics.

Results
The results showed that the strongest aspect of their clinical education was their successful learning opportunities (96%), and also perceived that they had a good interaction with the faculty (86%) but also reported that their involvement in learning activities is hindered (60%).

Conclusion
Although some aspects of clinical dental education were good and excellent, improving positive aspects and modifying the weaknesses may be an effective step in clinical dental education quality promotion. Changing the teaching strategy from teacher – centered toward student – centered will be an improvement in clinical teaching for dentistry program.

Key words
Clinical education, dental students, dental education

ABSTRACT NUMBER: PCE 12
Attitude of surgical and anaesthetic postgraduate trainees towards teaching medical undergraduates

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Background
Postgraduate trainees contribute significantly to teaching of undergraduates. Their attitude towards this has an impact in quality of clinical teaching.
This study aims to assess their attitude, views on barriers and suggestions for improvement.

Methods
The study was conducted on all surgical and anaesthetic postgraduate trainees attached to National Hospital of Sri Lanka over one month period using self administered questionnaire.

Results
Seventy four surgical (62.2%) and anaesthetic (37.8 %) postgraduate trainees with a mean postgraduate experience of 2.58years (range0.1-8years) participated. In a linear scale graded from 0(very poor) to 7(excellent), median overall attitude towards teaching was 6(SD+/-1.01).Undergraduate teaching was described as "very useful to them" by 37.8% and communication skills had improved in 48.6%. Most important reason to teach was that they benefited as students (49.6%). Undergraduates were generally perceived as "average learners" by 71.6% and female students were mentioned as better learners by 29.7%.Harassing students was not an acceptable way to teach to 97.3%.Undergraduate teaching mainly by trainees was considered as perfectly ethical by 36.5% and not ethical by 1.4%.Lack of time (70.3%) and lack of enthusiasm (68.9%) were the commonest barriers for teaching from trainees and students sides respectively. Preferred mean number of students in a group was 9.34(range 3-25) and mean duration for a ward class is 46.04 minutes (range15-120 minutes). A time gap between two student clinical appointments was not needed for 59.5%. Majority needed neither extra payment (89.2%) nor work off sessions (68.9%) for teaching but 77% thought it is important to receive a certificate of appreciation. Proper schedule and enthusiastic students were emphasized as suggestions to improve teaching.

Conclusion
The overall attitude of postgraduate trainees towards undergraduate teaching was satisfactory. They consider it is important for their own development. Considering their suggestions in undergraduate curriculum especially appreciating them in a form of certificate will further encourage them.

ABSTRACT NUMBER: PCE 13
Medical education registrars: Embedding education in clinical contexts

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Program
Queensland Medical Education and Training (QMET) manage the Medical Education Registrar (Registrar) 12 month training program. The Registrars are employed by the Health Service District where they pursue an educational project, in collaboration with a project supervisor, within their area of interest and clinical practice. Registrars in 2009 and 2010 worked in a variety of contexts including: Neonatal Intensive Care; Paediatrics; Emergency Departments; a Clinical Skills Development Service, and a Medical Education Unit. The three projects cited highlight the capcity to embed medical education in clinical contexts.

POLIE – Paediatric Online Interactive Education – a modularised learning package focused on key paediatric presenting complaints developed as on-line training resources in 2010. Pilot topics include the infant or child with: fever; irritability; breathing difficulties; vomiting +/- diarrhoea; altered level of consciousness (head injury, seizure); acute abdominal pain, and constipation/enuresis. General paediatric education is being increased through statewide rollout of the modules.

Comparing the Mini-Clinical Evaluation Exercise (mini-CEX) with existing workplace assessments in a Tertiary Level Emergency Department (ED).
The study included 20 Interns in a 10 week ED rotation. At the mid-term performance assessment 4 mini-CEX assessments per Intern were undertaken by a group of trained assessors. The standard mid-term assessment was completed for the Interns by assessors not involved with the mini-CEX. The findings for this Intern group included: both tools identified the same underperformer and the mini-CEX identified further areas of underperformance. The role of formative performance feedback was highlighted.

Pocket Simulation
Designing, planning and implementing a high fidelity simulation program in a metropolitan emergency department undergoing growth and expansion. A team based focus was taken to simulate the significant nursing and medical interactions required in emergency department scenarios. The future issues include succession planning, cultural change to incorporate simulation culture in the workplace, and future paediatric service expansion.

ABSTRACT NUMBER: PCE 14
Clinical supervisor preparation: Strategic leadership to build medical supervisor capacity

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Background
Queensland Medical Education and Training (QMET) manage recurrent funding to support the clinical supervisor preparation processes provided by health service districts (Districts) in Queensland. The districts applied for funding through business case submission outlining the proposed program format and content. Initiatives and innovative approaches that increased regional support; additional training for International Medical Graduate supervision; interdisciplinary learning and faculty development were rewarded.

Two approaches to clinical supervisor preparation were evident in the program evaluation reports provided by the Districts for 2009-10 year.

1. Teaching on the Run (TOTR) standard modules (Lake, 2001):
   - Clinical [bedside] teaching
   - [Clinical] skills teaching
   - Feedback & Assessment [& Appraisal]
   - Supporting Trainees [Junior doctor in difficulty]
   - Planning term teaching
   - Effective group teaching

   These modules were offered as a single module workshop, or a number of modules grouped together for half, full or 1½ day workshop.

2. One tertiary teaching hospital program was developed as a one day workshop to incorporated TOTR principles and concepts as well as including an additional topic - Supervisor's Professional Role as Leader

Results
For Queensland a total of 597 clinicians received some component(s) of clinical supervisor role preparation in 2009-10.

Of these 401 clinicians received training in one, or more than one, TOTR modules in 3-4 hour workshop format. Three sites reported a process for tracking completion of TOTR modules with a total of 13 clinicians completing all six. 196 clinicians received training in a full or 1½ day workshop format that included either a grouping of TOTR modules or an alternately constructed workshop program.

There is some evidence of the sharing of facilitator expertise across facilities and districts. Support for regional and remote clinical facilities and a small number of multidisciplinary attendees were positive contributions to the supervisory capacity for the Queensland Health context.

ABSTRACT NUMBER : PCE 15

Adaptation utilization and effectiveness of Context, Input, Process, Product (CIPP) model of program evaluation to development of a simulation program

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Background
The design and the subsequent evaluation of the effectiveness of simulation augmented education requires in-depth knowledge of the educational context within which the simulation will be infused; the inputs such as the background skills of the learners and teachers; the processes such as feedback loops to adjust the content to be learner-centered; and finally the products such as informative assessments.

The objective is to describe the adaptation, utilization and effectiveness of Context, Input, Process, Product (CIPP) model of program evaluation to development of a simulation program.

Methods
Pediatric urology fellows and faculty participated in a 90-minute workshop. The purpose was to develop a simulation program to be implemented in senior resident pediatric urology training. Structure of the workshop: 20-minute didactic, 50-minute design, and 20-minute debriefing sessions. A-priori, participants decided on skills, learning objectives, and duration of the program. Next, they were divided into two groups: Traditional (followed an unstructured program design) and CIPP-guided (used CIPP to plan the details of the program).

Results
The traditional approach resulted in a detailed program outline focused on learning objectives, content, simulators, feedback strategies, and program duration. Interaction of the program with other learning and clinical activities, and performance based assessments were not considered. The CIPP-guided approach resulted in a program description focused in its fit with other learning opportunities, potential impact on clinical duties, availability of facilities and teachers, strategies for on-going assessments of the success of the program, and needs for formative and summative assessments.

Conclusion
The results support to the adaptation, utilization and demonstrate the benefits of using CIPP model for the development of simulation programs. Although the traditional approach resulted in a detailed description of the program, only the CIPP-guided approach resulted in details enabling successful infusion of simulation in the broader educational context.

ABSTRACT NUMBER: PCE 16

Decreasing women physical and psychic consequences of pre-menses syndrome (PMS) through a Multidimensional Skills Program

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Background
A prevalent disorder which women suffer from is Premenstrual Syndrome (PMS). The scientific reports show PMS frequency in about 30 to 86 percent of women in society. A number of psycho-somatic difficulties occur with repetitive nature before and during menses, have been listed. The syndrome consequences harm personal and social functions. This semi-experimental intervention has been accomplished to decrease women's physical and psychic consequences of pre-menses syndrome (PMS) through a multidimensional skills program. By using F-tests data were analyzed.

Methods
A sample of 100 women was selected among females who whom suffered from PMS, at least with three of 10 signs, in Tehran (as a cluster sampling from 4 socio-economic parts of city). They were randomly divided to 4 groups (each one contains 25 women). Three kinds (self-regulation and coping, physical exercises, and multidimensional as a holistic) programs had been instructed in Family Cultural House in the center part of Tehran. All groups were assessed three times (before, after, and following instruction) by using PMS signs check list, attitude toward self and attitude toward PMS scales.

Results
Instructing multidimensional skills program shows significant decrease in PMS psycho-somatic symptoms and so significantly refined attitudes toward self and PMS in all cognitive, emotive, and behavioral dimensions. The control group did not show any statistical significant difference.

Conclusion
The multidimensional skills program could be effective in to improving the quality of life of women qualities of life that suffer from PMS. It is recommended to perform and experiment a program which asseses the socio-economic factors correlated with PMS to define a structural equation model.

ABSTRACT NUMBER: PCE 17

Impact of education on the knowledge and performance of the protective measures of anticancer drugs in clinical staff

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Introduction
The present research in a semi-experimental survey aimed at finding out the impacts of education on the knowledge and performance of the protective measures of anticancer drugs in clinical staff of Shiraz University of medical sciences.

Material and Methods
Nursing staff of oncology, clinic and Community Social Responsibility wards in pediatric and oncology wards and radiotherapy department of Namazi Hospital; and finally ten laboratory staff .The data gathering procedure was as follows:
1-A questionnaire for pre and post test consisting of two parts: one for general information in which the demographic information was obtained and the other was concerned with protective measures of anticancer drugs. The second part included 40 questions for nurses and auxiliary nurses 23 for nurse aides and 7 for the laboratory staff.

2-A checklist which also consisted of two parts, the first part studied the use of protective tools (gloves, gown, mask and glasses) when preparing and being in contact with anticancer drugs and the second part studied the use of protective tools (glove, gown and mask) when confronting the metabolites of the drugs. Data gathering was performed through several stages. First while observing the performance of the subjects in contact with anticancer drugs and the metabolites of the drugs completed the checklist for all units under study, then pre-test was done. Then 7 educational lectures on the principles of protective measures against anticancer drugs and their metabolites were given. Then the questionnaires containing post-test items were completed by each unit and were collected for further analysis after the last lecture and one month thereafter(to study the rate of recalling the materials taught in the units under study). Finally the first checklist was completed while observing the subjects' performance.

Results
The findings revealed that before the patient education only 69% of the subjects had relatively enough knowledge of the measures (70-100 points out of 100), while immediately and one month after the education almost all the subjects obtained 70-100 points out of 100. ($p=0.00001$). On the other hand, following the education in comparison with pre-education status, subjects followed the protective measures concerning the anticancer drugs and their metabolites more carefully ($p=0.00001$).

Conclusion
Education has positive impacts on the knowledge and performance of protective measures of handling anticancer drugs in clinical staff of Shiraz University of medical sciences.

ABSTRACT NUMBER: PCE 18

To find prevalence and pattern of use of Allopathic and Ayurvedic Medicines in asthma and arthritis in selected Primary Health Centres and a Tertiary Care Ayurvedic Teaching Hospital in Mysore

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Introduction
Concomitant use of different systems of medicine together with allopathic medicines may result in increased morbidity, mortality, and decrease in quality of life.

Objectives
To assess the prevalence, incidence rate, adverse reaction pertaining to the concomitant use of allopathic and ayurvedic medications in patients with asthma and arthritis. The study analyzed the benefits of the treatment by performing PFT for asthma patients and assessment of pain in arthritis patients and the Questionnaire was also used.

Methodology
This prospective study was carried out in the OPD departments of JSS Ayurvedic Teaching Hospital and selected Primary Health Centers in Mysore city. Patient's demographics, medication history details such as ayurvedic and allopathic medicines, if any adverse reaction experienced were collected. A validated questionnaire was used to assess patient perception towards the use of both the systems of medicines. The benefits in using of both allopathy and ayueveda medications were assessed by performing PFT for asthma patients, pain in arthritis patients, with the help of arthritis pain scale.

Results & Discussion
Out of total of (219) patients, 71 were found to use both systems of medicine giving a prevalence of 32.4%, with an incidence rate of 29.6%. This high prevalence of concomitant use of both the systems of medicine may be because of chronic disease which they are suffering from and hope of getting improved therapeutic benefits, as CAMs are natural and devoid of harmful effects. The overall incidence of ADR was 10%. Only 32.4% of the respondents mentioned that they have discussed about the use of ayurvedic medications with their physicians. 67.6% have not disclosed use of ayurvedic medication and the reason mentioned was fear of physician's disapproval about their therapy though with the therapeutic benefit, though there was a slight improvement in PFT, and pain scale values of asthma and arthritis patients, but these values were statistically not significant ($p>0.05$). The reason mentioned for improvement in values was use of concomitant therapies, and the patient's satisfaction with dual therapy.

Conclusion
A quite high prevalence of use of both system of medicine was observed in asthma and arthritis patients, mainly due to decreased quality of life and faith of additional benefits by concomitant use of both systems of medicine.

Key words
Ayurvedic; Allopathic medicine; PHCs; Use; Prevalence; Pattern

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ABSTRACT NUMBER: PCE 19

Effect of emotional intelligence on Patient-Physician Interaction Scores on clinical performance examination in medical students

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Background
Patient-Physician Interaction (PPI) is a critical part in clinical encounter. Recent studies emphasize the importance of emotional intelligence (EI) of physician on the PPI. EI is important for the effective interpersonal skills, particularly with respect to delivering PPI. For this reason EI is increasingly emphasized on the health care literature. Despite emphasizing EI, previous studies offer limited

evidence regarding the effect of student's EI on PPI. In this study our aim was to explore the differences of EI depending on medical student's features, and to identify the effect of student's EI on their PPI scores.

Methods
We studied rating for 85 fourth year medical students at the end of the semester. Prior to taking 12-station CPX, student completed questionnaires on their own perception of the EI which include 5 domains and 50 items. We investigated differences of EI depending on student's features using ANOVA, and also identified a correlation between EI and PPI scores.

Results
Females, graduate entry student and student majored natural sciences in undergraduate course had higher EI scores. The PPI scores positively correlated with EI total scores(r=.32) and two sub-domains (recognized and expressed feelings r=.26, empathize r=.33). Two sub-domains were the best predictor of PPI scores (R2=.157).

Conclusion
EI has a significant correlation with and after the PPI score. We suggest that EI is one of the key factors influencing to the PPI. While further work for validity is needed, EI appears better able to predict the PPI scores.

ABSTRACT NUMBER: PCE 20

Developing motivational interviewing skills of dental students in the prevention of Chronic Inflammatory Periodontal Disease

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Background
For most of the 20th century, management of chronic inflammatory periodontal disease (CIPD) was based on the "repair" model of care, and the dentists' goal was to diagnose the problem and resolve it via treatment. In the last two decades with the improved understanding of the etiology of CIPD, host factors are now considered major determinants of disease onset and progression. The paradigm shift in dental education is to incorporate prevention as a strategic approach in controlling this chronic disease. Prevention of periodontal disease from occurring or recurring after treatment is based to a great extent in identifying the risk factors, educating and empowering the patients to control the identified risk factors. There is evidence that demonstrated that patient-centred approaches to health care consultations may have better outcomes than traditional advice giving. Motivational interviewing (MI) is a patient-centred approach to promote behavioral change by helping patients explore and resolve conflicting issues. Hence MI can be a powerful tool to change lifestyle habits of patients for both the prevention and management of CIPD. Training dental students to conduct MI is an essential part of their learning process.

Description
A program for training second year dental students to conduct motivational interviewing was structured with four components; 1) Knowledge, 2) Observation, 3) Simulation, and 4) Experience (KOSE) based on Miller's framework for clinical competency. The students were introduced to health and diseased periodontal tissues as part of their dental science module in the form of seminars and problem-based learning (PBL). They were later introduced to the clinical aspects of various periodontal conditions and the underlying risk factors in dental practice module through various learning activities; plenary, PBLs and resource sessions. Students received formative and summative assessments to evaluate their level of knowledge pertaining to those delivered topics.

The second and third component of the program involved clinical management of periodontal disease, patient education and empowering through various activities including clinical sessions, poster presentations and role-playing. The students were introduced later to an online perio-risk assessment tool developed by the American Academy of Periodontology. The students were trained to conduct MI through two main tasks. First was to interview and key in the information related to the patient using the perio-risk assessment tool and obtain online the perio-risk profile of the patient. During this task, the student learned about the patient's attitudes and habits. The second task was to provide education and advice that were customized to patient's needs to empower and motivate the patient to control his/her risk factors.

ABSTRACT NUMBER: PCE21

Does a "prescribing skills workshop" improve undergraduate medical students' competence in prescribing?

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Background
Previous studies have shown that our new medical graduates were inadequately prepared in prescribing. A "prescribing skills workshop" was designed to improve these skills. This study aimed to evaluate the effectiveness of this "prescribing skills workshop" in improving their prescribing competence.

Methods
Final-year undergraduate medical students of 2005-2010 class were divided into 12 groups. Six "intervention" groups underwent a half-day hands-on training workshop in a district hospital posting before sitting for a standardised prescribing skills test at the end of the posting. The other six "control" groups received the same training, but at a clinical posting held post-test. At the end of the training, students evaluated their own prescribing awareness and competence (knowledge and skills) in a self-administered retrospective pre-post-survey. In addition they were assessed in a 30-minute written prescribing skills test which consisted of seven questions. Two questions assessed students on sources of drug information, another two on the rationale of prescribing and what information should be provided to the patient, one assessed students' ability to write a prescription, another was on drug dosages whilst the last question was on common prescription errors.

Results
A total of 163 students participated in this study. There was no difference in demographic data between the control and intervention groups. The retrospective pre-post-survey results showed a 24-36% increase in awareness (5 items) and 36-46% increase in competence (6 items). The mean score ± SD of the prescribing skills test in the intervention group (47.8 ± 9.8%) was significantly higher than the

control group (43.3 ± 8.9%), indicating the effectiveness of the "prescribing skills workshop". The low average test scores and small improvement may be due to inadequate time allocated for the test.

Conclusion
This interactive/hands-on training workshop has improved undergraduate medical students' competence in prescribing (albeit only slightly), besides increasing their satisfaction in the training.

Evaluation

ABSTRACT NUMBER: PE1
Assessment of the effect of professor's knowledge and attitude from community oriented medical education

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Background
Community oriented medical education emphasize on medical education based on community health needs and physicians with accountability for community health needs. Professors in medical schools must have knowledge about community oriented medical education and should have good attitude and performance about it.
The aim of this study was determination of the effect of professor's knowledge and attitude from community oriented medical education on performance of them.

Methods
It is a cross-sectional study that has been performed in educational hospitals of Mashhad University of Medical Sciences with observation and questionnaire after pilot study. We send questionnaires to educational hospitals. Data has been analyzed with SPSS 11.5 for descriptive statistics, frequency and correlation coefficient.

Results
105 professors returned the questionnaire, 23 respondents (22.1 %) of professors had high knowledge, 45 respondents (43.2%) had positive attitude or completely agreed and 33 respondents (32.1 %) had a very good performance. There was some relationship between professors' knowledge and performance (ρ = + 0.528) between professors' attitude and performance (ρ = + 0.357) and between professors' knowledge and attitude (ρ = + 0.468.)

Conclusion
Knowledge and attitude about community oriented medical education in professors could affect on performance of them.

ABSTRACT NUMBER: PE 2
Researching the selection of medical students: What works?

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Over recent years the selection of medical students has changed from past academic performance (matriculation scores, GPA) to past academic scores plus non-academic criteria. This has resulted in debate and research. The research has had quite variable outcomes. Some of the variation has arisen as the result of methodological difficulties and this paper will explore some of the more common problems.

In particular the paper will explore the following:

1. Unmatched criteria – expecting non-academic selection criteria to have an impact on academic outcomes.
2. Time-related variation in relationship between criteria – the relationship between non-academic criteria and educational outcomes may vary as students move from the early years to the later years.
3. Range restriction – selection into medicine only takes the highest achieving students and thus the range of scores that can be evaluated is very small. This reduces correlation values significantly.
4. Measurement error – instruments that have large measurement errors will not correlate well with outcome measures that also have large measurement errors.
5. Piecemeal approach – most selection research investigates one aspect of the selection process. There have been very few studies of the overall selection process.

Each of these topics will be discussed and examples provided. Overall the message is that selection research is problematic and will not improve until researchers start using powerful statistical techniques that investigate the totality of selection and examine the outcomes over a longer time frame than is seen in most current research. Future research will require a mixed methods approach that uses multi-level hierarchical modelling and the development of new instruments to assess the quality of medical practitioner performance.

ABSTRACT NUMBER: PE 3
Identifying the quality criteria for community-based medical education in Hong Kong

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Background
In order to better prepare our students for the health needs of the community, there has been a push for medical schools to shift education outside of traditional environments and to provide greater learning opportunities in community-based settings. One of the main challenges in moving medical education into the community has been the monitoring and maintenance of teaching and learning standards across a number of decentralized environments. In order to ensure adequate standards are met, we must first identify the criteria by which it should be evaluated.

The aim of this study is to identify the quality indicators and criteria for teaching and learning in community-based medical education in Hong Kong.

Methods
A review was conducted of the international literature on community-based medical education, with specific attention to generic learning objectives, quality indicators and potential outcome measures. One-on-one interviews were then conducted with all program directors involved in community-based teaching within our MBBS program. Interviews were audio-taped and transcribed verbatim. Content analysis of the transcripts was performed to identify key themes and exemplar quotes.

Results
Over 200 quality criteria were identified from the literature. These were grouped into 4 main categories: organizational structure (relating to faculty), learning environment (relating to teaching sites and teachers), and learning processes (curriculum, assessments) and student outcomes. Data from faculty interviews provided supplementary information regarding the indicators and criteria perceived as most valid, relevant and feasible for community-based teaching and learning in our local setting.

Conclusion
Recommendations from the literature can be used to help establish benchmarks for good practice. Stakeholder views helps to further clarify which criteria are of greatest relevance and validity for local use. This information is useful for the planning, evaluation and further expansion of community-based medical education in Hong Kong.

ABSTRACT NUMBER: PE 4
The perception of medical students on the teaching change competence of lecturers in the block evidence based case medicine, in 2008

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Medical students of Warmadewa University Medical School are educated through interactive lectures and small group learning and discussions. The core standard competencies stated in the Indonesian Standard Competencies for medical education include among others: (1) Patient care that is compassionate, appropriate and effective for treatment of health problems and promotion of health, (2) Medical Knowledge about established and evolving biomedical, clinical, epidemiological and socio behavioral sciences and application of the knowledge to patient care, (3) Practice-based Learning and Improvement that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, and improvements in patient care, (4) Interpersonal and Communication Skills that results in effective information exchange and teaming with patients, their families and other health professionals, (5) Professionalism as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principle and sensitivity to diverse patient population. The study was to find out the perception of the medical students on the lecturers' teaching competence in the Block Evidence-Based Medicine in 2008. Data were gathered using questionnaires with Likert scale (totally not agree, not agree, rather agree, agree, and fully agree). The results showed that 14% of the medical students totally did not agree or not agree with the relevance of topics given in the Block; 23% totally not agree or not agree with the learning out comes stated in the Block; 21% totally not agree or not agree with the self-assessment items given in the Block. Based on the study result we conclude that it is advisable to make revision and improvement of the review topics and learning tasks of the Block Evidence Based Medicine Module.

Key word
Lecturer teaching competence, student perception and evidence base.

ABSTRACT NUMBER: PE 5
Effectiveness of National Sexual and Reproductive Health Training Programs in increasing knowledge among participants

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Background
Sexual and Reproductive Health (SRH) is an important part of any healthcare system. This importance was highlighted during times of crises in the north of Sri Lanka.

Following the training of trainers course from International Planned Parenthood Federation's SPRINT Initiative on incorporating SRH into humanitarian response, Health Emergency and Disaster Management Training Centre (HEDMaTC), Faculty of Medicine, University of Peradeniya, Sri Lanka organized five National Training Courses in Integrating Sexual and Reproductive Health Services in Crises in collaboration with UNFPA and the Ministry of Health Sri Lanka. Goal of the training was to increase knowledge and coordination skills in SRH and enable participants to face the SRH challenges in managing health emergencies and disasters. The objective of this analysis was to check whether the SRH programs have achieved the objective of increasing SRH knowledge among participants

Methods
Five National SRH programs were conducted during the 2009 and 2010 biennium. The target groups were medical officers of maternal and child health (MO/MCH), MO/planning, regional epidemiologists, academic staff of National Universities, tutors of primary health care basic training centres, staff of United Nations agencies, International and national Non Governmental Organizations, Ministry of Health, Family Health Bureau, Epidemiology Unit and Health Education Bureau.
A pretest and a post test of SRH knowledge were conducted in each program. Tests were scored from 0 to 100. Scores were compared using student's t-test.

Results
There were 117 participants in all 5 programs. Mean pre-test score was 69.5 and post-test 86.1. Overall the score had improved by 16.5 ($p<.001$). All 5 groups showed significant improvement in knowledge. The highest improvement from 65 to 98 ($p<.001$) was shown by participants of the 2nd SRH program.

Conclusion
The National SRH programs have been effective in improving the SRH knowledge among the different group of participants.

ABSTRACT NUMBER: PE 6
The effect of ethics education for the researchers related to Xenotransplantation

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There are a range of complicated issues related to xenotransplantation research, such as a possible outbreak of new/zoonotic infection, violation of individual's privacy and harm to animals (especially, nonhuman primates) which are used for experiments. Therefore, research

groups, academic institutions, international organizations such as UNESCO (United Nations Educational, Scientific and Cultural Organization) have been making concerted effort to encourage researchers to conduct the research with ethical consideration. Since 2004, xenotransplantation researchers and doctors from Xenotransplantation Research Center (XRC) have received the education regarding xenotransplantation-related ethical issues, for more than twice a year each. Their attitudes toward xenotransplantation were assessed in 2004, 2007 and 2010.

The objective of the study is to assess the changes in perception of xenotransplantation issues and the other aspects of education. Furthermore, this study aims to find a possible way of ethics education for xenotransplantation-related researchers. From 2005 until now, we provided Ethics Education for Researchers for eleven times. In terms of educational contents, we have dealt with law and regulation seven times, ethical issues nine times, ethics of animal research five times and laboratory management and ethics ten times.

To the question asking justifiability of xenotransplantation research, 100 percent of respondents answered 'Yes, it is justifiable' in 2004. However, the proportion of positive response decreased to 90.9% in 2007 and 86.2% in 2009. The proportion of respondents who considered 'the risk of zoonosis' and 'lack of established legal framework' as the first-priority project has increased. The respondent's preferred educational method was the 'case-based study'.

After receiving Ethics Education for Researchers, researchers tended to be more conscious about various aspects of xenotransplantation research rather than having blind faith. Hence, we suggest that it is necessary to provide mandatory education based on a particular research subject and various educational methods.

Keywords
Xenotransplantation, Researcher, Ethics Education, Effect of Education

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ABSTRACT NUMBER: PE 7

A novel curriculum evaluation tool to compare the outcomes of different medical curricula

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Background
There is no 'prescribed' curriculum evaluation tool in medical education. However, evaluation tools have evolved incorporating institutional needs. After ten years of existence, medical curriculum of the Faculty of Medical Sciences of University of Sri Jayewardenepura (FMS/USJP) has changed its curriculum form discipline-based to system-based (more integrated) curriculum without a proper evaluation. The main objective of this study is to develop an evaluation tool which can be used to evaluate the traditional and new medical curriculum of the FMS/USJP and explore any changes in student outcome.

Method
Evaluation tool was developed by selecting outcome evaluation measures which are independent of the intervention made. Evaluation was conducted by employing quantitative and qualitative methods. Two major outcomes were selected to represent institutional and employer needs. The tool was piloted and then one entire batch (95/96) of intern House Officers (HOs) (n=135) and their respective supervisory consultants (n=83) was sampled.

Results
With regard to the Institutional Objective (IOs), the overall questionnaire score was slightly higher when HOs rating themselves, 56.1% (112.1/200) than that of the consultants rating on HOs performances, 49.4% (99.8/200). Out of the ten areas identified, area of "professional values, attitudes and behavior" obtained the highest score both by HOs (62.5%) and consultants (60%). HOs (42.5%) and consultants (37.5%) secured the least for the area of "critical thinking and research". Similarly, the overall average competency of management of common health problems was >5 (10 point scale). Interview-in-depth which revealed the strengths and weaknesses of the curriculum is useful in subsequent triangulation process of data interpretation.

Conclusion
The evaluation tool gives the HOs and consultant's perspective on how the HOs achieved the outcomes of the curriculum. It also identified the strengths and weaknesses. This baseline data can be used to compare the impact of new curriculum when the same tool is used in future evaluation studies.

ABSTRACT NUMBER: PE 8

Klang Valley public's perception of the use of Chinese Medicine for the promotion of health and treatment of diseases

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Introduction
Chinese medicine, introduced into Malaysia by the Chinese immigrants has seen a surge in popularity worldwide as a complementary form of healthcare. The Malaysian government has introduced acupuncture and Chinese herbal remedies to complement healthcare in 8 public hospitals to date and will continue to expand these services due to increasing demand by the public.

Objective
To investigate the perception of members of the public in Klang Valley on the use of Chinese medicine (CM) for the promotion of health and treatment of diseases.

Methods
A validated, semi structured questionnaire, developed in-house was administered to 303 respondents (57.3% females, 42.7% males) consisting of 60.0% Chinese, 20.4% Malay, 15.6% Indian and 3.7% others) at public areas (transport hubs, IMU public talks) and IMU general staff by convenient sampling. The study was approved by the IMU Research and Ethics Committee. Data was analysed using SPSS (version 16) software for analysis of variance (ANOVA), Student's t-test, and linear regression. Values of various racial groups were compared and the difference considered significant if the p value was less than 0.05.

Results
The mean knowledge and perception scores of the 303 respondents were 34.6% (poor) and 57.2%) (moderate), respectively. There were significant differences on the mean knowledge score and mean perception score among different races, with the Chinese having highest mean knowledge score and mean perception score. Linear regression analysis also showed that self-evaluated knowledge and perceptions towards CM were significantly and positively correlated with knowledge on the use of CM. Between 50 to 60% of the respondents mistakenly believed that CM could effectively treat acute serious conditions like heart attack, asthma, stroke, viral or bacterial fever and food poisoning, indicating that the public needed more education on the extend of usefulness of Chinese medicine practices. The respondents rated themselves below average in knowledge of the delivery system of Chinese Medicine. Majority of them believed that some Chinese medicinal herbs were safe and effective.

Conclusions
The majority of the public have favourable perceptions toward CM, welcoming the implementation of Chinese medicine practices in public hospitals. They also supported the government's move to control the standard of education for Chinese medicine and the registration of Chinese medicine practitioners.

ABSTRACT NUMBER: PE 9
Klang Valley University students' perception of the use of Chinese Medicine for the promotion of health and treatment of diseases

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Introduction
The use of Chinese Medicine (CM) to complement conventional healthcare among the Malaysian public is growing, many resorting to it in debilitating or terminal illness. Malaysians spend 3 to 4 times more on herbal products, compared to conventional medicine. In response to this, the Malaysian government has started to promote acupuncture and Chinese herbal remedies as complement to conventional treatment of certain terminal illnesses in some of its hospitals.

Objective
This study explored the perceptions among university students in the Klang Valley on the use of CM in the promotion of health and treatment of diseases.

Methods
A 5-part questionnaire developed in-house was self administered by university students in medicine, pharmacy, dentistry, nursing, science and arts from International Medical University (IMU), University Malaya [UM] and University Kebangsaan Malaysia [UKM]. Each group had a sample size of 100. The study, approved by the IMU Research and Ethics Committee used SPSS (version 16), analysis of variance, Student's t-test, and linear regression to analyse its data. Differences between groups were considered significant if $p<0.05$.

Results
The total knowledge mean score was 24 made up of knowledge on the history, practice, education and use of CM. The highest knowledge related mean score was found in pharmacy students [10.55/24; 44%], followed by nursing students [10.14/24; 42.3%], knowledge related mean score for medical 9.27/24 [38.6%], dentistry 9.42/24 [39.3%], science students 9.95/24 [41.5%] and art students [9.29/24; 38.7%].The total perceptions mean score on CM was 15. Pharmacy students showed highest perception mean score on CM of (10.13, 67.5%) followed by science 9.05 [60.3%], art, 8.35 [55.7%], nursing 7.54 [50.3%], dentistry 7.41 [49.4%], and medical students (6.88, (45.9%). There is also a positive correlation between the knowledge on CM and perception towards the use of CM. Students rated themselves better on their knowledge of the theory of Yin and Yang, herbal remedies and therapeutic exercise compared to other CM delivery modes. Most students in all groups agreed that only some herbs were safe and effective and were backed by scientific evidence. Most agreed that only some of the Chinese medicine practitioners (CMPs) were fully qualified, the standard for their education should be controlled and all CMPs should be registered by the Ministry of Health.

Conclusion
University students have limited knowledge on CM and its practices students from Klang valley universities.

ABSTRACT NUMBER: PE 10
EBM knowledge of medical students

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Background
Evidence-based Medicine (EBM) was taught in various clerkships during the third to sixth year of the clinical curriculum. This study assesses the EBM knowledge of medical students on their near-graduation.

Methods
Sixth-year medical students sat the comprehensive modified essay question examination (MEQ) in the fourth quarter of their final academic year. There were eight examination items including various disciplines and subjects shortlisted by the Medical Education Evaluation Committee. The EBM subject was one of the selected items.

Results
The minimum passing level (MPL) of the EBM MEQ item was set at 60 (total 100). Sixty-two percent of the students (80 out of 129) met this passing score. The mean, standard deviation, maximum and minimum score were 61.3, 11.7, 84 and 29 respectively. The percentages of students' scores which exceeded the MPL of various domains were as follow: hypothesis generation, 95; data gathering, 94; hypothesis refinement, 60; management, 65 and factual knowledge, 47.

Conclusion
EBM knowledge of medical students was unsatisfactory. More intensive teaching and learning of evidence-based medicine should be emphasized. The students overall are strong in hypothesis generation and data gathering, but weak in factual knowledge. There is a need to improve students' skills in hypothesis refinement, patient management and factual knowledge base.

ABSTRACT NUMBER: PE 11

Midterm evaluation of a research methodology course compared with the students' performance in the research methodology midterm exam

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Introduction
Mid Course evaluation is an important tool for evaluating students' perception of the course. Despite the importance of course evaluation it has to be kept in mind that biased results can be a problem. Course evaluation would be reflected better if related to students' exam results. Objectives of the study were to find out students' problems half-way during the course to make timely changes; and to check the reliability of the results that came up in the evaluation by comparing the students' midterm exam grades to their perception of the course.

Methodology
Questionnaire was administered to third year undergraduate medical students, on research methodology course. Questionnaire was administered halfway during the course and focused on four domains: students' learning outcomes evaluation, curriculum content evaluation, instructor evaluation, and course material evaluation. Answers were graded on the Likert scale. The questionnaire included one open-ended question, "what would you like change in this course?" Students' results in the midterm exam were grouped into grades and compared to the mean results obtained in the four domains of the questionnaire.

Results
61.3% agreed course contributed to their academic skill. 64.3% agreed course guide provided clearly written objectives. 81.4% agreed instructor made good use of interactive technology. 52.8% said reference books were not easy to find. Open ended question showed that 83% wanted the course shifted to clinical years. The mean results calculated for each of the four domains in the questionnaire showed that learning outcome evaluation was average, curriculum content was good, instructor evaluation was good and course material was average. Students' results were grouped into grades, 27.5% received "A", Excellent; 20% received "B", good; 25% received "C" Average; 15% received "D", poor; 12.5% received "F", very poor.

Conclusion
Course material evaluation showed that reference books were not available in the library. Instructor evaluation was good. Results of students showed that 27.5% got excellent results, 20% got good results and 25% received average results. Their perception of the course and instructor was good and this was reflected by the percentage of students who scored excellent and good results in the midterm exam.

Recommendations
Reference books should be made available in the library. The course shifted to the clinical years.

ABSTRACT NUMBER: PE 12

Quality assurance in the delivery of vertically integrated curriculum

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Background
Integrated learning is slowly gaining grounds in developing world. We, in the physiology department implemented the vertically integrated teaching methodology in the year 2010. Across this implementation, one of the most challenging features was to assure and improve quality. We introduced various quality assurance methods for effective implementation of this vertically integrated curriculum. We would like to share the model utilized for this purpose in this article.

Materials and Methods
For effective planning, delivery and assessment departmental meetings were held on regular basis. Faculty members were given agenda for each meeting. Meetings covered learning objectives, determining learning strategies, developing integrated assessments (formative/summative), peer review, post-hoc analysis of results, review of feedback and future strategies to improve. Each faculty member presented their output in faculty forum for broader input and refinement. At the end of the year, feedback of the students was taken in the form of a questionnaire.

Results
Above mentioned processes helped in better integrated curricular delivery and at the same time contributed towards faculty development in medical education. Hands on training to faculty were provided through various workshops regarding lecturing skills, microteaching, principles of adult learning, Integrated Course Design, facilitating small group sessions, creating integrated MCQs, analyzing MCQ responses. All these activities resulted in adjustments in subsequent delivery of the curriculum, better curriculum planning and management.

Conclusions
The above mentioned tools helped to identify the deficiencies in the modular delivery and assessment. Recommendations of the team helped in overcoming these shortcomings and better future planning to overcome these problems. Our "hands on" model also educated most of the faculty members and motivated them to improve quality and produce competent graduates who are capable of meeting the challenges of the medical profession.

ABSTRACT NUMBER: PE 13

Implementation of vertically integrated methodology for teaching and assessment of physiological concepts

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Background
Under the existing system of undergraduate curriculum, teaching was done in a non integrated manner. Our objective was to develop and implement a vertically integrated curriculum for teaching physiology to 2nd year Medical students, which would focus on teaching and assessment of physiological concepts via integrated learning using multiple teaching methodologies. It also aimed to assess the feasibility for the continuation of this vertically integrated curriculum for the students of University of Dammam in the coming years.

Materials and Methods
Regular departmental meetings were held for discussion and refinement of the case scenarios used for vertical

integration, developing integrated assessments (formative/summative), analysis of the vertically integrated MCQs, post-hoc analysis of results, review of feedback, future strategies to improve. Learning strategies used were large group interactive sessions (LGIS), problem based learning (PBL), small group discussions (SGDs), and practical sessions. Student feedback questionnaire was administered at the end of module.

Results
85% of the students agreed that teaching physiological concepts in integration with clinical scenarios is a better approach than traditional teaching. 99% of the students responded that integrated approach makes learning and understanding easy. 80% of the students think that assessment of the physiological knowledge via clinical scenario based MCQs is a better way of judging the knowledge of the students. 76% of the students agreed that this mode of teaching and assessment motivated their critical thinking. 90 % of the students indicated that this model of teaching would be helpful to them in future for better understanding of clinical concepts and 92% of the students favored the continuation of this integrated approach in future.

Conclusion
In conclusion students well received the idea of delivering physiology curriculum via the integrated means and favored its continuation in the future. So integrated curricular delivery can be implemented successfully in undergraduate medical education.

ABSTRACT NUMBER: PE 14
Patients' views and satisfaction of caring behaviors shown by nurses in male and female medical wards at a General Hospital in Malaysia.

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Objectives
The purpose of this research was to assess the nurses' caring behavior as perceived by patients and the patients' satisfaction towards the behaviors.

Methods
A convenience sample of twenty female and twenty male patients were given a self-administered questionnaire based on convenience sampling. Twenty questions were developed using Jean Watson's ten carative factors which indicate caring. There are two questions for each carative factor. The last question in the questionnaire referred to the patients' satisfaction. The inclusion criteria were patients who could speak and read Bahasa Malaysia or English, aged twenty and above, stayed in the medical wards for more than twenty-four hours and agreed to participate in the research.

Results
Data analysis using descriptive statistics revealed that the three most important carative factors perceived but the patients were the formation of a humanistic-altruistic system of values, instillation of faith-hope and assistance with gratification of human needs. In general, the patients were satisfied with the caring behaviors portrayed by the nurses.

Discussion
This study had similar findings to other studies, where assistance with gratification of human needs, formation of a altruistic system of values and instillation of faith-hope were identified as the highest caring behaviors practiced by the nurses. However in relation to the cultivation of sensitivity, the findings differed where it was found to be practiced more in previous studies, compared to that which is practiced in the hospital setting of this research.

ABSTRACT NUMBER: PE 15
The library: Is it supportive to an integrated curriculum?

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Introduction
Library plays an integral part in the medical school life of students. The aim of this study was to evaluate its usage by medical students and to identify factors to improve its role in integrated curriculum.

Methods
A questionnaire based survey was carried out among all students of Shifa International Medical College. Data was analyzed using SPSS. The survey focused on the pattern and purpose of library usage by medical students. It also includes the frequency of students consulting library staff for help, and factors which may improve its usage among students and play its effective role in new integrated curriculum.

Results
Most students from clinical classes visit the library more frequently, where they spend their time usually for self study. They rarely consult library staff and were not aware of citation index. Most of them agreed upon improving the library by increasing staff, computers and journals, onsite training for internet research. They also suggested that the addition of discussion areas in library would be useful.

Conclusion
As the medical school environment becomes increasingly technology driven; as a result of integration, students will require information management and informatics knowledge and skills to function effectively.

ABSTRACT NUMBER: PE 16
To be or not to be: Engaging health professional teachers in medical education research

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Background
Medical education research (MER) is a relatively new field for health professional teachers. Although new, MER has rapidly developed, as evidenced by increased scholarly publications and changes in academic structure whereby resources are allocated to a medical education unit. However, there are still concerns whether teachers are motivated, trained or supported to venture in MER. It is worthwhile then, to gauge the perception of health professional teachers towards MER, and identify problems as well as provide solutions to engage teachers in high quality MER.

Methods
Exploratory study to gain insight on faculty perception towards MER. IMU teachers who attended a half day workshop on research methods for medical education was asked to participate by filling an open ended questionnaire. Participants were asked to describe in their own words the reason for their interest in MER, which of their skills would help them in MER, which areas on MER would they participate in and need support. The perception (n=15) were analyzed qualitatively and grouped into themes.

Results
The respondents included clinicians, dentists, pharmacists and biomedical scientists who were teaching in various programme. Regarding interest in medical education, three themes emerged i.e. improvement of student learning, curricular responsibility and learning about another field of research. For skills that would help in MER, most participants thought their previous scientific or clinical training would be useful, however there were participants who felt MER was new and required different analytical skills. For areas of MER which they would like most support in, 3 themes were recurrent, research design, data evaluation (statistical analysis) and communication (publishing, presenting). Most participants expressed interest a wide variety of MER (assessments, curricular development, professionalism etc) while there were participants who were undecided.

Conclusion
The findings suggest that although intrinsic motivation to participate in MER exists, the lack of training in MER maybe the barrier. The various themes identified from this exploratory study can guide faculty development and from the basic to develop in depth explanatory studies for improving MER.

ABSTRACT NUMBER: PE 17
What needs to be changed in the medical school? The clinical teachers' perspective

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Background
Clinical teachers' perceptions and actions influence their teaching, how their students' learn and the clinical learning environment. Clinical teachers are continually developing strategies to improve student learning in the clinical environment and consequently have opinions in terms of what needs to be modified to improve the teaching and learning nexus. The purpose of this paper is to discern the areas that clinical teachers feel need to be changed by the University to ensure a more optimal learning environment for their students. The research question was, "what are the views of clinical teachers in relation to what needs to be changed in the medical school?"

Methods
Two hundred and seventy one commentaries were collected from clinical teachers (50% of the work force associated with this medical school) teaching fourth and fifth year students from the University of Auckland School Of Medicine. These teachers expressed their perceptions in response to an open-ended question, 'If you could change three things about medical school - what would they be?' To derive meaning from the open-ended comments the Colaizzi's phenomenological method was adapted.

Results
The clinical teachers' commentaries indicated the main themes were in areas of curriculum support, time management issues, interpersonal and intercultural interactions, assessments, resources, management issues and professional development.

Conclusion(s)
One of the overriding issues is relational distance between the actual clinical learning environment and the University. Some of the more salient comments were made in relation to the actual clinical environment rather than the medical school. The issues that need to be addressed appear to be in the areas of: (1) time and resource management, (2) functioning as clinical teachers in conjunction with the pressure of work and increased clinical service, (3) delegation of human resources, (4) deriving a well-designed curriculum and generating learning objectives and assessments that are well aligned between the clinical environment and the University, and (5) working with clinical teachers in terms of the initial selection criteria of students.

ABSTRACT NUMBER: PE 18
Questionnaire on questionnaires: An assessment of perceptions of respondents to questionnaires

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Background
In an educational milieu, "questionnaires" are widely used tools. They are fairly easy to handle with regard to data processing. They reduce bias due to absence of verbal or visual clues influencing the respondents. But the characteristics of an 'ideal' questionnaire are still unclear. This study aimed to identify the general perceptions of respondents to questionnaires.

Methods
Paper based questionnaires were distributed randomly to 88 members of the health sciences university. Ten questions in the survey questionnaire aimed to identify the characteristics of an 'ideal' questionnaire. 30.4% faculty, 30.4% M-Pharm students and 39.2% medical students participated.

Results
100% response rate was achieved (n = 88).
63.6% of participants demonstrated preference for online questionnaires ($p = 0.085$). 88.6% of participants unconcerned with the length of the questionnaire. Semesters 3, 4 and 5 demonstrated significantly different perceptions with regard to responding to lengthy questionnaires. 44.3% of participants identified the appropriate time frame for questionnaire completion as < 5 minutes, while 40.9% felt that 5 to10 minutes duration was acceptable. 54.5% of participants were not always inclined to participate in questionnaire based surveys and did not read thoroughly sometimes. A very significant ($p = 0.002$) was obtained when this parameter was stratified between faculty and medical students. 71.6% demonstrated willingness to participate despite lack of interest in the subject under consideration and a similar percentage showed inclination to complete questionnaires despite having other important commitments.

Conclusion
The length of the questionnaire and the topic did not impact the response rate. Participants preferred to complete a questionnaire within 10 minutes. Online questionnaires were preferred. A large percentage of participants did not read thoroughly sometimes. Does this response pose a major debate to our assumption that questionnaires are fairly reliable complementary tools to assess objectives?

ABSTRACT NUMBER: PE 19

Assessment of midwifery students' and tutors' satisfaction of logbook clinical evaluation method in Mashhad Faculty of Nursing & Midwifery

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Background
Medical students are required to be experienced in performing core procedures, including those which are listed in the logbook. The use of logbooks in the education of undergraduate medical students is not well-established. Traditionally; logbooks are used as a means for students to document their activities rather than an interactive vehicle between students and tutors. This article assesses midwifery tutors' and students' satisfaction of log book as a clinical evaluation method.

Methods
In this descriptive study which occurred in academic hospitals of Mashhad University of Medical Sciences (1389), 34 undergraduate midwifery students and 5 tutors participated. The students were evaluated by logbooks, in labor wards. The participants were assessed for a maximum of 1week after finishing the training period, by "assessment questionnaire of satisfaction from logbook". The questionnaire include: 9 fields and 23 statements in Likert format statements. It was approved by Content Validity Index (CVI= 0.8) and Cronbach's alpha coefficient= 0.96. Data were analyzed by descriptive and analytic tests.

Results
Both tutors (%76.1±8.0) and students (%62.7±15.4) were nearly satisfied with logbook method (Mann-Whitney test, P=0.089), but tutors' satisfaction was higher. The most satisfactory domain of log book use were "fairness", %88.0±10.9 in tutors and "match with learning objectives", %71.1±14.9 in students. And the least one was "log book makes stress", both in tutors (%48.0±22.8) and students (%54.4±26.7).

Conclusion
Tutors agree to the use of logbook, and the students had no comment. Tutors disagree that logbooks cause stress, but the students had no comment again. But tutors and students had the highest agreement (rather agree) about fairness and matching with learning objectives, respectively. In comparison to different articles about students' dissatisfaction of traditional clinical evaluation methods, this acceptance rate is good. However, we can promote it by combining log book with other modern clinical evaluation methods.

ABSTRACT NUMBER: PE 20

Modern Clinical Evaluation Trends: Assessment of Performance in Practice

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Background
Evaluation is an integral and important component of learning in any educational program. Foundation Committee of the Academy of the Medical Royal Colleges produced a document in June 2005 setting out a new curriculum for medical graduates, with incorporated modern assessment tools. The foundation program introduced standardized validated assessment tools including Direct Observation of Procedural Skills (DOPS), portfolios; Case based Discussions (CbD) and Mini-Clinical Evaluation Exercise (Mini-CEX). This study to review whether these assessment trends can evaluate students' performance indeed.

Methods
In order to achieve this goal, several articles were investigated with extensive search in books and online electronic resources including: Science Direct, Pub Med, Proquest, Google and etc. Among the modern methods in clinical evaluation, Direct Observation of Procedural Skills (DOPS), and Mini-Clinical Evaluation Exercise (Mini-CEX) were selected due to the relative inclusiveness of this method in the evaluation performance domain.

Conclusion
The major issue in the use of these methods is that they estimate the closest evaluation to the real performance. There are several papers indicating that both methods evaluate what should be assessed by providing feedback through direct observation in real environment, not just theoretical issues or people's assumptions. Some competencies which are assessed by these methods include: interview and communication skills, general knowledge of special performance, informed consent and technical ability. However, these methods also have some disadvantages, like any other method, including being time-consuming and precise. So prioritization, according to final objectives, is the first step in the administration of any evaluation method, particularly in the clinical environment.

ABSTRACT NUMBER: PE 21

Student's feedback in improving learning in community medicine

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Background
Community Medicine is taught for the longest duration in the medical curriculum in India. It is taught from 1st semester till 7th semester and again continued for two months in internship. Therefore this subject has earned a reputation of being dull, uninteresting and difficult. This study was planned to identify the learning problems of students' especially in practicals as well as in teaching curriculum.

The Objectives are to
Analyze feedback obtained from students regarding practical training and teaching curriculum and to incorporate suggestions given by the students in the teaching curriculum for improving their learning.

The research question was,
What are the difficulties of medical students in learning the subject of Community Medicine (Theory and Practical)

Methods
A detailed questionnaire covering different aspects of curriculum and practical exercises was prepared. Students were asked to give feedback regarding theory curriculum and various practical exercises. Feedback obtained from students was analyzed quantitatively and qualitatively

Results
A total of 69 M.B.B.S Final Prof Part-1 students participated in the study. Community posting practical, as a whole were evaluated as satisfactory by the students. Amongst community posting practical Information Education and Communication study and Museum study exercises were identified as problem areas. Family study was evaluated as satisfactory. Unavailability of equipment (BP instrument and weighing machine) in the field area was identified as problem by the students. Long visit exercises were evaluated as good. Majority of students (84%) found the lectures held in the first semester as irrelevant and not useful. Most of students (64.8%) found that the lectures were easy to understand and able to provide insight into the subject.

Conclusions
With the help of student feedback, visible and invisible problem areas were identified. Valuable suggestions were provided by the students through open ended questions. Planning for changes in the teaching curriculum was done accordingly.

ABSTRACT NUMBER: PE 22

Students' perspectives on feedback given regarding their performance in pharmacology examination at Melaka Manipal Medical College (MMMC), India

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Background
Feedback plays a key role in medical education in promoting student learning.

Objective
The present study was undertaken to investigate students' perspectives on feedback given regarding their performance in pharmacology examination at MMMC.

Methods
A feedback was given by faculty to a batch of MBBS students regarding their performance in a pharmacology examination after they had gone through their evaluated answer scripts. During the process, the guidelines for offering feedback adapted by Ende J, 1983 for use by teachers and students of clinical medicine was followed. The common mistakes made by the students in answering essay and practical questions, the expected answers and the marking scheme were discussed during the session. Students' perspectives regarding the given feedback were collected after a subsequent pharmacology examination. The students (n=138) were asked to respond to a validated questionnaire. Frequency analysis of responses to close ended questions was done by using SPSS version 16. Students' responses to open ended questions were tabulated in the decreasing order of their frequency of appearance.

Results
73% of students felt that feedback enhanced their learning whereas 74% of students opined that feedback helped them in the preparation of subsequent pharmacology examination. 63% of students felt that the examination was more trustworthy and objective. Students also opined that their performance in the examination improved as feedback made them aware of better approaches to answering questions. Student felt that feedback not only improved their confidence in answering but also helped them to manage time effectively during examination. They also opined that feedback helped them to understand the complexity of learning process which in turn improved their learning.

Conclusion
Timely feedback given to students regarding their performance in an examination can improve their learning and performance in subsequent examinations.

ABSTRACT NUMBER: PE 23

Social self-perception of learning environment by students in a new medical school in Saudi Arabia

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Background
To assess the social perception of undergraduate students of the educational environment in a new governmental Saudi Medical School.

Method
All medical students enrolled in the academic year 2009/2010 self-completed a validated Dundee Ready Education Environment (DREEM) questionnaire consisting of 7 items covering social self perception (SSP) of the educational environment scored on a 0-4 Likert scale. Data were analysed using SPSS version 17. Mean scores of items were compared according to age, gender and class level using appropriate analysis of variance tests.

Results
The Questionnaires was completed by [237] medical students [85 per cent] in the academic year 2009/2010. Mean score of the seven items studies are shown in table 1. The mean total score of social perception was 2.28 (57%) out of a maximum of 4 points, indicating relatively low satisfaction with the perceived environment. There were no individual areas of excellence (item scoring >3.5 points > 87.5%). I am too tired to enjoy the course score was only 1.41 (35.2%) and having good friends in college score was 2.08 (57%) out of 4 points indicating cause for concern. There were significant age, gender and class differences in the scores.

Conclusion
This study identified areas of concern of social self-perception of the education environment by students. Corrective measures need to be considered.

Table 1 Mean score of Social Self Perception items

Items	N	Minimum	Maximum	Mean	Std. Deviation
I have good friends in the school	233	0	4	2.08	1.188
There is a good support system for students who get stressed	232	0	4	2.61	1.160
I am too tired to enjoy this course¤	**233**	**0**	**4**	**1.41**	**1.051**
I am rarely bored on this course	235	0	4	2.75	1.045
My accommodation is pleasant	235	0	4	2.42	1.002
My social life is good	231	0	4	2.27	1.099
I seldom feel lonely	230	0	4	2.43	1.126
Mean SSP	222	1	4	2.28	.477

ABSTRACT NUMBER: PE 24
Desired attributes in a Faculty of Dentistry as perceived by students: A case study from Pakistan

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Background
Teachers' evaluation through students' ratings is one of the growing concerns in Pakistani higher education system. Higher Education Commission Pakistan, the sole governing body has provided a readymade feedback form to all the universities for conducting teachers' evaluation through students. The contents of this suggested feedback form show that some of the areas do not seem to be fitting/ applicable in Pakistani context. The current study has been designed to find out students' perception about the desired attributes among the teaching faculty of a dental institute. The study provides useful data for developing tailor made feedback form for medical and dental colleges in Pakistan.

Description
A questionnaire was designed containing the contents from different local and international feedback forms. And students were asked to provide their own rating for each attribute on a scale of highly desirable to least desirable. The questionnaire also aimed to collect students' perception toward the desired teachers' attributes. All the students of a dental college of Public Sector University were given the questionnaire to fill.

Conclusion
The results show that students have displayed a variety in the responses and it is quite evident in the data that though many heads are highly desirable in our local context as well, students have also included some of the features which are given least or no weightage in international adopted feedback forms. It is therefore recommended that the findings of this study can be useful to design a tailored feedback form for teachers' evaluation in medical/ dental universities in Pakistan.

ABSTRACT NUMBER: PE 25
The evaluation of attitude of dentistry students toward their field and future career in the international branch of Shiraz University of Medical Sciences

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Background
Allport (1966) defines attitude as "individual mental processes which determine both the actual and potential responses of each person in the social world". The student's attitude towards their field of education and future career has a significant role in health politics and development of society. This study with the goal of evaluating the attitude of the first year dentistry students toward their career and field was designed.

Methods
This study as a descriptive-analytic one was conducted on 66 students first year of dentistry. A reliable and valid questionnaire including 14 Likert scale questions were and used for evaluating students' attitude. At the end, the data was statistically analyzed by SPSS ver17 software.

Results
Data attained from the study showed that 89.39% of the students have chosen their field with complete knowledge, and 72.72% of them suggested their friends to choose this field. 83.33 % of them believed graduating from this field will serve them with high income as a dentist. 86.36% of them declared that they are enthusiastically interested in the dentistry field. At the end, 57.57% of the students believed that the time duration for educating in this field is proper. The mean and standard deviation (SD) scores of the students' attitude toward their future career was 74.24%, while the mean and SD of the students attitude was significantly different between female and male students ($p<0.05$).

Conclusions
Student's interest and positive attitude toward dentistry field can the cause of educational improvement and career success in their field. The result of this study shows that interest and attitude of students toward their future career, is positive. So there is a huge need for planning more precisely in the field of education and research. This will be a proper step in improvement of the dentistry field in our country.

ABSTRACT NUMBER: PE 26
Evaluation of new method of primary-orientation of new-comer residents of general surgery at Shiraz University of Medical Sciences

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Background
Now the educational systems of general surgery residency in most universities in Iran are like that from the very first day of assistance, the surgery assistants are responsible for the therapeutic and educational duties. This process notably

has legal and mental risks for both assistants and patients according to the nature of hospitals, kind of patients referring to the hospital and the skills of complier person. To solve this problem in the other universities and valid educational centers some solutions have been suggested and implemented. General surgery ward of Shiraz University of Medical Sciences (SUMS) has tried using a method to improve the problem with the aim of study and evaluation of this modern educational method.

Methods
This study was conducted experimentally on the nine new-comer assistant in 2010. In the first month of admission to the surgery ward these assistants were acquainted with the current procedure of surgery and treatment of emergency surgery patients only as a single observer and trainee without any special responsibility by the existent administrative staff. During this period they were acquainted completely with the administrative and physical hospital environment. Also, some clinical and theoretical classes were held in the form of workshop on cognition of current therapeutic and educational system in the hospital, educational problems of residents of general surgery, diseases of the emergency surgery and necessary skills for the management of emergency patients by the professors of general surgery ward within 3 days of the first week of the survey. At the end of the survey the student's comments from this experience were used as means for validity and reliability (=0.81). Also, the students were evaluated in this study by pretest and post test and the outcomes were analyzed statistically with the SPSS.16 software .t-pair and independent statistic test.

Results
In this survey, 100% of the students say that, this experience was effective to increase their knowledge amount of the therapeutic regulations of general surgery residency. 88.8% said it increased their knowledge of their workplace hospital and dominant regulations of emergency surgery. 100% of the students agreed with the implementation of such experiences in the near future. 66.6% of students believe that this method must be thought only by the professors of general surgery and not by the senior residents. Also, the outcomes of pretest and post test showed statistically significant difference (p=0.00).

Conclusion
As it was told, new-comer general surgery residents with therapeutic responsibilities caused vast damages in the therapeutic level only because of not being equipped with the necessary knowledge. Results of this study show that according to the native situation and study-work conditions in IRAN, many therapeutic risks can be prevented by this method.

ABSTRACT NUMBER: PE 27

Factor Structure of the Malay version of the Perceived Stress Scale among medical students

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Background
The Perceived Stress Scale (PSS) created by Cohen et al (1983) is a validated and reliable instrument to measure a global level of perceived stress. This study aimed to assess the internal consistency and factor structure of the Malay version of PSS for use in medical students.

Methods
PSS is a 10-item scale that assesses perceived stress over the previous month. Each item is on a five-point Likert format (0=never to 4=very often). Scores range from 0 to 40, with higher scores indicating greater stress. The original English version of PSS was translated and back-translated into Malay language. The Malay version was distributed to 242 students of BMS (Bachelor of medical science) in MSU (Management and Science University). Data was analyzed using SPSS version 16. Cronbach's alpha was used to test internal consistency of the questionnaire. Exploratory principal component factor analysis with Varimax rotation was performed .Correlation analyses, Kaiser-Meyer-Olkin (KMO) and Bartlett's test of sphericity and scree test were used.

Results
Analyses showed that KMO value was acceptable (0.77) and the sphericity test was significant ($p<0.001$); therefore, sampling was adequate of and items were appropriate for factor analyses. Exploratory analyses of all 10 items yielded two factors with eigenvalues greater than 1. The first factor included six items and the second factor included four items. These two factors accounted for 57.8 % of the variance (38.3% the first factor and 19.5 the second factor). For all the items, factor loadings were greater than 0.65. Cronbach's alpha coefficients for the two factors were 0.85 and 0.70 respectively.

Conclusion
The Malay version of the 10 -item PSS showed acceptable internal consistency and its factor structure is similar to the original version. It is a useful instrument for measuring stress among medical students.

ABSTRACT NUMBER: PE 28

A Survey of medical technology curricula and careers of graduates in 20 national universities in Japan

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Background
In Japan, education for medical technologists had been performed in colleges of allied health sciences until the early 2000s when departments of health sciences were established in 20 national four-year universities. Moreover, graduate school programs have been established for master's degree (2008) and doctor's degree (2010) in all these universities. However, optimal curriculum for developing graduates who are capable of doing research and education as well as performing laboratory tests has not been established yet. To evaluate the present status and explore the future directions, we conducted a national survey.

Methods
In September 2009, survey questionnaires regarding school curricula and graduates' careers were sent to 20 national universities.

Results
All 20 universities completed the survey (response rate of 100%). The average number of teachers per university was 15.9 (professors 7.2, associated professors 3.7, instructors 0.5, and assisitants 4.6). The total amount of time for lecture and in-school training ranged from 750 to 1590 (average 1091) hours and from 600 to 1605 (average 1040) hours, respectively. As a result of the curriculum revision, the reduction of lecture hours was done in 10 universities recently. The average duration of on-site training and research training were 12.8 (median 12, range 8-16) weeks and 6.1 (median 6, range 3.5-12) months, respectively. PBL tutorial curriculum has been introduced in 8 universities. Among 2022 graduates from 20 universities between 2006 and 2008, 1247 (61.7%) were working in hospitals as medical technologists, 193 (9.5%) were working in medical institutes as medical researchers, and 45 (2.2%) were working as non-medical workers. The average numbers of graduate students per university were 11.9 (2006), 11.3 (2007), 10.2 (2008) for master's degree and 1.25 (2006) 1.36 (2007), 1.64 (2008) for doctor's degree.

Conclusion
The education system for medical technologists in Japan has been changing to develop multi-skilled professionals.

ABSTRACT NUMBER: PE 29

Evaluation of relationship between family social support and well-being in nursing and midwifery students.

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Background
Most student's entrance to university is combined with worry, tension and excitement the need for spiritual and family support is increased for the most students. In this period the need for spiritual and family support is increased, so we decided to research the relationship between family social support and well-being in nursing and midwifery students.

Methods
In this descriptive-analytic study, 180 students took part (95 nursing and 85 midwifery students) according their attendance in Azad university of Ghouchan. Sample selection form, demographic characteristic questionnaire, Procidano and Heller family and social support and General Health questionnaires (GHQ) were answered by students. Finally data gathering of questionnaires that without exclude criteria and statiscal measures were with one-way ANOVA and chi-square test.

Results
Findings showed that, 52% of students had good well-being and 46/3% of students had displeasing well-being. The mean family social support score was (30/9 ± 7/2). 8% of students had weak family social support. 28% of students had moderate, and 63/4% of them with good family social support, and Wilcoxon test showed midwifery students had significantly higher family social support than nursing students (P=0/004). ANOVA test showed, there was significant relationship between mean of well-being and mean of family social support. (p<0/001)

Conclusion
According to the results of this research more family social support shows with better well-being score. Therefore longitudinal researches in different course are recommended.

ABSTRACT NUMBER: PE 30

Evaluation of the implementation of competency-based curriculum at the Faculty of Medicine Andalas University - Padang

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Background
To increase the Indonesian doctors competence, since 2005 the faculty of medicine in Indonesia has gradually changed to competence-based learning methods. The length of study with this methods was 5 years and followed with internship program for 1 year. The Medical Faculty of Andalas University has implemented this method since 2004, thus becoming the first Medical Faculty in Indonesia to implement the Internship Programe for Indonesian doctors. Before 2004, Faculty of Medicine Andalas University has been through a few educational methods, starting from clinical-based education and, then the Core Curriculum of Indonesian Doctors Education I and II with the paradigm of Community Oriented Medical Education (COME). Various fundamental changes have been done in implementing competence-based curriculum, where the learning process with teacher-centered system has changed into a student-centered with the SPICES (Student-centered, Problem-based, Integrated, Community-based, Early Clinic Exposure, Systematic) principle.

Methods
To compare the different learning process using teacher-center before the year 2004 (conventional methods) with competence-based learning methods, it was evaluated based on the learning outcomes of graduates from the class of 2003 and 2004. The evaluation was done against the length of study, Cumulative Prestation Index and the results of the Indonesian Doctors' Competence Examination.

Results
Evaluation results showed that the length of study of the doctors with conventional methods, were from 5 years 9 months to7 years 2 months, while with competence-based learning methods were from 5 years 2 months to 6 years 4 months. Cumulative Prestation Index of the doctors with conventional methods were from 2, 47 to 3.36, whereas with the competence-based learning methods were from 2, 52 to 3.39. The results of Indonesian Doctors' Competence Examination showed that 89, 21% doctors with conventional methods passed at the first exam, while the doctor with the competence-based learning methods, 89, and 74% passed at the first exam.

Conclusion
The average length of study in both education methods was equal with the length of study from each programme. Indonesian Doctors' Competence Examination results also show no difference. In both methods, the average of Cumulative Prestation Index was significantly decreased with the length of study.

ABSTRACT NUMBER: PE 31

Simulator patient evaluation of student's attitude during the final Obstetrics & Gynaecology OSCE exam as an experiment for introducing attitude evaluation in the grading scheme of students' evaluation in future exams

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Introduction

Written exams are aimed at testing knowledge, whereas OSCE is aimed at testing clinical skill performance and competence in skills. The most difficult domain to be assessed is students' attitude. Student attitude is not usually assessed at the undergraduate level, unfortunately as a result there have been doctors graduating with bad attitudes both towards patients and colleagues. Medical doctors working in the teaching profession at universities can only role model the best attitude while dealing with both patients and colleagues. But at the end of the medical faculty, attitude is the only domain not assessed before graduation. The issue of how to assess medical students' attitude was always at the centre of attraction and discussion during exam meetings. The objective of the study was to design a questionnaire which can assess the attitude of the graduating students just to have an idea on how those doctors will deal with real patients in the real practice.

Methodology

A questionnaire was designed to be filled by simulator patients. The questionnaire had two parts, one part was simulator patient evaluation of the overall student performance; and part two, simulator patient evaluation of specific student performance. Answers were graded on the Likert Scale (1-5; 1 for strongly disagree, 5 for strongly agree). The mean results was calculated for each part of the questionnaire and graded on a scale of (excellent, good, average, poor and very poor).

The questionnaire was administered to simulator patients during the final OSCE for final year students. Simulator patients were shown the questionnaire before the OSCE and were trained to fill it. A questionnaire was filled by the simulator patient for each student in all stations that had simulator patients.

Results

Simulated patient evaluation of overall student performance showed that 79% of simulator patient agreed that students were well prepared for this type of exam. 85.5% agreed that students asked logical questions. 72.6% agreed that students followed the instructions properly. 46.7% agreed that students got agitated during the exam while 42% did not get agitated during the exam. 67.7% of students were confident. 74.2% agreed that students gave the feeling of good doctors. Simulator patient evaluation of specific student performance showed that 91.9% of students greeted the simulator patient in a good manner. 59.7% of students explained the procedure/examination briefly before starting. 32.3% of simulated patient agreed that students asked all the questions that the simulator patient was instructed to answer, while 14.5% were neutral about this fact and 40.3% disagreed to the fact that students asked all the questions they were instructed to answer. 59.7% of simulator patients disagreed that students were impatient for answers. 67.8% of students were confident about the problem the simulator patient was addressing. 48.4% of students thanked and wished the simulator patient well at the end, while 48.4% did not thank the simulator patient. The mean results were calculated and results for overall student performance was good, and for specific students performance was also good.

Conclusion

The study showed that the students were well prepared for this type of exam, asked logical questions, followed instructions properly, felt confident, and gave the feeling of good doctors. The evaluation also showed that students got agitated during the exam. Students also greeted the simulated patient in a good manner, when the procedure was explained briefly before starting. Students were not impatient for answers, and most of the students felt confident about the problem the simulator patient was addressing. The study concluded that less than half the students thanked the simulator patient at the end, and the other half did not thank the simulator patient at the end.

Recommendation

Reassurance of students so as not to get agitated during exams by giving them a session before the exam to allow them to ask questions regarding OSCE, and therefore to decrease their stress about the exam. More teaching should be done on how to deal with patients and to thank patients, when the procedure, or examination has finished.

ABSTRACT NUMBER: PE 32

Students' perception on an Environmental Health Course as an evaluation for its re implementation and addition to the Community Medicine Curriculum

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Introduction

Environmental Health is a course that helps medical students cast some light on environmental problems and their impact on health. This year was the first time to implement such a course at Sudan International University. The best way to evaluate the course was to find out the students' perception of the course as well as their perception of the field trip. The objective of the study was to evaluate the environmental health course, to find out what students thought of the course as a baseline for its re implementation as part of the community medicine curriculum next year.

Methodology

Questionnaire was designed and administered at the end of the course to second year students. The questionnaire included the following five domains: learning outcome evaluation, curriculum evaluation, instructor evaluation, course material evaluation and field visit evaluation. Answers were graded on the Likert scale.

Results

77.3% said the course improved their academic skill related to environmental health (concepts, principles and practice). 86.4% agreed course allowed for freedom of expression. 54.7% agreed that group work assessed lecture objectives. 81.8% agreed course met their expectations based on overall course description. 77.3% agreed instructor responded to inquiries in timely manner. 95.1% would recommend the instructor to other students. 95.1% said handouts provided information necessary for the course.

36.3% did not find reference books while 22.7% were neutral. Regarding field trip evaluation, 90.2% found the trip informative, 70.6% said the trip developed their intellect regarding environmental health. Mean result for each domain: learning outcome evaluation, curriculum content and instructor evaluation was good. Course material evaluation was average. Field trip evaluation was excellent.

Conclusion
Course improved academic skill and allowed for freedom of expression. Group work done in class assessed lecture objectives and met student's expectations based on overall course description. Handouts were informative. Field trip was informative and developed students' intellect. Mean result was good for most domains and excellent for field trip evaluation.

Recommendation
Course should be re implemented next year and added to the community medicine curriculum. Field trip perception was excellent therefore more emphasis should be on the practical aspect of the course.

ABSTRACT NUMBER: PE 33
Inclusion of social accountability standards in accreditation of medical schools

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Abstract
Until recently, the prevailing assumption was that community orientation and posting, along with problem-based learning, were adequate for medical schools to serve social needs. But now, the notion of social accountability has emerged, meriting attention worldwide, even within traditional medical circles. In 21st century, medical schools will be gauged by their capacity to anticipate the kind of doctors required by evolving health systems. In 1995, the World Health Organization defined the social accountability of medical schools as "the obligation to direct their education, research and service activities towards addressing the priority health concerns of the community, region, and/or nation they have a mandate to serve." The priority health concerns are to be identified jointly by governments, health care organizations, health professionals and the public. Meeting requirements of social accountability is a real challenge for medical schools. To be socially accountable, medical schools must be able to identify and anticipate people's priority health concerns as well as the capacity of a health system to respond. Although medical schools are not presently held to account for the ways in which their graduates are used and serve, their societies, such an accounting may be required in the future. Several international networks have prioritized these social accountability of health professions schools, including the Network Towards Unity for Health, which set up a task force on social accountability and institutional accreditation. Nowadays, there are international efforts towards a global consensus on medical education standards based on principles of social accountability. This presentation will discuss the importance of social accountability as a mark of academic excellence and will highlight the need for inclusion of social accountability standards in accreditation of medical schools.

ABSTRACT NUMBER: PE 34
Evaluation of the graduate programs in faculty of Pharmacy of Tehran University of Medical Sciences

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Background
Due to the rapid growth of faculties of pharmacy and drug industries and demands for specialists in different areas of pharmacy, graduate programs were established in Faculty of Pharmacy of Tehran Medical Sciences University in 1980s and expanded rapidly. Currently Ph.D programs in Medicinal Chemistry, Pharmaceutics, Pharmacology &Toxicology, Biotechnology, Drug &Food Consol, Pharmacognosy, Radiopharmacy, Pharmaceconomic, and Residency program in Clinical Pharmacy are offered. The aim of this study was to determine the strength and weakness of programs in order to make necessary recommendation for promotion and effectiveness of programs.

Methods
Questionnaire inquiring general information and views of graduate students, faculty members and alumni on the Curricula and their contributions to professional careers of alumni were designed, validated by a pilot plan survey and revised on the basis of the results accordingly. Answers were analyzed using SPSS software and P values less than 0.1 were considered significant.

Results
While faculty members of Clinical Pharmacy believed that the research projects of graduate students should be based on society demands, other participants thought that projects should be on recent advancements in the science and have some innovations. Graduate students of Toxicology and Medicinal Chemistry considered the nature of projects. Those of other departments believed the lack of required equipments and materials as determinant factors for Inadequacy of progress in their research projects.

Most participants believe that rules governing admission to the graduate studies should be revised for not admitting non-pharmacy degree holders, giving authority to departments to select their own graduate students and giving higher priority to the English language of participants. Based on the results of this study, graduate programs should also be revised to increase the number of required practical courses, to promote professional capability of the alumni and to reduce the number of the courses of clinical pharmacy program.

ABSTRACT NUMBER: PE 35
Alternative approaches to medical training admissions policies: Changing the local rules

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Background
The process of selecting candidates for training in the medical and nursing sciences has become a topic of increasing interest in recent years. In the competitive world of health-care training, socio-economic and cultural diversity are often considered to be at odds with policies which emphasize academic credentials in the admission process. We continue to note a large number of medical and nursing programs which develop simplistic algorithms

based on test scores alone to determine which applicants will be permitted into higher level pre-clinical and clinical training programs at both the graduate and undergraduate levels.

Methods
36 months ago, two medical training institutions in separate parts of the world broke ranks with their surrounding academic institutions and chose to completely reconstruct the practices and priorities which determined which individuals would be offered seats in highly coveted clinical training programs.

After declaring that test-scores alone failed to fully capture students' ability and potential to contribute to the health of the community they were being trained to serve, both institutions - one in east Africa, and another in Asia became the first programs in their respective countries to overhaul the admissions process. Attributes previously considered irrelevant to the students' application became central elements of a more complex admission process.

Results
A Comparison of the programs' histories, initial transitions and current progress are presented. The political, financial and institutional challenges are reviewed along with what are considered by both programs to be substantial progress toward their stated objectives. Outcome measures are described as well as data collection processes. The academic communities' early and late responses to this significant change in medical training admission practices are also described.

ABSTRACT NUMBER: PE 36
Some issues on evaluation of the integrated medical curriculum

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Background
It's been a decade since the general practitioners have been trained at the Health Sciences University of Mongolia through integrated curriculum. As the developmental trend of education at international as well as at regional level are globalized due to their similarity, Mongolian medical education development and current situation should be determined. We therefore have chosen this topic to investigate with purpose to evaluate the integrated medical undergraduate curriculum and clarify future trends.

Purpose
To analyze the integrated medical curriculum to prepare general practitioner, compare with traditional curriculum.

Methods
It was a cross-sectional survey. There were 1842 students from sophomore to senior year, 116 professors and administrative staffs, 653 medical doctors and health professionals. Data was collected using general practice curriculum, then 33, 16 and 11 questions questionnaire for students, alumni and lecturers respectively. The data analysis was performed using statistical software program SPSS 12.0.1.

Results
The general satisfaction of students, graduates and faculty members on the implementation of the integrated curriculum and knowledge, attitude, skill or competency of students and graduates from integrated curriculum are above the average by Likert scale. The performance evaluation and success of graduates in licensing examination taught through the integrated curriculum were higher than the graduates from other medical schools.

Conclusion
The policy, concepts and design of the integrated curriculum in comparison with the traditional curriculum fit to the need of health care system and international as well as regional development trend of medical education. Hence, didactic hours had been decreased while self learning and elective learning hours had been increased.

ABSTRACT NUMBER: PE 37
Competence-based curriculum in the students' points of view: A preliminary study of CBC evaluation at the School of Medicine Atma Jaya Catholic University Indonesia

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Abstract
The School of Medicine at Atma Jaya Catholic University Indonesia has been implementing the competence based curriculum (CBC) since academic year 2006. Within this five-year implementation, we had done several evaluations. This presentation is to highlight students' evaluation on CBC. Focus group discussions (FGD) have been conducted with the second, third, fourth, and fifth batches of our school of medicine's students. The groups were part of the students who entered our school without the entrance exams (Jalur Bebas Tes, JBT). The members of FGD were selected purposefully based on their academic achievement (GPA) and their involvement in extracurricular activities. Qualitative data analysis was based on the constant comparison analysis. Students across the year pointed out that PBL, Skills Lab, team work, and academic writing (Karya Tulis Ilmiah, KTI) were four most positive aspects of CBC. Meanwhile the negative aspects were the low quality of lecturers, the dense schedule across the semester, and the superficial learning that students experienced. Results from this study showed positive as well as negative evaluations of CBC according to the students' points of view. Focusing on each concern that students have as the starting point to improve CBC is crucial since students are the utmost stakeholders.

ABSTRACT NUMBER: PE 38
Evaluation of the joint master of health professions education – a distance learning program – between Suez Canal University, Egypt and Maastricht University, the Netherlands

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Objectives
To evaluate the implementation of the Joint Master of Health Professions Education (JMHPE) as a distance learning

program as regards the e-learning process, The educational resources, The administrative process and the educational units of the JMHPE from the students', graduates' and faculty point of view.

Methods
A descriptive study was held to evaluate the JMHPE program (Process-Based Evaluation and formative program evaluation).The target groups were all graduates of the Joint Master of Health Professions Education (71 graduates), fifth round students (82 students) and all planners and co-planners of the program (9 faculty).Two methods for data collection were used in this study, self-administered questionnaires for the graduates, students and the Faculty, and reviewing the JMHPE documents.

Results
Through the target groups' perspectives and documents review, the study resulted in an agreement among the majority of the JMHPE graduates and students rated the program as "very good" or "excellent" as regards its relevance to their profession, meeting their expectations, being a challenging, professional distance learning program, meeting its educational objectives, its organization suitability, suitability of its duration to cover educational activities and the increase in their knowledge in health profession education.

There was a considerable agreement that enhancing capacity building and career development in Health Professions Education at all levels (national, regional, and international) is the most agreed upon point of strength (95% of graduates and 85% of students).

Regarding the overall satisfaction about the program, all of the graduates (100%) and the majority of the students (87.5%) were satisfied with the JMHPE program as a whole, so all the graduates (100%) and the majority of the students (90%) would recommend it to their colleagues.

There was a considerable agreement that the dependence, reluctance and lack of commitment among some of the group members is the most agreed upon points of weakness (53% of the graduates and 87.5% of the students)

The overall evaluation of the JMHPE program as regards the promotion of the participants' skills. According to the graduates the program enhances mostly acquisition of distance learning skills and lifelong learning (90% and 86.7% respectively). While according to the students the program enhances mostly acquisition of distance learning skills and critical thinking (92.5% and 85% respectively).

Conclusion
The Joint Masters of Health Professions Education is meeting its goals and objectives. Its theory is designed to achieve the intended outcomes and its operations make the theory effective. Being a distance learning program was an advantage for many of the program participants and facilitated their learning to a great extent. Most of the program participants were satisfied with the program and most of them also stated that they recommended the program to their peers.

Faculty Development

ABSTRACT NUMBER: PFD 1
The creation of a medical education unit in a newly established medical school

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Background
The School of Medicine Education Unit (SMEU) was established in 2007 on the Monash Sunway Campus, Kuala Lumpur. Its express intention was to create an environment which supported and developed the teaching skills of the academic staff within the School of Medicine and Health Sciences. A number of developmental opportunities have been provided on a regular basis for staff during the past three years.

Methods
To assess the effectiveness of the training opportunities, a number of data analysis techniques were employed. These included the use of systematic data management through attendance records, questionnaires, session feedback and evaluation forms. In addition, feedback from staff taking part in continuous professional development (CPD) courses, in-service training and student evaluation of teaching was analyzed. Evaluations were also carried out using open-ended questionnaires to obtain further feedback to refine training sessions and evaluation forms.

Results
Data were systematically collected from the establishment of the Unit in 2007 until 2010. Findings show that there has been a significant increase in the participation of teaching evaluations from the Sunway (56% in 2010 compared to 27% in 2008) and the Clinical School Johor Bahru (94% in 2010 compared to 26% in 2008) campuses. The initial teaching needs analysis showed that a majority of the tutors (90%) required further skills and knowledge-based training. In 2010, approximately 34% of staff from both campuses have participated in the CPD activities compared to 17% in 2007.

Conclusion
The SMEU has been successful in promoting good teaching practice and in the provision of interdisciplinary learning opportunities both in the School and the University

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ABSTRACT NUMBER: PFD 2
CtME: Enhancing Faculty development

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The role of Medical Education Units (MEU) cannot be over-emphasized, but MEUs do not exist in many medical schools or are "far from satisfactory"1 The International Medical University was founded as a college (IMC) in 1992. The Medical Education and Research Unit (MERU), set up in 1999, was renamed the "Centre for Medical Education" (CtME) in 2007 to align its activities with the reorganisation and expansion. It is served by a Director, Co-Director, two Deputy Directors, 21 Fellows, four support staff and plays a pivotal role in Faculty development.

CtME activities include organisation of workshops and faculty training, some of which are mandatory for new staff; scheduled evaluation of the education environment for all courses using the IMU-REEM; student evaluation of courses and faculty. Fellows review medical education research proposals and conduct a medical education clinic (with effect from late 2010) and are developing a measurement of teaching excellence (MOTE)

Needs assessment is done annually, but some faculty do not respond; the percentage is higher in IMU compared with that reported in a Gulf medical school 2. This could be because a sizeable number are senior academics who do not feel the need.

Analysis of its activities from January 2006 to December 2010 is shown in the table below.

	2006	2007	2008	2009	2010
International Conferences	1	1	1	1	1
Faculty training	3	3	7	7	10
IMU workshops	10	10	22	24	20
Number of staff trained (No. 2 & 3)	255	525	638	946	786

The impact is reflected in the increasing number of medical education presentations, publications and medical education research proposals submitted.

The way forward is geared towards acquiring staff buy-in of the MOTE which comprises self- and peer-evaluation in addition to the existing student feedback.

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Problem-Based Learning (PBL)

ABSTRACT NUMBER: PPBL 1
Factors influencing the successful implementation of PBL

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Aim
To identify the factors influencing the successful implementation of PBL and help in achieving its outcomes.

Background
Curriculum designing involves a skillful blend of educational strategies designed to help students achieve the curriculum outcomes. PBL may make a valuable contribution to this blend but attention needs to be paid to know how it can be implemented.

Methods
Focus group discussions (FGD) were conducted at the end of undergraduate first year MBBS Integrated Curriculum Program 2009 at IIMC as an ongoing activity of program evaluation & feedback. Semi structured interviews with preplanned questions were skillfully facilitated by the medical education experts with 30 faculty members, 15 trained PBL facilitators and 30 first year MBBS student. Interview data were transcribed, examined, categorized, coded, tabulated and analyzed in order to achieve the aim of the study. 'Krueger's (1994) Framework' analysis was used with thematic approach for focus- group interview data analysis.

Results
Student support the facilitation skill of the senior faculty members as compare to junior and they acknowledge the better facilitation skills of clinical science faculty. They admit that PBL facilitates & promotes the acquisition of soft skills and of generic competencies, hence encourages a deep approach to learning. But they criticized on the difficulty of some of the cases and its learning resources (multimedia, internet access etc.). On analysis of faculty members' comments they acknowledge that there is need of faculty training for writing & facilitation of PBL' more faculty members should be inducted in this integrated system, there is a difference in performance of the students with different educational & social background. Furthermore, they emphasize the importance of learning resources accessibility to the students and standardization of PBL evaluation process.

Conclusion
Successful implementation of PBL does not come easily; it needs great planning in milieu of staff development & motivation (in PBL case writing & facilitation skills) with adequate resources. It countenance with challenges of political impedance to bring a change, curriculum restructuring & reforming, level and domain of facilitators, student- teacher ratio, differences in student's educational & social background, cost and students assessment & evaluation through PBL.

ABSTRACT NUMBER: PPBL 2
Introduction to problem based learning (PBL): An innovation to teach how to learn in medical school

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Background
In most of medical schools in Asian countries, PBL is a new innovation as learning and teaching method. In high school period, students were used to be taught in conventional way. Changing students' perception and teaching them how to learn in PBL system was difficult. We had developed a module to support students in preparing themselves how to learn in PBL system.

Methods
The module was introduced in the beginning of the first academic year in the medical school. It was called "Introduction to PBL module". The course was for two weeks. The subject matters included PBL tutorials, study skills in PBL, (i.e how to develop a small group discussion and how to define the learning issues, self directed learning

etc) and assessment method. The students would have two problems as triggers that would be discussed on each week. Problems were general illnesses as students had minimal prior knowledge. At the end of the module, we evaluated the course by asking students' opinion.

Results
Results of the respondents are 40% of total students (n=96) said that the course provide a comprehensive information how to study in PBL system. 16% students said it had changed their perception from teacher centered style to student centered. 20% students said the course had developed their critical thinking.

Conclusion
This module was considered useful by the students. It is an innovative guide for students to develop their study skills in PBL.

ABSTRACT NUMBER: PPBL 3
Experience with problem oriented teaching in pharmacology

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Background
Pharmacology is one of the core subjects for further graduation in both preclinical and clinical area. Medical education is being performed either in the classical way lecture based learning (LBL) or in a more advanced form, such as problem based learning (PBL). According to the Medline database, the interest in PBL is still increasing.

Methods
The PBL has been introduced using the knowledge obtained at the Mac Master University and University of Groningen. PBL in pharmacology requires well-qualified staff with clinical experience. A common character of PBL is the use of selected clinical cases as models and starting points to study certain topics by student centered approach.

Results
In an interview we made on a sample of 88 students of our medical faculty in the last study year, 65, 5% of them found the amount of information concerning pharmacotherapy not sufficient for their future clinical practice and 83, 3% did not feel capable of using the knowledge obtained. More then 90% of students did not see enough opportunities for pharmacotherapy training during clinical subject courses.

Conclusion
These results are in support of our orientation of teaching towards the PBL. This type of teaching forces students to be active, trains their skills in communication and selection of knowledge, which is believed to enhance the long-term knowledge retention. By using the hybrid PBL-LBL model at our department we attempt to improve in decision making in training of future medical doctors.

Keyword
Pharmacology teaching, problem based learning, lecture based learning, drugs.

ABSTRACT NUMBER: PPBL 4
Student and Faculty Perceptions of PBL: Are they different?

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Introduction
The value of PBL is still being debated, despite its 30+ years utilisation, because PBLs are conducted differently in different schools, probably because Faculty and students are unclear about the objectives of PBL.

Methods
A validated questionnaire was distributed to 197 students from the Medical and Dentistry courses and 27 Faculty of MAHSA. The questionnaire consists of 14 questions on perception graded on a 6-point Likert scale, with 16 Yes/ No questions on the "good facilitator", and an invitation for remarks.

Results
The perception that PBL is "a useful teaching/learning method"; "stimulates critical thinking"; "more interesting" was unanimous. However, more than 50% of students and faculty perceive arriving at learning issues as the final objective of PBL. Students preferred Facilitators who are content experts/ give out facts/ explain things; whilst Faculty was 50-50. Senior students disagree that triggers should only be clinical whilst Year 1 students thought otherwise. There is a general feeling that PBL was introduced too early in the course. Grading of presentations and usage of power points were identified as inappropriate by a few faculty & students. A number of students remarked on facilitators interrupting /teaching rather than facilitating.

Discussion
PBL is not problem-solving, but encourages self-directed learning and lateral thinking, which is crucial to problem solving2. This PBL objective is unclear to students and faculty: generation of learning issues is perceived as the main objective. Students want standardised learning objectives (because PBL content is assessed and presentation is graded). Strict adherence to learning objectives would detract the value of "open enquiry". They want facilitators to teach; and content experts. This is comparable to previous studies3, 4 and would put learners in a passive role.

ABSTRACT NUMBER: PPBL 5
The influence of students' approaches to learning on their achievement of the modules in problem based learning

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Background
Students' approach to learning can influence their achievement to learning. Deep approach to learning is encouraged along the learning activities, whilst surface approach is discouraged. Problem Based Learning (PBL) is an aligned teaching that can encourage a deep approach. The aim of this study is to gain more view about students' approach to learning on PBL situation and the influence of the approach to their modules' final results in the Faculty of Medicine and Health Sciences of Islamic State University Syarif Hidayatullah Jakarta.

Methods
This study was a cross sectional study in three basic medical sciences modules. The design was causal comparative measured by one way Annova method by using SPSS 16.0. The sample was total population of students from second academic year (2009, n=54). Samples were divided into three groups; first group was surface approach to learning (S group), the second was deep approach to learning (D group) and the third was achieving approach to learning (A group). Learning approaches was assessed by Study Process Questionnaire (SPQ) that was developed by Biggs (1987a). The dependent variables were final scores of the modules: cell and genetic, biology molecular and neurosciences.

Results
About 31% were S group, 50% of students were D group and 19% were A group. This study showed that there was a significant difference between D group and A group on the final scores of cell and genetic module (p=0.008). However, there were no significant differences between groups of the other modules. There were no significant differences between surface and deep approach to learning on the three modules.

Conclusion
The students' approach to learning was dominantly deep approach. There were no significant differences between the surface and deep approach to learning and their achievement results for the three modules in PBL situation. The learning environment in PBL should further be evaluated to form the learning processes that encourage deep approach to learning.

ABSTRACT NUMBER: PPBL 6
A report on the students' feedback on the implementation of problem based learning in a new medical faculty

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Background
Problem based learning (PBL) is employed in many medical schools with some modifications to suit specific requirements. University Sultan Zainal Abidin (UniSZA), Terengganu started the medical degree program in 2009. It has adopted an integrated curriculum with modular system. PBL was implemented from the very first module. Since the faculty was new students had experienced certain difficulty in following PBL. The situation improved in the second semester as experienced lecturers in PBL system had joined the faculty.

Method
The principles of PBL and its implementation were briefed very clearly to the facilitators and students and continued in a systematic manner for the next two semesters. The steps involved construction of suitable triggers, vetting, recognizing the learning outcomes, briefing the facilitators before administering the trigger and framing few multiple choice questions relevant to the case to assess the students understanding of the case. PBL sessions were divided in to two with a gap of at least one week. In the first session trigger introduction, learning objectives identification by the students and sharing the learning responsibilities were practiced. During the gap, literature search and learning activity was completed for discussion in the second session. The facilitator and students monitored the process to assess the learning skills, knowledge and group dynamics. Feedback from students on PBL was also obtained once at the end of semester and another time while assessing their learning style preferences.

Conclusion
More than 95% of the students responded in this exercise and 80% had shown greater liking for the PBL. Only 8% of the students were not sure of the PBL as they said they were confused while the remaining 12% did not like the PBL as they felt it was lengthy, time consuming, involved hard work, boring and so on.

ABSTRACT NUMBER: PPBL 7
PBL or CBL? That is the Question!

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Medical schools the world over have adopted Problem-based Learning (PBL) in one form or another, with mixed results. The success or failure depends largely on consumer buy-in, motivation, cultural differences, learning/ facilitating styles. Educators have responded in the negative to the assertion –based on culture- that Asian students cannot do PBL 1, 2. However, the climate of uncertainty prevails in Asian educators and replacing PBL with CBL (Case-based Learning) had been suggested as a solution.

The International Medical University (IMU) utilises a hybrid PBL curriculum in its preclinical phase (Phase 1). As is the case in many other schools, most triggers are cases rather than focusing on a problem with ramifications (multiple solutions or no solution) 3, and learning objectives check-listed against the faculty's. They can thus be classified as case-based learning (PBL) rather than PBL. Whether this is right or wrong would depend more on the objectives of the session and other factors like student characteristics. CBL leads to a solution but not necessarily to understanding; PBL leads to understanding but not necessarily to a solution4. PBL is described as an "open-enquiry" approach and CBL as "guided enquiry"5. PBL therefore fosters self-directed learning and CBL is directed self-learning.

It has been suggested that PBL be used in the junior Semesters and CBL reserved for later, when students have acquired enough basic information to integrate basic and clinical sciences. This is logical if the objectives are to encourage more in-depth learning. However, it is worth considering CBL for junior students because they require more guidance.

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Postgraduate

ABSTRACT NUMBER: PPG 1
Specialty choice: Personal decision yet influenced by many factors

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Introduction
The career choices of medical students are important for the maintenance of adequate supply of workforce and satisfied people to provide health care to the population. This study was carried out to examine the factors responsible for specialty choice among graduate doctors.

Methods
A questionnaire based survey was carried out among all residents of Shifa International Hospital and Islamic international Hospital. Data was analyzed using SPSS. Effects of different factors which influence specialty choice were examined. About 130 postgraduates who have already chosen a specific specialty were included. Influence of gender was also examined in the study.

Results
Three dimensions were identified which mainly effect the decision making. They were work and time related aspects, career related aspects and patient orientation. Career related aspects were less important for women.

Conclusion
Students' career choices regarding specialties result from interconnection between several factors. Large scale efforts must be made to identify factors that negatively affect certain specialties in respect to new entrants.

ABSTRACT NUMBER: PPG 2
How well do primary care physicians in the UAE understand and utilise communications skills?

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Background
Communication skills training are an important domain in primary care. However the conditions and organisation of the primary healthcare system differs greatly in different parts of the world. This may affect how much physicians are able to implement such philosophy in their daily clinical practice. Language barriers may also affect how patient centred questions can be translated from the language of instruction to the language of patient communication. We set out to explore the understanding and utilisation of communication skills concepts by primary care physicians in Al Ain, UAE.

Methods
A one day CME workshop on communication skills was held aimed at general practitioners (non-specialised primary care doctors) in the Al Ain medical district. At the end of the workshop, two focus groups were held with some of the participants. The facilitator initiated discussion about how much the doctors present were able to implement the concepts they had been taught. Participants were also asked how they would translate communication skills concepts from English (the language of instruction) to Arabic (the language of patient communication). The focus groups were recorded, and the recording transcribed. The transcriptions are analysed to identify themes.

Results
Themes identified include system issues which inhibit the optimal use of communication skills. This includes the lack of an appointment system, which precludes patients' consultations being spaced out over the day and the auditing of doctors to monitor how many patients they are seeing. Additionally some doctors found difficulty translating patient centred questions into Arabic, especially when Arabic is their second language.

Conclusion
Recommendations are made pertaining to changing the institutional barriers impeding physicians from practicing patient centred care, and how the transfer of communication concepts between languages affects their delivery in a non-English speaking setting.

ABSTRACT NUMBER: PPG 3
The House Officers' opinions of the Learning Environment and their Academic Achievements from the MBBS Training Course

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Background
In a medical the curriculum are reviewed and revised regularly, and the educational environment is improved so as to ensure a academic environment conducive to learning. There is a need to find out the institutional strengths and weakness and to identify areas that require remediation.

Objectives
This survey aimed to find out, how the house officers appraise their academic achievements and their learning environment throughout their 5 years MBBS course at the Defence Services Medical Academy, Yangon.

Method
A cross-sectional analytical survey was done on all house officers posted at the teaching hospitals in October 2010, using a pre-tested, confidential, self-administered, closed ended questionnaire, together with an open question asking for suggested changes. The 62 item in seven areas (personal background, academic self-perception, the teaching, the teachers, physical environment, academic atmosphere and social environment) were each scored 0-4, on a appoint 5-point scale. Low scores < were identified as requiring remediation.

Results
292 (91.25%) of House Offices completed the questionnaire. The total average score for their academic achievement was 2.12. The average scores in all the areas were more than

two, except in the total as well as the 7 items in the Physical environment area. In the open ended question, suggestions given were:- to have more effective small group teachings, to teach more applied knowledge of the subjects, and for changes in the lecture rooms including audiovisual aids and internet services and more practical sessions. They suggested to have a recreation centre in the academy with the playground, fitness centre and swimming pool and to arrange for regular talks and seminars to encourage and uplift their morale.

Conclusion
The majority feel that they have achieved what they needed, to be a good doctor. Actions to address student dissatisfaction in the physical environment area and to fulfil needs will be taken.

ABSTRACT NUMBER: PPG 4
Residency clinical training in Mongolia

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Background
A World Federation of Medical Education has outlined new standards for postgraduate medical education. This means that residency residency programmes will have to integrate modern educational views into the clinical workplace. Postgraduate medical education is often characterized as a process of learning from experience. This study sought insight into the integrate process of how residents learn in the clinical workplace.

Methods
This study investigates the views of fifty needs to be the same either whitens in words or numbers attending physicians, supervising residents on Internal Medicine, Acupuncture and Moxibustion, Mongolian Traditional Medicine and Surgery. There involved in the interview to discuss their perceptions of how residents learn and factors influence residents' learning. After the interview the questionnaire is taken.

Results
During the practice of the residents, 41.7% of them help daily work of the sub-coordinator (doctor), 29.2% of them have interest to improve their clinical skills and knowledge, 26.3% of them have lack of the fundemantel knowledge, 26.3% of them do not have anyinterest in learning, 23.7% of them do not have the ability of solve problems, 15.8% can not give a diagnosis, 7.9% do not understand the responsibility and ethics to become a doctor.

Conclusion
It's considered that the student should find the response independently to solve the problems and to find the answer from related books and resource instead of asking supervising teacher and attending physician of clinical training. Residents cannot gain skills such as desire to solve the problem, communication skills and allow weakness from the clinical training.

ABSTRACT NUMBER: PPG 5
Continuing medical education for general practitioners in Myanmar: Assessment on teaching – learning preferences of participants of clinical module on the strengthening continuing medical education course

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Introduction
Strengthening Continuing Medical Education Course (SCME) has been carried by Myanmar Medical Association for general practitioners practicing in remote and rural areas since 2005. One-way and two lecturing, GPs clinic cases and scenarios-based discussion and hospital attachments were used to refresh clinical acumen of the GPs regarding 4 major clinical disciplines: Medicine, Surgery, O&G and Pediatrics under clinical module of the SCME course.

Aim
Teaching- learning preferences of the SCME participants on clinical module were assessed to assist a revision of the existing clinical module of the SCME course.

Methodology
A cross-sectional descriptive study was carried after 9-months training course by using pre-tested questionnaires including open questions to explore the teaching-learning preferences and reasons among 78 SCME participants in 4 selected townships of Myanmar in March 2010.

Results
In the study, the most preferred method for clinical module teaching was two-ways lecturing (81%) followed by GPs clinic cases and scenarios-based discussion (56%), hospital-based teaching (48%) and one-way lecturing (18%).

Reasons for preferences on each method were: getting more interest and absorption in topics because of active participation and friendly sharing experiences, assisting to solve the problems faced daily in GP practices, getting an opportunity to learn hospitalized cases and standard local hospital treatment and saving time to know all in one lecture.

The drawback of each method mentioned by the participants were: having not enough time and need to have prior knowledge for discussion, disturbing to patients and clinic consulting time, difficulty in seeing the cases by all participants, and poor concentration and boredom because of passive learning on lecture.

Small group discussions, mini-clinical conferences, to add clinical videos in teaching aids and to create a website for the course were suggested for future training.

Conclusion
These findings should be considered in future curriculum revision how to harmonize different teaching methods to achieve the learning outcomes of clinical module for general practitioners, participants of the SCME course. A Delphi study should be carried out among the trainers of clinical module to obtain the specialists' opinions for clinical module revision.

ABSTRACT NUMBER: PPG 6

Improving teaching skills of clinical hospital-based tutors and faculty through a blended training course in teaching (BTCT)

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Background
The School of Medicine of the National University of Comahue, Patagonia, Argentina, is a young institution. The original faculty did receive training in education but there has been no formal Faculty Development program for newly appointed faculty.

Currently, there are many instructors (faculty/hospital tutors) who are health professionals with no basic teaching training. Findings based on an internship student survey, on evaluation of rotations by students and on rotations reports; showed that only 62 % of instructors' performances were rated satisfactory. A survey at that time also indicated that 98% of instructors were willing to take courses in teaching.

Method
A blended training course in teaching (BTCT) (face to face and distance learning components) was conducted from August 2008 to August 2009.This course has 4 modules: teaching-learning principles, teaching planning, didactic resources and methods of assessment. Deficient information technology has jeopardized communication between the course teachers and the course participants which has caused 28% of drop outs among instructors enrolled. To ascertain the effectiveness of the BTCT, we compared 2007 and 2008/09 instructors' overall performance and the grade of motivation to teach, as well as students' improvement, using data analysis obtained from surveys, and rotations' information.

Results
72 % of instructors enrolled, completed the BTCT; 74 % of instructors previously rated as unsatisfactory, after completing the course, received satisfactory ratings. In 2007, only 75 % of students were rated "good" or "very good" in their clinical competencies and after the BTCT completion 88 % of students were rated "good" or "very good". 97 % of the 2008 graduates were successfully accepted into medical residences over 91 % of graduates accepted in 2007. As an impact of the BTCT, the improvement of health care provision will be measured by patients' satisfaction surveys and epidemiological data analysis. The support from instructors, recently trained in teaching, to establish the Department of Medical Education, will be also analyzed by 2010/11.

Teaching & Learning

ABSTRACT NUMBER: PTL 1

Teaching medical students neonatal resuscitation: Knowledge gained and retained from a brief simulation-based training workshop

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Background
Neonatal resuscitation is an essential skill for all neonatal care providers. The improvements in neonatal mortality and morbidity over the past two decades have partly been attributed to effective resuscitation. Since 2008, Monash University Sunway Campus (MUSC) incorporated a neonatal resuscitation workshop within the final-year Paediatric curriculum. We assessed whether the workshop was effective in providing retainable knowledge, and analysed student performances in various domains to identify areas for improvement in its delivery.

Methods
We retrospectively analysed the data of fifth-year medical students in MUSC, Malaysia in 2009 who participated in the workshop. The workshop was adapted from the American Academy of Pediatrics Neonatal Resuscitation Provider programme, comprising of overview lectures, practical simulation and interactive video scenarios. The workshop included pre- and post-tests of 21 multiple-choice questions, covering infant evaluation (11 questions), practical actions (6 questions) and theory (4 questions).An identical test was repeated in the final week of the students' medical training (final test). We used paired t-test, ANOVA, linear regression and Friedman's test for statistical analysis (PASW version 18).

Results
The data of 56 students were analysed. The mean score (out of 21) improved from 12.0 (SD 2.5) in pre-test to 16.6 (SD 1.9) in post-test, and decreased to 13.7 (SD 2.3) in the final test. The timing of the workshop (earlier or later) and the students' pre- and post-test scores bore no relation to their final test scores ($p \geq 0.9$ for all factors).

Students scored the lowest in questions on evaluation compared to practical actions and theory. In the final test, 60.6% on average answered correctly questions on evaluation compared to 69.8% for practical actions and 72.9% for theory. Similar trend was observed in the post-test.

Conclusion
Our undergraduate training workshop produced a modest gain in neonatal resuscitation knowledge. Future training should emphasize more on infant evaluation during resuscitation.

ABSTRACT NUMBER: PTL 2

Best practice anatomy teaching in a remote medical school campus in Australia's northern territory

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This paper discusses how best to teach a pre-clinical science in remote sites. The topic is relevant to the current world-wide expansion of medical programs from cities to rural and remote sites. The paper documents the evidence and arguments which have shaped the anatomy learning package provided by Flinders University for students based in the Northern Territory (NT). Review of the evidence for Best Practice teaching of gross anatomy suggests students should receive guided access to a diverse array of anatomy resources which includes prosected specimens, and alignment of the anatomy content with relevant clinical problems. Five models were developed which allow students at remote and very remote sites, to access the

anatomy curriculum. These models address issues particular to remote sites: lack of local anatomy expertise and facilities, availability of distant expertise, and desirability of tailoring the program to match the local context.

ABSTRACT NUMBER: PTL 3

Medical students' attitudes toward mobile parasitological examination in the community

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Background
The Parasitology subject is the one of basic medical science that is studied for the third year medical students, Suranaree University, Thailand. The Conventional teaching offers a teacher-centered. Previously studies showed this style that was unsatisfied and lowest righteous. Attitudes influence behaviors. Developing and maintaining proper attitudes by medical students can impact on the quality of health care delivered to their patients as they assume the role of doctors. Therefore, the early clinical exposure has raised questions in the minds of us about the students' perceived value of basic sciences in such an educational environment.

Objective
This study aim to (i) assess the medical students' attitudes toward the parasitological examination in the rural community, (ii) compare their attitudes between community and laboratory practice.

Methods
Third year medical students from medical school of Suranaree University of Technology (2010) participated in this study. A comparison was made of attitudes toward the basic sciences between students in two, continually, the conventional offers a teacher-centered, basic knowledge and skill taught predominantly by basic scientists and medical doctors in the format of lecture, demonstration and practice in the laboratory (CT). The experimental studies entitled the mobile parasitological examination in the community (MPEC), offers a student-centered, intestinal parasitological examination and communication skill approaches the attendants by themselves, basic scientists and medical doctors were the counselors. Students completed 2 instruments that included the attitudes toward basic knowledge and skill in the laboratory and a MPEC referred to as the Questionnaire.

Results
A total of 48 (22 Males and 26 Females) students completed data collection. Attitude scales were administered in two successive classes of students. The good level attitudes toward MPEC and CO, were received in which the higher level attitude toward the MPEC ($p=0.001$), respectively. Most of participants was highly satisfied with this MPEC and its pressure their perceived value of basic sciences.

Conclusion
This finding shows that modification in educational methods in general and relevant, MPEC experience in particular can favorably influence students' attitudes toward basic sciences. The large scale of population or many medical academicians are required to observe in the further studies.

ABSTRACT NUMBER: PTL 4

Pathology Crossword Competition: An active and easy way of learning Pathology in undergraduate medical education

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Background
In line with the trend to engage students in active learning roles, it is imperative to introduce new strategies that make learning more interesting, especially in undergraduate curricula.

Objectives
The aim of this study was to determine students' performance and perception on pathology crosswords as an active way of learning and to assess their ability in memorizing difficult terms in pathology.

Methods
A crossword competition in pathology was conducted on two batches of Phase 2 MBBS students in Malaysia from year 2009 and 2010. Crossword puzzles were prepared using online application from http://puzzlemaker.school.discovery.com. Two sets of puzzles were prepared: 20 for the assessment of general and 20 systemic pathology. The purpose was to compare their recent and remote memorizing ability as general pathology was taught a year before proceeding to systemic pathology teaching. There were 12 groups per batch, with eight to ten students in a group. Survey questionnaires were used to assess students' perception regarding the competition. A descriptive analysis was performed using SPSS version 11 for comparison of performance.

Results
The mean score of correctly answered questions in general pathology was 12 and 9 in batch 2009 and 2010 respectively. Mean score for systemic pathology was 17 in 2009 and 12 in 2010. The performance was better in students from year 2009 batch. A positive response was observed for the questionnaires.

Conclusion
Applying crosswords puzzle as a new strategy is a useful and easy way for undergraduate medical students in learning pathology.
(245 words)

ABSTRACT NUMBER: PTL 5

To determine the IMU students' perception of learning communication skills in history taking with a real patient versus a simulated patient.

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Background
The doctor – patient interview establishes rapport, collects information and paves the path for management of the patient. A vital component in this process is effective communication skills. Preclinical students in IMU learn the effective use of communication skills largely in their history taking sessions. These sessions in Skills Centre use simulated

patients whereas during their hospital rotation in Hospital JHEOA, Gombak the students see real patients.

Method
This semi quantitative study was conducted to determine the significance of the simulated patients and real patients on the learning of communication skills of IMU medical students during history taking sessions. The null hypothesis states there was no significant difference in the learning of communication skills of IMU medical students during history taking sessions between simulated patients and real patients. The sample group of students of 170 was from semester four rotation posting from two cohorts who were assigned to Hospital JHEOA in Gombak in December 2009 –January 2010 and May to July 2010. The evaluation tool was a questionnaire in three parts using a six point Likert scale, four point Likert scale and free form. This questionnaire was given to the students on the first day of their rotation postings and collected on their last day in the hospital. The analysis was done using SPSS.

Results
The results show their rotation in Hospital JHEOA Gombak with exposure to real patients had a significant positive contribution in learning the use of effective communication skills in history taking. This is largely due to the feeling that it is an authentic situation with the real patient and therefore they were truly involved during the history taking.

Conclusion
The results of this study helps validate our proposal to use real patients as far as possible in our learning sessions in Clinical sciences.

ABSTRACT NUMBER: PTL 6
How can you create the relationship between theoretical education and clinical education?

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Introduction
Classrooms are appropriate places to transfer the experience of professor to students. Training expert human resources from different departments is also important. The aim of this study is creation of relationship between theoretical education and clinical education, and evaluation of efficacy of this method.

Method
This is a descriptive analytical study. The study population is 254 medical students from basic (38.7 %), physiopathology (22.1%) and clinical sections (39.2%) of Jahrom's University of Medical Science in 2010. A questionnaire that included demographic information (age, gender, level) and 12 factors was used. Likert scale was used for scaling. Cronbach's alpha coefficient was 0.866. Data was analyzed by SPSS 15 software both descriptively and inferentially.

Result
181 students completed the questionnaires 66.3% of them were female and 92.8% were single. Mean students ages was 21.48. The teaching tools used is theoretical classrooms is 'open discussion' and application of teaching aids such as audiovisual, moulage, photo of diseases in open discussion include: questions and response by student. All students must study the subject carefully. Then the professor discusses some clinical cases in her or his practice, so, the students get the feel of bedside teaching. The highest mean scores were presented for application of open discussion and case presentation (4.19). The least mean score was allocated to a new method of training (problem base learning) PBL (2.48).The viewpoints of students were determined " open discussion accompany case presentation » (p=0/014), «case presentation » (p=0/001).

Conclusions and comments
Students are motivated for better learning during using different methods of teaching, and encourage them for medical research.

Key word
Medical Education, theoretical education and clinical education, open discussion, teaching aids, case presentation.

ABSTRACT NUMBER: PTL 7
The impact of Dental Biomaterial Portfolio development on first year undergraduate student learning

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Background
Throughout the ages philosophers and scholars have emphasized the importance of self-knowledge as an outcome of learning. One teaching strategy that facilitates self-knowledge among is the creation of task-based learning portfolio. Task-based portfolio is a method of encouraging reflective learning among professionals. The field of dental biomaterials has grown significantly, but the time available for teaching and studying this subject is still limited. The introduction of dental biomaterial to first year undergraduate dental students through a task-based portfolio aims to help students to provide evidence and re¬flect on their pre-clinical experiences and knowledge and sharing those experiences with clinical tutors within the portfo¬lios. This study involved the development of task-based portfolios that will provide a student-centered platform describing the tasks required and reflecting on them while developing the dental experiences and skills.

Description
Students in a task-based learning environment deal with real-life problems, which may result in permanent knowledge. In order to bring together all the parties involved, the portfolio working group was set up. This group was lead by an academic and a technical co-coordinator. Different domains were identified within the working batch, e.g.-lectures, lab skills, assessments; clinical knowledge, presentations, articleship, video presentations etc., and a representative for each domain were assigned. This helped the academic and the technical co-coordinators organize and priorities all the information relevant to the different domains in a systematic way. Assessment was made of students' dental biomaterial experience rather than of project deliverables, using a novel set of process measures that examined students' participation and performance on various topics. Qualitative assessment methods were employed within the batch to obtain a detailed description of the student's performance within the portfolio.

Results
Task-based learning and portfolio assessment could be an appropriate choice for conducting such a course. Results showed good participation by students, and clear understanding of the topics. The findings suggest that portfolio development increased students' communication and organization skills, and reinforced the importance of reflection in learning of the subject.

Conclusion
Satisfactory results encouraged both the instructor and the teaching assistant to apply task-based and portfolio learning to larger groups.

ABSTRACT NUMBER: PTL 8
Efficacy of evidence-based workshop in education of midwifery students

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Background
Maternal mortality has not changed over the past two decades. It is important that women are correctly cared during the stages of labor. Midwifery emergencies are often unpredictable and there is evidence that they are managed poorly. Therefore, midwifery students must be able to diagnose midwifery emergency correctly and manage them properly. There is little education about midwifery emergencies. Nowadays, there is special attention to promote clinical care based on the level of scientific evidence. Evidence-based practice is a combination of the best available knowledge, clinical experience and patient values. Education of midwifery students should be based on the latest scientific findings. This study evaluates the efficacy of evidence-based workshop on learning outcomes.

Methods
A midwifery students in the last semester participated in evidence-based workshop on emergency midwifery. The topics that were presented included preeclampsia, postpartum hemorrhage, shoulder dystocia and cord prolapse. Students took pre-test and post-tests. Statistical analysis was performed by SPSS16.

Results
Pre-test and post-test scores were 7.69± 1.6 and 10.84± 1.5 respectively ($P < 0.001$). Significant differences were observed in cases of uterine rupture ($p = 0.005$), cord prolapse ($p = 0.04$) and shoulder dystocia ($P = 0.02$).

Conclusion
The workshop increased learning of students about midwifery emergencies management. So it seems necessary to make complementary educational programs for graduate students.

ABSTRACT NUMBER: PTL 9
Introducing Integrated Selective during pre-clinical year in the medical curriculum

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Introduction
International Medical University incorporate selective module into the Pre-Clinical (Phase One) curriculum to expose medical students to integrative medicine and holistic approaches to healthcare. Early integration of clinical and basic medical sciences promotes cultivation of analytical, synthesis and critical thinking. Skill Centre introduced To promote self-directed learning and creating a blended learning environment, students were introduced to brochure creation during oncology selective and poster creation in the dermatology selective.

Methods
The study was conducted from 2009 to 2010 in Semester 4 cohort. Sources of data for evaluation are : performance on a post-knowledge test through multiple choice questions (MCQ), brochure and poster presentation and an evaluation by students and lecturers using a self – administered questionnaire regarding the overall program, who the lecturers participated and on student project including the assessment methods.

Results
83% students in the oncology module compare to 63% in dermatology module were able to answer 75% of the MCQ. They scored between 76% - 95% in the brochure presentation and between 70 - 97.5% for Poster Presentation. All students agreed that the knowledge gained is applicable to their medical practice later as well as increased their interest in the subjects. They rated the lecturers from 95-100% in the aspects of organization, speech, enthusiasm and approach ability. All agreed that the brochure and poster making projects promoted teamwork and stimulated their creativity. Though 93.6 % of them thought the MCQs were appropriate, 65.2% of them felt the questions were difficult. The response from the lecturers was favorable in terms of intended outcome, appropriateness of the module and effectiveness of assessment method.

Conclusion
The study result overall shows the IMU students & lecturers accept selective module as a stimulating experience and appropriate It increased the students' interest in various subspecialty which allows career exploration and improves their clinical skills. Poster and brochure creation enables personal growth and promotes peer interaction and teamwork.

ABSTRACT NUMBER: PTL 10
Learning styles and the perception of learning strategies among first year medical students

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A thorough understanding of students' learning styles in higher education is useful for curriculum development, implementation of different teaching methods and student assessments. Learning styles are known to be very diverse among students. It has been categorized in relation to the sensory modality by which they prefer to take in information; Visual (V), Auditory (A), Reading/Writing (R) and Kinesthetic (K).

Our objective was to assess the predominant learning style preferences using the VARK questionnaire. It further assessed

the gender differences for learning style preferences and the perceptions of the current teaching strategies among students.

This study was conducted among the first year medical students in the Faculty of Medicine, University of Colombo (n=192) and the descriptive cross sectional design was adopted.

The multimodal preference (59.8%) was commoner than the unimodal preference (40.2%). Among the unimodal learners 55.8% were auditory, 36.4% were kinesthetic, 3.9% were visual, and 3.9% were read-write learners. Multimodal learners were represented as bimodal (31.2%), trimodal (24.5%), and quadrimodal (4.1%). The learning styles did not significantly differ between male and female students (P=0.115). Quadrimodal learners were less and auditory learners were more compared to other studies. Majority of the students found lectures and small group activities as useful learning experiences most of the time; 60.4% and 47.4% respectively. According to 38% of the students, a feedback was provided during learning activities only half of the time. Responses obtained regarding the integration of knowledge were more balanced.

As majority of the students were multimodal learners active learning should be further encouraged during small group activities as well as in lectures, using a variety of learning tools such as video clips, computer simulations and interactive models.

ABSTRACT NUMBER: PTL 11

The effect of program of research paper writing for medical school students

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Aims
The purpose of this study was to analyze the effect of the program of the research paper writing: the change of research self-efficacy and students' satisfaction. The literature review and analysis is one of the most important ability of medical students and it improves the research self-efficacy of students. Gachon Medical School, the first medical school which changes its status from undergraduate medical college to graduate medical school, introduced the medical research course and taught how to write research proposal and research paper.

Method
This program was implemented to 79 students who entered in 2007 and 2008. The courses in this program were Research Design, Research Ethics, Medical Statistics, Writing Medical Paper and Presentation. Faculty members were assigned to students in the 1st grade. Students took the courses of this program through the 2nd and 3rd grades. On the 1st semester of the 4th grade, there was the final paper presentation. The course evaluation and the questionnaire for research self-efficacy were carried out. The Research Self-Efficacy Scale consisted of 4 factors (Research Design, Research Ethics, Data Analysis, and Presenting the Results) and 18 items. Descriptive statistics, paired samples t-test, and independent samples t-test were used.

Results
Students highly were satisfied with the courses but they were not satisfied with the class of Statistical Analysis. On the question, 'Were the research courses helpful to improve research skills for3 years?" students showed high satisfaction (M±SD=2.52±0.48). The research self-efficacies in three factors (Research Design, Research Ethics, and Presenting the Results) were improved significantly. There was no difference of research self-efficacy by gender.

Conclusion
The courses in the program of writing research paper showed positive results in cultivating research self-efficacy of students. There is a need for improvement of the class of Statistical Analysis as students reported that it was difficult. The comparison study with students in university which do not implement the similar courses and longitudinal study are needed for further test of the effect of the program.

ABSTRACT NUMBER: PTL 12

Assessing evidence based learning through online system: Introducing an easy way to assess learning objectives achievement

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Background
Evidence based learning (EBL) has become an interesting topic in medical education. Students must be prepared to face fast growing of medical knowledge and easiness to access information; by giving them EBL skill. Some methods have been proposed to help student learn through giving skills such as learning how to learn, speed reading, referencing literature, and appraising web and information, etc. Aassessment must be suited to expected competence. By online system, students apply their self learning skill and critical thinking; and use information technology to find scientific consideration, and assess its relevance and validity; to solve a medical problem.

Methods
FMAU develops online system to assess student ability on evidence based learning. Each first year medical student is given a medical topic. Their task is to write a short essay and uploading their work to our secured website in 24 hours from the time when topic is given. Their work is assessed by two assessors trough online system. The works are kept that further being analyzed and give student award after combined with others.

Results
The student and assessor could do the tasks everywhere that have internet access. Sufficient hardware, software, and internet connection, and IT professionals; must be prepared and tried out before the exam run. This supporting system also must be ready facing problem until the validation of exam result.

Conclusion
Implementation of online system on assessing EBL proposed a great deal of advantages through its easiness to conduct around the world. The preparation (supporting system, students, and assessor) must be perform before process.

ABSTRACT NUMBER: PTL 13
Use of Internet and learning behavior

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Background
The higher education requires ongoing changes and development in the learning processes. Countries with advanced educational systems have developed extensive learning strategies, and have provided plans to train students for a wider market place, through the ways of lectures, seminars, workshops, handouts, and web-based tutorials. The introduction of such changes has led to the proliferation of information in different ways, changing patterns of information seeking and retrieving. To evaluate the effect of internet on the learning.

Methods
In this analytical research 360 (290 users and 70 non-users) medicine students were selected through stratified sampling method based on discipline in Jahrom University of Medical Sciences (JUMS). Data analysis was carried out using SPSS-16, by in-depended T-Test and correlation.

Results
The data shows that aim of 36.5% percent of user of internet was career development purpose, 20.2% keep up-to-date, 33.8% for writing a research paper for a journal or conference, 21.0% solve immediate practical problem, 17.0% recreational purpose. The percentage of use of Electronic Resources was 31.9% pub-med, 23.1% Medline, 20.4% website, 20.0% Electronic translation services and 36.0% online chatting. The users gender and disciplines had not effects on using internet (r=0.091, P=0.08) and (r=0.05, P=0.61) respectively. There was a significant difference between the users and the non-users groups in the mean score of opinions about the learning behavior (P=0.037).

Conclusion
The students from all the disciplines showed enthusiastic attitude towards use of Internet for teaching and research purposes. The use of Internet and its impact on their learning, found to be consulting Internet for seeking information for the purposes mentioned above with different percentage. Increasing in use of Internet may be due to unavailability and inadequacy of latest reading material from the university library.

ABSTRACT NUMBER: PTL 14
Self assessment reporting enhances acquisition and retention of clinical skills

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Background
Physical examination skill used to confirm diagnose of malaria is a vital skill for doctors in tropical countries like Indonesia. This study was aimed at evaluating the teaching of the skill at Faculty of Medicine, Sultan Agung Islamic University and analyzing the dominant factor influencing the achievement of the skill which assessed using OSCE.

Methods
Students of 2007 entry year who took OSCE of malaria physical examination skill were the subjects of the study. Students' motivation, perception on teaching learning process of the skill and the way the instructor gave feedback to students' performance was assessed using questionnaire which consisted of 9 valid questions representing each variable, with Cronbach alpha of 0.70. The questionnaires were delivered to students right after they finished the learning activity of the skill. The data of students' score which indicating their 'pass or fail' of the skill examination were taken from their OSCE score of malaria physical examination station conducted at the end of the semester. The data were analyzed using logistic regression test using SPSS.

Result
95.3% (142 out of 149) students took part this study. 35.3% of participants were fail the skill exam of malaria physical emanation, while the rest 64.8% were pass. The two analyzed demographic variables; age and gender, were not predictor of succeed of the skill exam with p= 0.801 95% OR=1.100, CI= 0.537 -2.234, p=0.858 95%, OR=0.913, CI= 0.319-2.589 respectively. The final model of multivariate analysis of three variables; those are motivation, direct feedback from instructor and self-assessment reporting, indicated that the last was the dominant predictor of passing the skill examination (p=0.030 95%, OR= 2.84, CI=1.104-7.314).

Conclusion
Self-assessment reporting method enhances acquisition and retention of clinical skill.

ABSTRACT NUMBER: PTL 15
Evaluation of medical students' viewpoints on drug addiction prevention e-course

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Introduction
Electronic learning because of its special features is being designated a big part of education material currently. This kind of learning not only by the internet but also by multimedia software. This study refers to was designed to evaluate the students' view point on this virtual learning course.

Material & Methods
This study was conducted on the 123 second year students of Shiraz Medical School. To familiarize them with the personal and social damages of drugs, Drug Addiction Multimedia was used. This had been edited by the university education center was used and at the questioner which their reliability was confirmed by the experts' idea and their validity was confirmed by the SPSS statistical software (=73%) was distributed among the participants and eventually after collecting data, it was analyzed statistically by the SPSS version 15.

Results
64.22% of students were found to have complete satisfaction with this course. The example of strength points of this course mentioned were: 63.4% of students mentioned the unity of concepts, 51.21% using interesting and creative pictures and slides, 31.7% using pretest and post test in learning software of the course and 56.9% of students pointed out the avoidance of wasted time. In contrast some weak points were mentioned; for example

57.72%of students mentioned lack of variety among questions, 42.27%% the low quality of recorded voice and 23.57% of students mentioned that software was not compatible with their personal computers.

Discussion and Conclusion
The results of the study indicate acceptable efficiency and suggested how some of the problems can be predicted and solved. Using virtual learning in curriculums of medical education will enhance the learning experience of students.

ABSTRACT NUMBER: PTL 16
Evaluation of E-learning workshop held in 3rd summer school by the students, central committee of Shiraz Education development center

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Introduction
One of the important elements of educational planning of medical universities all over the country is changing the traditional education methods and using new electronic learning methods. In this regards, it feels that it's necessary to raise the students and teachers' awareness. Thus, performing dynamic and purposeful workshop in order to elevate and improve the students' knowledge level has been become a part of education development centers program. So, we decided to hold a workshop regarding this title in the 3rd summer school.

Material & Methods
In this workshop, first students were familiarized with the traditional education methods, their advantages and disadvantages and then new education methods such as computer based learning, game based learning, distance learning and E-learning were discussed and put in o group work. Among the students' discussion limitations and disadvantages of E-learning technology was extracted. At the end the workshop was evaluated by means of a questionnaire.

Results
Based on students' opinion the presenting information was considered purposeful and well-designed (98.2%) and presented content was motivating the students' interest and participation (98.2%). Majority of students (94.8%) believed that the course content was addressing their needs. The presented issue was useful from students' point of view (91.4%) and the workshop was able to answer the related questions (96.6%).

Discussion and Conclusion
Teaching students the concepts of electronic learning based in groups can help education planners impact the important concepts in education programs. Incompatibility of students and teachers with the changing progress is known as one of the most important challenges of achieving success. Teaching advantages and disadvantages besides E-learning's limitations in separated workshops can lead to active acceptance by students and teachers.

ABSTRACT NUMBER: PTL 17
Evidence-Based Medicine teaching in undergraduate studies: A preliminary assessment.

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Background
The benefit of evidence based medicine (EBM) is well acknowledged but gaps exist between clinical research, delivery of research result and clinical practice. To date, there is a paucity of successful reports of EBM education delivery. We aim to examine the limits of the delivery process in EBM undergraduate teaching.

Methods
We analysed the assessment results of 119 final year medical students after 3 didactic lectures on EBM and 3 small group tutorials. The assessment consists of 4 open ended questions following a case scenario and a relevant abstract. The questions comprised of 3 steps in evidence based practice i.e. ask an answerable question, appraise the evidence and applying the results to clinical practice.

Results
Majority (78.2%) of the students agreed that the abstract answered the question asked but only 38.7 %(n=46) were able to provide the correct reasons. 95% and 94.1% of the students respectively were able to identify the major outcome and explain the answer correctly. The ability of the students to critically appraise the abstract was moderate; 78 students (65.5%) could give at least one limitation of the study. Of the 32 students (26.9%) who did not think that the abstract was applicable, 10 gave the reason that this was because patient's refusal of treatment. More importantly, 22.7% of those (n=75) who thought that the reason the abstract was applicable was the data could be used to counsel the patient. As a whole, 20.2% of the students gave totally irrelevant answers.

Conclusion
The capability of our students to complete the EBP steps was modest, mainly due to poor grasp of the research design in general as well as EBM style questions. A broader knowledge of delivery of EBM is necessary. Perhaps there is a need for the development of teaching the teachers courses in EBM in order to improve the effectiveness of EBM teaching and designing of assessment tools.

ABSTRACT NUMBER: PTL 18
Internal evaluation of epidemiology and biostatistics department of the faculty of health in Tehran University of Medical Sciences

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Background
Internal evaluation is a process which deals with gathering data and assessment for the improvement of academic activities. The objectives of the present research are as follows:

1. Determining the quality of the structural elements of the Epidemiology and Biostatistics Department.

2. Determining the strengths, weaknesses, opportunities and threats to improve the quality of activities in the department under research.

Methods
In this research, the efficiency of the department was studied based on the internal self- evaluation. For this purpose, pre-determined indices with relative modifications were used. This study was conducted with the collaboration of the head of the department, faculty members, all of the students (residents, Ph.D. and M.S. students) and the graduates. Through a pilot study the initial rates of the areas under research were first determined by the opinion poll carried out among all the faculty members, then through proper tests, unrelated data were identified and omitted and the final rates were extracted. In this evaluation 9 areas were studied 1) aims and objectives 2) organizational and management structure 3) faculty members 4) students 5) teaching and learning process 6) educational courses and curriculum 7) graduates 8) research and educational facilities and equipment and 9) research using 61 criteria and 172 indicators were used. Five-point Likert Scale was used for the responses in the questionnaire (1-1.75=undesirable, to 4.2-5 completely desirable). Finally the data were analyzed using descriptive statistics indices and the assessment software of the Educational Development Center of TUMS.

Results
The mean of the areas under study was 59.8% of which the minimum (37%) was related to the area of aims and objectives and the maximum (72.6%) related to area of the graduates.

Conclusion
The graduate domain is one of the key areas under study in the internal evaluation of this department which received a good score.

ABSTRACT NUMBER: PTL 19

The opinions of students and professors on the introduction of the elective course tagging along medical professor as one of 1st year students' curriculum Inha University School of Medicine

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Background
One week elective course tutored by a medical professor was introduced on 1st year curriculum to Inha university school of medicine from 2009 to make students experience basic and clinical medicine directly.

Methods
In December, 2009, the questionnaire on the new curriculum was distributed to 52 1st year students and 24 professors who are tutors of elective course on order to ask their opinions on the introduction of the elective course.

Results
The response rate was 100% for students and 79.2 %(19/24) for professors.

The reason why students choose the subject was 'they have been interested on the subject' (54%), 'previous tutor's good lecture' (35%), 'for choosing as a future major subject' (17%). Their activities were 'listening to a lecture (67%)', 'attending seminars and conference (55%)', 'attending or observing the experiments (30%)', 'experiencing clinical activities (89%)'. Students answered "Early 2nd semester of 1st year is the appropriate time (82%) and one week is the proper duration (79%)".

Professors answered 'they gave a lecture (84%)', 'let students attend seminar and conference (58%)' but they think that students' presentation in seminar is an effective way to educate (73%)'. They let students attend or observe the experiments (8/19, 42%), but only 5 professors (5/19, 26.3%) have a positive opinion about students' attending the experiments because the level is too high for them. The reason for professors' satisfaction with elective course was students' active participation (84%), but their limitation was lack of time for caring students.

Conclusion
Even though lack of professors' lack of time for caring students, one week elective course tutored medical professor is helpful for students and professors as part 1st year medical students' curriculum.

ABSTRACT NUMBER: PTL 20

Student's perception about learning critical thinking: An evaluation of application Critical Thinking Question List (CTQL) as a learning method

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Background
Cognitive skill is a part of critical thinking that is also a part of clinical reasoning. So, many medical faculties have to teach these skills in order to prepare their students to be a good doctor that have good capability in diagnosis and management of patient. Medical faculty of Islamic University of Indonesia, have developed many strategies to stimulate student's skill in critical thinking and clinical reasoning.

Objective
To know about student's perception about the learning method to teach critical thinking that uses critical thinking question list (CTQL) in Learning Skill and Information Technology Block (2nd block in first year).

Methods
The study was conducted at medical faculty Islamic University of Indonesia. The population was first year students. The sample was obtained using systematic sampling (n=100). The data was collected using questioner in the end of Learning Skill and Information Technology Block.

Results
Descriptive technique was used to analyze the data. In student's perception, teaching critical thinking using CTQL can improve their understanding about critical thinking. For students, it is an easier method than classical method (lecture method). Based on level-cognitive from Bloom's Taxonomy, the most difficult part of CTQL is making question in synthesis, second part is analysis, third one is application, and in the fourth till sixth parts are evaluation, comprehension and knowledge.

Conclusion
In student's perception, CTQL is a good method to teach critical thinking. They can know about the application of each level of thinking skill by making questions

Keyword
Critical thinking-CTQL-Bloom's taxonomy

ABSTRACT NUMBER: PTL 21

Assessing the impact of teaching WHO's prescription guidance on prescribing skill of midwifery students through role playing

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Background
Proper prescribing and rational medicine taking are important factors of maintaining society's health. Nowadays none of the medical university all over Iran is using a scheduled teaching method related to proper prescribing principles. Recent research has been carried over in order to determine the impact of teaching who's prescription guidance on prescribing skill of midwifery students through role playing.

Method
In an experimental study, a four-hour teaching program about who's prescription guidance was held over two sessions through lecturing for a 25-membered group of randomly chosen, under graduate and post graduate midwifery students. The students' prescribing skill were assessed by OSCE twice, once before the program, and then on completion. The results were analyzed by statistical methods.

Findings
In pretest more than half the students had average capability in prescribing. In post-test it was found that the OSCE marks increased though no significant statistical difference was observed.

Result
Holding teaching classes of practical prescribing methods similar to who's prescriptions enhances the prescription skill of midwifery students.

ABSTRACT NUMBER: PTL 22

Increase in amount of basic knowledge and eagerness towards further studies in beginners self-studying the basic level of "Step-by-step study of human life sciences"

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Background
Students entering health care higher education institutions often not have sufficient basic knowledge to understand the lectures. Good self-study material may help may help necessary supplement due existing educational resources, such as lectures and seminars. We have developed "Step-by-step study of human life sciences" which presents straightforward illustrations and animations, two-choice quizzes and an original explanatory model in small tree-structure steps, for beginners to self-study.

Methods
181 students scheduled to enter a health care higher education institution, were presented was presented with a booklet and the ID/PW for the online Moodle version. For 100 of those who came to the campus orientation, an evaluation test from the material was given, before the self-study. Upon entering, the 181 students were required to pass an evaluation test to obtain credit for the anatomy and physiology course, and a survey (worst 1 and best 5 points) was given to all students to fill in anonymously.

Results
In the 100 students, the average score of the before self-study test was 64.2% and that after self-study was 87.2%. The number of students scoring less than 70% decreased from 36 before to 2 after self-study. In the survey, the average regarding the easiness to understand was 4.0, the usefulness of the small steps was 4.2, usefulness of the quizzes was 3.9 and change in expectation towards the lectures after entering was 3.9.

Conclusion
The material can be self studied and increases both the amount of basic knowledge and eagerness towards further studies in life sciences.

ABSTRACT NUMBER: PTL 23

Medical students learning ethical values: Cross-cultural discussion on a web forum

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Background
There has been an increasing demand to teach professionalism in medical schools, and most schools have incorporated medical ethics into their curriculum. However, as this is often taught by lectures and through ceremonies, students are not trained to identify the underlying principles under different situations.

Methods
A pilot study was conducted in May 2010 with second year undergraduate medical students at the Tokyo Medical University (TMU) and the International Medical University (IMU). The students were given a similar scenario as a trigger, and on their first reading, a semi-structured self-administered questionnaire was administered to determine their understanding of the ethical issue. After students had studied individually and discussed their findings in the respective universities, a second questionnaire was administered to determine the effectiveness of desk research in learning ethics. Subsequently, students in both universities exchanged their ideas on a purpose-built web forum (med-students.net) for five days. Finally, students were administered a post-questionnaire to determine their understanding of medical ethics and effectiveness of cross-cultural collaboration.

Results
Thirty-seven students from TMU and 21 from IMU participated. The results revealed significant changes in both TMU and IMU students for defining the issues involved. After the forum, 53.6% of TMU students identified "patient's misconception" with greater importance (P=0.003), while 58.3% of IMU students (who had initially attached

higher importance on most issues) regarded "the possible consequence" as less important in the situation (P=0.034). IMU students also saw less "cultural differences" involved (P=0.009). As for English communication skills, we found some students had significant improvement in actively communicating in English after the forum (P=0.003). Although there was no correlation between the two groups, discussions on the forum instigated their ethical reasoning skills.

Conclusion
Cross-cultural collaboration enhances students' awareness of ethical issues and helps develop English communication skills.

ABSTRACT NUMBER: PTL 24
Learning to teach using student selected components to develop teaching skills in medical students

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Background
Students are excellent consumers of educational programmes and curricula, but often have little understanding of how a course is constructed and how teachers design, deliver and assess learning. The Learning to Teach Student Selected Component (SSC) in the second year and the Students as Teachers SSC in the fourth year of our undergraduate medical programme were designed to demystify aspects of teaching and learning in the expectation that students would develop a greater understanding of themselves as learners and how to design effective learning events.

Description
A primary focus of the modules is on enabling students to explore and reflect on their own approach to learning with the aim of challenging this approach in the interest of greater efficacy. This is facilitated through a series of simulated teaching and learning events that take place on campus within classrooms and clinical skills laboratories and off campus in local schools, where students teach science subjects and related disciplines at all levels. On foot of this exploration and identification of a personal learning approach, which draws on relevant learning theory, concepts and medical educational literature, students are facilitated in a journey of learning about teaching. Using the reflective practitioner approach, as students build and enhance their teaching and learning skills they come to appreciate the value of these skills as they interact with peers on a daily basis. Assessment of the modules includes an individual reflective essay assignment detailing what has been learned and observations on teaching and learning.

Conclusion
The learning and teaching experiences facilitated during these modules are designed so that each individual participant develops as an effective and efficient communicator of knowledge in a way which best facilitates their own learning as medical students and prepares them for their future roles as medical educators.

ABSTRACT NUMBER: PTL 25
Effective delivery of Pharmacology for undergraduate pharmacy education: IIUM experience

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Pharmacology is one of the important subjects in undergraduate Pharmacy education. The effective delivery of this subject is let students understand and enable to acquire knowledge of Pharmacology to relate and apply to disease management. In undergraduate Pharmacy curriculum, Pharmacology involves not only as a Fundamental subject but also as a part of each body systems. Therefore, the basic concepts of pharmacokinetics and pharmacodynamics are delivered during Year 2 and Year 3 in Fundamentals of Pharmacology, Pharmacology of the Peripheral Nervous System and combined with body systems such as Cardiovascular, Respiratory, Urinary, Endocrine and reproductive, central nervous system, musculoskeletal system, and etc. The learning activities include lectures, tutorials, practical sessions, group discussions, assignments and case studies. The students are can expected to recognize various drugs, their pharmacological actions and the adverse effects to achieve critical thinking and problem-solving to find alternative solution in different situations. Moreover, the students can develop good communication skills, team work, information management and leadership skills. The assessment include continuous assessments such as quizzes, practical sessions, assignments, group presentations and end of the semester examination in each course of 2 to 3 credits. The delivery of Pharmacology courses are in line with the program outcome of the Kulliyyah and therefore enable students to become competent and competitive professionals who are life-long learners in the field of pharmacy to provide holistic pharmaceutical care to the community.

ABSTRACT NUMBER: PTL 26
Learning styles of 1st year medical students

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Students entering medical school from high school are found to struggle to adapt in the learning environment of the professional course. Learning styles are expected to determine understanding and performance in examinations. The present study was undertaken in an upcoming medical school in Kuala Lumpur to identify the learning styles of freshmen and find out if there is an association of the same with the score in their first formal test.

Methods
The study was carried out in October 2010 on 102 newly admitted medical students in their first semester. Learning styles were assessed using VARK Questionnaire and were compared with individual scores of the test.

Results
Analysis of scores of the first formal test showed that 13% of the students were low performers, scoring less than 50% marks where rest 26% scored more than 70% marks. Rest 61% scored average between 51-69%. Among the low performers, no fixed learning style could be identified but, students with single learning style showed better

performance. The low performers tend to concentrate mainly on the visual style whereas the high performers were found to be using mainly either the read and write or the kinesthetic style.

Conclusion
The present study did not show any direct correlation between the learning style of the students and their test scores. However, students with multiple learning styles may have distracted themselves which explains their low performance in the test. Single learning style may be considered to be important for better performance.

ABSTRACT NUMBER: PTL 27

What is the best method of presence-absence in medical students of Jahrom University of Medical Sciences?

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Introduction
Non-involvement by students, in classroom theory course, one of the most important problems facing education has increased in recent years. Therefore, these students with the context of monitoring are a valuable aid to encourage medical students toward the class participation course took a long step. The purpose of this study is to survey the most appropriate method of recording presence-absence from the viewpoint of Medical Students of Jahrom university of Medical Sciences in the 2009 year.

Methods
This is descriptive study. Its statistical population is 354 of medical students from different sections of medical Sciences include basic (36.7 %), physiopathology (23.7 %) and clinical sections (39.5 %) of Jahrom's University of Medical Science in year 2009. Requests were checked at a questionnaire that included demographic information (age, gender, level) and 5 factors proposed. Scoring was assigned by likert approach. Its validity determined by college master and experts, and its reliability by using of cronbach's alpha coefficient equal 0.866. Data analyzed by SPSS 15 software both descriptively and inferentially.

Results
281 students completed questionnaires that 66.3% of them were female and 92.8% were single. Mean age of students was 21.48.The appropriate method of presence-absence from the viewpoints of Medical Students of Jahrom University include: 37% by professor, 27.6% by Class Representative, 17.1% by short Test (quiz), 9.4% by own students through Writing the name and signature. 8.8% of them agreed with implementation of quiz test in all sessions. According to the viewpoints of students in this context were significant differences between variant genders (p=0.034). Presence -absence by professor was appropriate method from the standpoints of 42.5% of female students. Presence -absence by class Representative were appropriate methods from the standpoints of 29.5% of male students.

Conclusion
Medical students have shown greater interest to perform presence- -absence by Professor and then by class Representative. So, it is suggested to the University education authorities replace the modern methods instead of this method. Using different teaching methods are encouraged the Medical students for more corporation in classrooms. Extensive studies in this context are suggested.

ABSTRACT NUMBER: PTL 28

Learning health promotion: A practical approach

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Background
Health promotion is recognized as the key to improve the wellbeing of communities. Hence, this is included in curricula in both medical and allied health sciences. Still it is a relatively new concept not familiar to most of the students as well as the staff. Learning the basic concepts of health promotion in a class room setting and its actual application to improve wellbeing in communities are distinctly different. Teaching the practical way of empowering individuals and communities to place health higher up in their agenda is a difficult task. It is well known that real learning comes from application of concepts and methods. Health promotion is a practical subject that warrants application at the field level.

Description
Community Based Action Research is a model that can be used to facilitate the learning of health promotion at actual settings. Here, we propose to use this model for student reach projects. The method directs to identify issues, collect information, analyze and implement solutions acceptable through empowerment of communities. Students will be given theoretical inputs at the beginning. Then they are encouraged to use the model to work on selected health promotion objectives. Student groups will work with the communities closely on the projects for 2 year- duration.

Conclusions
Learning is facilitated through the fieldwork making it an on job training. This will provide the experience on operationalizing the concept of health promotion. The goal is to achieve higher levels of learning in the Blooms taxonomy. The evaluation will be based on the process indicators of the project to elicit whether theoretical learning has been converted to practice. Student reflection on the entire process will also be used in the evaluation.

ABSTRACT NUMBER: PTL 29

The evolution of comparative hominid anatomy: Utility of a web-based tool

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Background
As professionals in the area of dentistry some degree of understanding of paleontology is important in the context of professional knowledge and personal development. The dental students are taught the significance of characteristic craniofacial and dental features that separate apes and modern humans and they are also required to be able to carry out scientific communications on topics related to comparative hominid anatomy. This subject matter often presents learning difficulties as it can be very dry in content and relating it to the modern Man can be very challenging.

The objective of this study was to describe the use of a web-based tool as an adjunct in the teaching of comparative hominid anatomy.

Methods
A cohort of 54 dental students was divided into nine groups, each group with instructions to set-up a website. Over a period of one month, groups received two questions weekly from the facilitator upon which their assignments and discussions were based. At the conclusion of the project, students were evaluated on the merits of the web-based tool when dealing with the subject matter. This was carried out using a questionnaire on a Likert-scale of 1 to 5. A separate open-ended evaluation was carried out.

Results
Students generally agreed (66%) that web-based learning had helped them in developing new skills and techniques concomitantly with the learning of the major scientific topics. They also perceived the web-based assignment as a useful method in developing team work spirit. However, a total of 29% of the students disagreed that the web-based method improved their perception of the value of the hominid anatomy and 46% were neutral in this regard. There was a general dissatisfaction (57%) about the time they need to spend in doing the web-based assignment.

Conclusion
There are considerable merits associated with the use of a web-based tool as an adjunctive teaching method and improving the students' perception to its use requires more attention.

ABSTRACT NUMBER: PTL 30

Blended learning: Does it answer problems in medical education today?

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Background
Current medical education is complex due to a variety of factors such as diversity of students, complexity of disease management and health care systems, innovative Learning/Teaching methods, expanding educational theories and increased expectations. However, recent advancement of information and communication technologies (ICT) appears as a promising alternative way of supporting learners through some of this complexity. This paper reviews how blended learning techniques have been used currently in medical education. Blended Learning is an approach in Learning/Teaching which combines and aligns learning undertaken in face-to-face sessions with learning opportunities created online.

Methods & Results
Relevant literature was critically reviewed to identify present problems in medical education where blended learning might be successfully introduced in medical curriculum. The review also looked at the impact and the implications of introducing blended learning policy, procedure and guidelines that has enabled the implementation. Based on the evidence, the paper made recommendations to optimise the use of blended learning approach in different curricular models.

Recommendation
Blended learning is a useful alternative to address some critical problems in medical education today. Despite, the diversity of ICT applications that has been incorporated to Learning/Teaching, majority of studies had poor or improper study designs. Proper randomised controlled trials evidences are still limited. Hence, effective implementation and evaluation of blended learning may not be easy as it may appear and would require careful planning and application.

Keywords
Blended Learning, Curricula, Medical Education, ICT

ABSTRACT NUMBER: PTL 31

Learning efficacy between electronic versus printed reading material amongst medical students - A randomized controlled experiment.

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Background
Electronic resources are fast becoming popular as a learning tool. E-books and e-journals are eco-friendly, light-weighted, space saving, easily catalogued and freely accessible to anyone around the world. Web resources are dynamic and interactive for users with infinite possibility in its creativity and variability. However, there are notions that electronic resources cannot be replaced by printed reading materials. Therefore, we embark to look into this widely presumed myth that learning efficacy using electronic resources are not comparable to printed materials.

Methods
This study was approached with a crossover, randomized and controlled experimental design. Semester 7 medical students from International Medical University were selected to participate in this study. Two published journal articles (journal 1 and journal 2) were prepared in two forms (printed and electronic) to be used in this experiment. The contents from these articles are from a sub-specialized medical field to prevent any bias due to prior student's knowledge. Students were randomly divided into 2 groups (group A and group B). For journal 1, group A were assigned to the printed articles and group B the electronic articles. Students were given 10 minutes to read the articles before they were taken back and were given another 10 minutes to answer a 10 questions test. Each correct answer was given 1 mark totalling up to a maximum score of 10. This process was repeated again for journal 2, but with group A assigned to the electronic articles and group B the printed articles. Results from these tests were then entered into statistic software to be analysed.

Results
Thirty students were assigned to group A and 27 students in group B. For journal 1, the mean score for group A (printed) was 6.73±1.48 and group B (electronic) was 7.56±1.69. There was no difference between the score for group A and B ($p>0.05$). For journal 2, the mean score for group A (electronic) was 6.63±1.33 and group B (printed) was 6.20±1.71. There was no difference between the score for group A and B ($p>0.05$).

Conclusion
In this experiment, we found that there was no difference in the learning efficacy between an electronic or a printed journal article and they are comparable to each other. Therefore, with the advantages of electronic resources, we postulate that it may be the learning tool in the future.

ABSTRACT NUMBER: PTL 32
The development of a cardiovascular system portfolio: Challenges faced and lessons learnt

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Background
A growing body of literature shows that many universities are making educational portfolios part of their faculty assessment and student's learning plans. We describe how a cardiovascular system portfolio was developed for medical students at Faculty of Medicine, University of Colombo, Sri Lanka.

Method
Initially the target group and stakeholders in portfolio development was identified. Medical students engaged at the Faculty of Medicine, University of Colombo was the target group. An initial needs assessment was conducted in a cohort representative of the target group. The stakeholders identified were academic staff involved in clinical cardiology training and medical educationalists. After triangulation of the data which collected from target group and stakeholders' goals, objectives and outcomes were developed. A working committee with a nominated coordinator from each stakeholder group was involved in portfolio development.

Students at Faculty of Medicine, Colombo are expected to complete three clinical attachments where they are exposed to cardiovascular clinical training with increasing complexity of exposure. The students resume activities of the cardiovascular portfolio at the commencement of the General medicine – I clinical attachment and are expected to complete the portfolio by the end of General medicine – II clinical attachment. During this period the students' would be is closely supervised by clinical teaching staff. The staff members involved in mentorship includes physicians, cardiologists, senior registrars and registrars would be provided regular training by the Faculty of Medicine, Colombo.

A formative and summative assessment of students' would be conducted at the completion of the General medicine – II clinical attachment by academic staff involved in clinical cardiology training and medical educationalists.

Conclusion
We believe that portfolio development is a valuable application that provides rich documentation of participants' educational history, accomplishments, and intellectual property as related to their professional learning and growth.

ABSTRACT NUMBER: PTL 33
Cooperative teaching: A new method in theoretical teaching

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Background
Teaching is among the chief factors which greatly influence educational process. In recent decades, there has been growing concern about traditional teaching methods and demands for the implementation of modern teaching approaches have been on the rise. Dentistry is becoming a more complicated field of study as new materials and curative techniques are introduced. This study was conducted to compare cooperative teaching method and lecture methods in terms of their impact on students' learning and their learning satisfaction in Shiraz College of dentistry.

Method
Using convenient randomization sampling procedure, all students in 9th semester (60 students) were divided into two groups. A pretest was used to determine students' attitude and knowledge of etiology in orthodontics. Then both groups received six sessions of training. Teaching materials and resources were identical for both groups and they were both taught simultaneously. Traditional lecture approach was used in the control group while the experiment group received cooperative approach. In the second group, small study groups of five members were formed. Then a post-test was conducted .The likert scale was applied-complete rated 5 and 1 and analysed using descriptive statistics.

Results
Findings showed a significant difference between the means of scores on satisfaction in pre and post tests in the experimental group. Similarly, there was a significant difference between the means of scores on satisfaction in both groups. However, means of scores on the post-test in both groups showed no significant difference in their knowledge of orthodontics.

Conclusion
The study suggests that cooperative teaching method could be useful in that it enhances students' satisfaction. Furthermore, small study groups that are typical of this method provide discussion opportunity and direct them toward the course objectives; this can encourage stronger motivation and deeper learning.

ABSTRACT NUMBER: PTL 34
The effect of simulation on students' knowledge and performance

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Background
Rapid advancements in hardware, software, and connectivity are helping to shorten the time needed to develop computer simulations for science education. These advancements, however, have not been accompanied by how best to design and use these technologies for teaching, learning, and testing. The aim of this article is to identify the effect of simulation on student knowledge and performance in psychiatry.

Methods
This is a convenience, quite experiment study on 86 nursing students in two year concurrent psychiatric course. One group was trained by constructive and written simulation and the other group through lecturing. Student knowledge was assessed through by multiple choice questions and student performance using a standard performance checklist. Two groups justified in all subject, content and evaluating process. Student's knowledge and practice in both two groups were compared.

Results
Results showed there were significant differences in mean score of students' knowledge in both groups. In simulation based education it was higher than traditional education. (M=15.50+_ 1.87) vs. (14.05+_ 1.63), P=0.04, but there was no any significant differences in student performance in both educational groups.

Conclusion
To promote students' knowledge in teaching from simulation, we suggest using interactive lessons for teaching medical science

Key word
Construct simulation, written simulation. Knowledge, performance

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ABSTRACT NUMBER: PTL 35
Reflective writing for medical students: A preliminary study in IMU

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Background
Reflective writing is now a significant learning tool in medical education because it plays a positive role in professional development, patient care, and physician well-being. This study evaluates the nature of reflective thinking by second year medical students in International Medical University, Malaysia who used an online shared board to write reflections.

Methods
Twenty one students who enrolled for English for Written Communication course were assigned to write reflections on their experiences in history taking and physical examination held during the clinical sciences sessions in semester four. The purpose for tasking students to reflect on these sessions is because they involve action orientated activities that require individual participation. A textual analysis of the reflections was done using Lee's (2000) criteria to assess the level of reflective thinking. Data were initially analysed by the three researchers who independently read all 38 posts and matched them in relation to the three levels. After discussion, the researchers reevaluated and agreed upon the most suitable level for each post.

Results
A total of 38 posts averaging 300 words each were analysed. The results indicated that 63% were at recall level, 32% were at rationalization level and 5% were critical reflectors. Students at recall level described their experiences and in some instances made connections with associated feelings and prior knowledge. Those at rationalization level were able to examine the learning process, clarify ambiguities and draw conclusions. Critical reflectors deepened the learning experience by offering practical suggestions for change and expected outcomes.

Conclusion
This study proposes that medical students need to engage in a deeper level with reflective thinking and writing. Students need guidance to critically analyse their learning process in order to be aware of challenges faced and take action to achieve desirable outcomes. This research has implication for the way reflective writing can be integrated into the medical curricula, in particular the clinical sciences.

ABSTRACT NUMBER: PTL 36
A pilot study of the first year: Doctor-patient communication module

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The School of Medicine at Atma Jaya Catholic University Indonesia has been implementing the medical Skills Lab (SL) as one of the learning approaches in the competence-based curriculum since academic year 2006. This pilot study is based on a single structured doctor-patient communication module for the first year medical students in the Skills Lab (SL) and reviews from both students and instructors. The module was designed based on the patient-centered paradigm with stress on caring and sharing (Krupat, 1999). The module was piloted in a pilot study which consists of three SL instructors and three pilot groups from year 1 to year 4 students. The pilot groups were chosen purposefully from an extracurricular group, Atma SEARCH (Atma Jaya Science, Education, and Research Council of Health). They were chosen because they were thought to have considerably critical ideas. In that regard, they will give critical reviews on the module. From the pilot study, we collected quantitative and qualitative data. Quantitative data were collected from the 18 statements in the Patient-Practitioner Orientation Scale / PPOS (Krupat et al., 2000). Qualitative data were collected from students' and instructors' written comments written in open-ended questions in the evaluation sheets. Quantitative data analysis showed a quick evaluation for module revision to engage patient-centeredness. Qualitative data analysis showed various points of view with prominent categories from both students and instructors to revise the module. The next working agenda is to revise the module based on this study.

ABSTRACT NUMBER: PTL 37
Building specific competency as doctor with high moral and Islamic values in Faculty of Medicine, Muhammadiyah University Palembang

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A specific competency required as graduate doctors from Muhammadiyah University Palembang is high moral and Islamic values. Graduate doctors should implement the Islamic values and have a skill to do religious proselytizing while they serve as good professional doctors.
This competency may be achieved by students with various methods of learning. Interactive lectures are given along the academic phase to expand student's horizon on health issues based on Islamic values. Every week, students

routinely join mentoring activities supervised by spiritual counselors to discuss some health issues based on Islamic laws and values. When analyzing the problem in problem based learning (PBL) session, students must relate the issues to some Islamic literatures such as the Qur'an, Sunnah, and Syari'ah.

ABSTRACT NUMBER: PTL 38

Building communication skills and apprehensiveness on health problem in community through Autonomous Student Project in Faculty of Medicine, Muhammadiyah University Palembang

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Medical graduates must have the ability to communicate effectively and manage health issues in the community. Various learning methods are implemented to reach these competencies. One method that motivates students in learning is the autonomous student project. From the project, students may train their skills in communication directly with the community. Students have the opportunity to explore and observe information about health issues in real a setting, analyze, and report the issues in a scientific format. This project may also build their professional behavior as medical doctors.

The project is organized in every block from the first year to the end of the academic phase. In total, every student has to undergo at least 21 projects. Students are divided into small groups supervised by one lecturer. They have to directly enter a field of community looking for health problems appropriate to the main objective of the block. They have to explore and analyze all information and reflect on it in class seminars. Most students enjoy these projects, and this strategy could improve students' motivation in understanding health issues in community setting and building their professional behavior.

ABSTRACT NUMBER: PTL 39

A comparing study of face-to-face and video based education on adherence hemodialysis patients

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Background
Diet and fluids non adherence can lead to morbidity and precocious death in hemodialysis patients. It seems it's necessary to attempt for finding effective educational methods that could improve patients' physical. The effects of two educational methods, face to face education and video-based education, on attitude related to diet and fluids Adherence of hemodialysis patients.

Methods
In This clinical trial study, 75 hemodialysis patients randomly were studied in two groups (face to face and video based education). An education plan was designed based on Orem's self-care model and consultation with dietician and urologist after educational need assessment. In the face to face educational group, 2 educational sessions (30-45 minutes), were accomplished during dialysis with a one-week time interval. In the video based educational group, a produced film was presented during dialysis with a one-week time gap. The research tools included attitude questionnaire related to adherence of diet and fluid.

Results
The mean score for attitude questionnaire of fluid and diet adherence at the end fourth week after intervention in two group was respectively 63/3±10/8 and 57/8±14/1. There was no significant difference between mean score of two groups at the end of second and fourth week (P>0/05). But each group, showed significant difference before and after second and fourth week (P<0/05).

Conclusion
Both patient education methods, face to face and video-based were equally effective enhancing of attitude related to diet and fluids adherence in hemodialysis. It is recommended that more attention paid to virtual education and video-based education to be used in hemodialysis settings.

ABSTRACT NUMBER: PTL 40

Medical student's perspective about role plays as a teaching strategy in Community Medicine

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Introduction
Role-play is widely used as an effective educational method for learning in medical education. Engaging students in role play not only promotes active learning but can also be used to deliver components of the curriculum in basic subjects & clinical rotations of a medical program.

Objective
To assess the student's perspective about role plays conducted as a teaching methodology in Community Medicine.

Methods
This is a Quasi experimental study conducted in Department of Community Medicine at Fatima Memorial College of Medicine and Dentistry from July 2010 to November 2010. A probability technique of simple random sampling is used to collect 63 participants from 3rd and 4th year MBBS. Then the students were randomly distributed in five subgroups. A preformed questionnaire was distributed to collect student's responses. The data was analyzed on SPSS version 17 to compare the responses of two different classes. Chi square test and Fischer's exact test are applied and p value is fixed at < 0.05 as significant.

Results
Sixty three students were selected as participants of this study in which 46 (73%) belonged to 4th year MBBS and 17 (27%) were 3rd year MBBS students. There were 13 (20.6%) males and 50 (79.4%) female students. Role plays are identified as most effective method of teaching by 25(37.9%) of the students followed by lectures 17 (25.8%) (p= 0.054). Fifty two (78.5%) admitted that role plays have improved their knowledge of subject, 55 (84.6%) said that it will help them in their clinical performance. About 59 (89.4%) found role plays interesting and 49 (74.2%) wanted to incorporate role plays as a part of curriculum. Role plays improve communication skills was agreed upon by 56 (88.9%) of the participants. The 21 (31.8%) of the participants believed that it has helped in making acquaintance with local situation. Forty six (76.7%)

identified role plays as a feasible way of androgogy (p =0.005) and 48 (76.2%) said that it has provoked critical thinking about the subject (p = 0.038). About 54 (85.7%) students admitted that their attention span was better in role plays as compared to lectures (p =0.047).

Conclusion
Role plays are well accepted by the students as an effective teaching methodology and they can be incorporated as a part of our curriculum in teaching Community Medicine.

ABSTRACT NUMBER: PTL 41
An observation of the teaching role of clinicians and basic scientists during early year of a revised undergraduate medical curriculum- The Sultan Qaboos University experience!

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The Sultan Qaboos University is currently in its third year of implementation of a revised 5.5 year undergraduate medical curriculum. The new program which leads to the award of an MD (doctor of medicine) is composed of three main phases; the first dedicated introductory biomedical courses lasting one year, the second consisting of Organ-System courses where basic and clinical science integration takes place for 2.5 years and finally, the third which is a fully patient-oriented phase. During the earlier phases and in line with current trends (2), a small but significant extent of patient-centered teaching takes place where clinicians interface with basic scientists. The aim of this communication is to report on the initial observation of the actual teaching led by basic scientists and clinicians during the first 3 years of the revised program.

Most basic scientists taught in a passive, lecture-based format generally lacking clinical context or integration. Many carried out their teaching whilst elaborating fine details of their disciplines arguing that it is vital for the student. This situation was echoed by the clinicians who appeared to have forgotten the basic science needs of the students in those early stages. Typically, many clinicians would proceed to differential diagnoses or management strategies rather than emphasizing on mechanisms of disease or principles of therapeutic interventions. The end result was that the students often get caught in this evolving academic torment often suffering from loss of confidence, and in some instances outright hostility to the whole process of curriculum review.

Possible explanations for this state of affairs among clinicians would include lack of awareness of how students learn, discomfort with teaching basic science relevance in their clinical specialty (1), and inadequate communication with basic science colleagues. On the other hand, lack of a clinical background, inadequate awareness about medical education issues, and the fear of loss of relevance could explain the teaching behavior observed amongst some basic scientists.

These initial observations illustrate the urgent need for a radical change in the mindset of medical educators on three important issues; first, that tutors from all backgrounds should communicate more and be willing to give up some ground accept that not every detail in the recommended students textbook in their specialty should necessarily be either taught by them or taught at all. Secondly, that there are stages in the medical curriculum where factual information, though vital, need not be presented to students so as not to overburden them and thirdly, that tutors have to learn to sometimes delegate some of the learning to students and provide space where such independent learning could occur. Finally, these observations also demonstrate the glaring fact that curriculum review or change is not likely to succeed without a parallel program on faculty development that would help nurture the new curriculum.

ABSTRACT NUMBER: PTL 42
Perceptions and experiences in learning anatomy among Sri Lanka Dental students

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Background
Understanding students' perceptions and experiences of learning anatomy is important in teaching anatomy.

Method
This study was conducted in a batch of 1st BDS students (74) of University of Peradeniya. Students' learning methods (LM) were investigated using an Likert-style questionnaire. The "best approach to learning anatomy" and "learning resources" were explored using two open-ended questions. Marks of theory, practical components and final aggregate of anatomy in the 1st BDS examination were compared among students who displayed different types of LM using ANOVA.

Results
Response rate was 80%. Three predominant types of LM were identified; (Group I) memorising (05) 8.5%, (Group II) understanding and memorising (23) 39% and (Group III) visualizing and understanding (31) 52.5%. Mean marks of every component in groups II and III were higher than that of the Group I while Group III showed the highest performance. However, the differences were not statistically significant. Regarding best approach to learning anatomy, all students suggested more than one method. Forty-six students indicated that pre-reading was needed before practical work. Forty-one students stated that dissecting and identifying anatomical relations in cadavers were needed. Other methods were "reading textbooks and studying good diagrams (27), "discussion with others" (17), making reading material (14), use of prosected specimens (13), and attending lectures (10) and tutorials (09). Twelve students mentioned that studying anatomy in relation to clinical scenarios was interesting. The commonest learning resources were atlases (51), followed by textbooks (44) short notes (21), computer and internet based material (19).

Conclusion
This study indicates that students use all 3 types of LM while the predominant type is "visualizing and understanding". Students suggest multiple learning methods as the best approach to learn anatomy. Majority believes that pre-reading and dissections guided by good diagrams are important in successful learning.

ABSTRACT NUMBER: PTL 43

Learning approaches of first year Sri Lanka dental students

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Background
Two different approaches to learning; deep approach (DA) and surface approach (SA) have been distinguished among students. The present study aimed at identifying the learning approaches of a batch of first year dental students and to explore the relationship of them with academic performances of students.

Methods
The revised two-factor study process questionnaire: R-SPQ-2F was administered to first year dental students (74) in the Faculty of Dental Sciences, University of Peradeniya and their DA and SA scores were calculated according to Biggs et al., (2001). Raw marks in SEQs (short-essay questions) for anatomy and physiology components, MCQs (Multiple choice questions), OSPEs (Objective structured practical examination) in each module and the final GPA (Grade Point Average) value obtained at the first BDS examination were correlated with students' SA and DA scores using Pearson correlation.

Results
Sixty-two students (84%) responded to the questionnaire. Fifty-one (82.3%) students showed a greater DA score than their SA score. These students were categorized as the group "X". A greater SA score than their DA score were found in 09 (14.5%) students and they were categorized as the group "Y". In two students (3.2%) DA and SA scores were equal. Mean values of students' DA and SA scores were 31.79 ± 6.1 and 22.74 ± 5.5 respectively. Neither SA nor DA scores showed a significant correlation with any of the examination marks in the study sample. However, the mean values of the GPA, raw marks of MCQ and OSPE of all the modules of the X group were higher than that of the Y group.

Conclusion
This preliminary study indicated that students use both deep and surface learning approaches but a greater reliance on the deep approach. A better performance in examinations could be expected among students who have deep learning approaches.

ABSTRACT NUMBER: PTL 44

Assessment of IMU students' communications skills in breaking bad news: Analysis of the Semester 9 OSCE examination

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Background
The estimated risk of Malaysians developing cancer in their lifetime is 1 in 7 for males and 1 in 6 for females. There are less than 60 oncologists in both private and government sector in Malaysia to cater to a population of 26 million. Consequently, doctors without a specialist interest in cancer are left to manage the majority of cancer patients and have limited opportunities to gain knowledge in oncology at a postgraduate level. As such, general oncology training at undergraduate level is of great importance.

Methods
The Semester 9 students during their penultimate exams were assessed in their communication skills in dealing with a simulated patient's wife who was diagnosed with Stage 4 lung cancer. The question had two components; speaking to the wife who did not want the patient to be informed of his diagnosis and the second component involved discussion of euthanasia. The students were then asked 2 questions by the examiner relating to the patient's right to decline chemotherapy and what issues would need to be addressed.

Results
The 79 students were graded using the global rating system. Three students failed, 10 students were graded as borderline, 53 students had a clear pass and 13 students were awarded a distinction grade. The median mark was 76% (range 30 -100). Box plot analysis suggested that the question did not discriminate the good students from the weak students.

Conclusion
'The Ideal Oncology Curriculum' created by the Cancer Council of Australia, state that relating to communication skills, medical students should be proficient in communication, counselling and education of patients and provide family and community support. Also, they should be aware of ethical issues concerning cancer patients. The results from the analysis suggested that generally students have an adequate competence in communication pertaining to ethical issues in terminal cancer patients. However, the question failed to discriminate the weaker students from the good students.

ABSTRACT NUMBER: PTL 45

Competency based skills: traditional or virtual education?

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Introduction
Accompanied by the rapid developing of computer multimedia and network technology, the internet based teaching and learning methods have become the developing trend and the traditional classroom learning also expands to the virtual network learning environment. The purpose of this study was determining the effectiveness of virtual systems on competency-based skills of first-year nursing students.

Methods
In this quasi-experimental study, 86 first-year baccalaureate nursing students from Jahrom medical University that beginning their fundamental skills training in two year were recruited.

This course concluded theory and practical skills. Theory and practical content teached in one group by conventional method (face to face, demonstration on manikin) and other one by virtual simulation and interactive multimedia, two groups have same condition for subject, evaluation, content and instructor in both section. MCQ test was done for evaluating theory contents and OSCE test for evaluating student performance skills. Data gathered by performance

checklists and analyzed by descriptive and analytical statistics (paired-T-test and independent sample T-test) in SPSS software.

Results
Results, showed there were significant difference between final scores of theory contents, means that mean score in experimental group was higher than control groups ($P<0.001$). Also there was no significant difference between two groups in performance skills by OSCE test and two groups were similar in their ability to demonstrate the skills correctly.

Conclusion
In attention to interactive, active teaching from virtual simulation, we suggest using virtual system for medical science. Due to new technology is not a solution for standalone to promote clinical skills, combination of two method enhance student competency- based skills and trains satisfaction and skill acquisition level

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ABSTRACT NUMBER: PTL 46
Teaching scenario with a role play- "Wrong followed by Right" Can that be more effective for training management of clinical emergencies in medicine?

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Background
Best learning achieved through experiencing something themselves, but to apply that to the teaching of management of clinical emergencies is challenging. The implementation of the classroom based Knowledge to the actual clinical setup and lead them to perform it competently is also challenging. Experiencing something or viewing something close to reality and get the knowledge with confidence is more effective. This study was designed to detect the efficacy of the understanding of the knowledge where students were exposed to view an role -play of a management of emergency scenario first in a wrong manner, stimulated to point out the faults of management which then followed by an act of correct management followed by the explanation.

Methods
The study was carried out as a prospective randomized study. 200 consented subjects were randomly allocated into 2 groups. Group A were subjected to a role-play of a management of multitrauma scenario in the emergency setup in a wrong manner but not revealing it was wrong. Students were asked to note down whether the management was correct or wrong and point out the faults if any. Then they were shown the play of correct management followed by the explanation. Group B was only exposed to the correct management play and explanation. Questioner was given to both groups and assessment was carried out by a lecturer who was blinded to the techniques used. The assessments were repeated after 6 months and 1 year for both groups. The results of group A and B were compared.

Results
Educational levels were comparable in both groups. Immediate assessment of both groups was not significantly different. The six months assessment In Group A showed better performance than the Group B which was very significantly evident in 1 year results.

Conclusion
These findings indicate that for teaching management of clinical emergencies, exposing the students to experience the wrong management as a role-play, encouraged or stimulated to point out the faults of management to arouse the interest and then exposed to the corrected management

Lead to a better understanding as well as the memory.

ABSTRACT NUMBER: PTL 47
Retention rates of ACLS skills in 3rd year medical students

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Background
American Heart Association has provided health care professionals Advanced Cardiac Life Support (ACLS) as standardized guidelines for assessment and treatment of patients with acute cardiopulmonary conditions. Retention of these skills is deemed critical to repeated success. Best practice methods of teaching these protocols are sought to enhance this retention in student learners.

Methods
Our previous studies have shown an increased retention of the ACLS protocols in the third year medical student. This follow-up study was a prospective observational study of a cohort of 120 third year students. All students passed a comprehensive and enhanced ACLS provider course. Subsequently, during the end of the year Comprehensive Clinical Practical Examination (CCPX), all students participated in a station with a simulator, standardized patient and three trained confederates who served as response team. Student performance in 25 critical actions was dichotomously rated as successful or not successful by both the confederate team and a clinical faculty member who reviewed the taped performances.

Results
All students passed the initial ACLS course, none required specific remediation. 116 students took the end of year CCPX exam and the success rate for the 25 rated critical actions ranged between 3.4% and 100%. 90% of students recognized fatal arrhythmias in the patient and 97% initiated cardiopulmonary resuscitation (CPR). 52% of the students performed effective airway/breathing assessment and 59% were able to effectively manage the patient's arrhythmias.

Conclusion
ACLS skills are an important skill set for up and coming physicians and unless they are used in practice, they decay very quickly. Simulation offers modest help in student retention with ACLS skills. Students did well in identifying problems, but did not possess the confidence to treat them appropriately. This study suggests that educators need to examine the goals of teaching ACLS to providers with less defined roles in resuscitation team.

ABSTRACT NUMBER: PTL 48
Effectiveness of using mind maps in learning vitamins

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Background
Mind map is a diagram used to represent words, ideas, tasks, or other items linked to and arranged around a central key word or idea. 'Vitamins' is an important chapter which is an ideal one for applying mind map concept. Hence, a group activity was conducted with the following objectives:

1. To assess the effectiveness of learning vitamins by using mind maps
2. To identify the strengths and limitations of mind maps as a learning tool

Methods
Subjects for the activity were 1st year MBBS students (2010-11 Batch) of Sri Devaraj Urs Medical College, Kolar. Following orientation to mind map, 150 students were divided into 14 groups according to the roll numbers and each group randomly chose a vitamin. Effectiveness of mind maps on vitamins was tested by using pre-test and post-test questionnaire. A feedback on various aspects about the activity was taken and analyzed.

Results
Overall pre-test scores were 5.92 ± 1.63 and post-test scores were 8.95 ± 0.87. This improvement was statistically significant ($p < 0.001$). On individual group analysis to check the effectiveness of mind map use, all 14 groups showed improvement in knowledge levels. Statistically significant improvement was attained in 12 groups. 69% of students agreed that mind mapping promoted a meaningful learning. Majority of students appreciated the arrangements for carrying out the group activity. > 50% of students expressed their enjoyment in group activity with good contribution by the members in their group. 72% felt that such an exercise would promote active learning, reasoning and communication skills. Students felt mind maps were a good revision tool (68 %) and created interest in learning (46 %).

Conclusion
Expressing vitamins through mind maps is an effective tool for meaningful learning. It created interest in learning and was found to be a good revision tool.

ABSTRACT NUMBER: PTL 49
Effectiveness comparison between computer based learning (CBL) and lecture as instructional media in teaching bioethics

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Background
Computer-based learning (CBL) refers to computer-assisted teaching methods in the process of learning. CBL is mostly applied in student-centered active self-study. In CBL, teaching materials, vignettes (written or motion picture), and learning resources can be put into optical storage device or such, e.g. compact disc (CD), thus giving more portability for the students. The effectiveness of CBL as a method in teaching bioethics can be measured from the accomplishment of learning objectives and from the students' learning motivation level. However, the result of interactive CD application in CBL is not yet known. And as the traditional method in teaching bioethics is by classroom lecture, this will be a good "control" for the CBL.

Objective
To compare the effectiveness of the CBL to the classroom lecture in the teaching of the principles of bioethics.

Methods
This is a quasi-experimental study, measuring: (1) the bioethics knowledge measured before and after the intervention, and (2) students learning motivation, measured by Motivated Strategies for Learning Questionnaire (MSLQ). The subjects are all students of GMMS from the 1st semester. They were randomly assigned into two groups: (1) CBL and (2) lecture group. The data acquired were analyzed with Wilcoxon's rank-signed, Mann-Whitney, and Spearman's rank correlation tests.

Result
(1) There was a significant increase in knowledge in the lecture group; however the CBL group did not show any significant difference. (2) Both group showed significant increase in learning motivation. (3) The lecture method was significantly better than CBL in increasing knowledge and students' motivation in learning. (4) There is no significant correlation between gender, computer experience and learning style and the increase in knowledge, as well as students' motivation in learning.

Conclusion
Classroom lecture is more effective in increasing the knowledge and the learning motivation of the students in the teaching of the principles of bioethics.

ABSTRACT NUMBER: PTL 50
Structured school visit health programmes – The dental students' perception

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The Objective of this study was to assess students' benefit to a structured multi-city school visit health programme.

Method
Twenty five 3rd year dental students were selected randomly from a class of 100 students. The duration of the programme was 8 weeks; 2 weeks students' preparation, 4 weeks implementation; one week data analysis and one week during which the students presented their feedback. Preparation phase: Included 6-hour lectures on behavioral psychology of children, 6-hour drama and role playing session conducted by a specialist, 3-hour workshop on data collection and analysis conducted by a statistician, 6-hour training on oral health promotion and 4-hours session on diagnosis of dental caries and periodontal disease and dental charting. Students were asked to prepare posters, educational materials and short presentations to enable them to address school children. Implementation phase: Students were assigned to 8 schools, they were asked to visit 4 class rooms per school (2 first grades and 2 second grades), to deliver health promotion, and conduct an oral examination. Data analysis: Students analyzed the collected data and divided school children into groups according to their oral hygiene status. Feedback phase: Students were asked to fill a questionnaire and results were statistically analyzed.

Results
The results revealed that 21 students appreciated the experience and reported that it added to their knowledge.

Conclusion
The involvement of students in school visits positively contributes to their learning experience.

ABSTRACT NUMBER: PTL 51
A blended educational program and its psychological effects on the students

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Introduction
Blended learning is a mixture of various learning strategies and delivery methods to optimize the learning experience of the user. The objective of this study was to assess the psychiatric effect of the program on the students' personality aspect.

Material and Methods
A comparative study was conducted amongst 41 first year nursing students of Jahrom University of Medical Sciences who had participated in the mental diseases course in 2008–2009. The students were randomly divided into two groups of face to face (classical) and blended educational method. The data was collected by Attribution Measurement Test and five big personality inventories (60-question Neo-Personality Test). The data was analyzed using T-test, Chi-squire and Multiple Analysis of Variance (Manova Test)

Results
The survey results indicated of the interaction between attribution pattern and kind of teaching and it was determined that there was a significant relationship between the type of teaching and the factor of global–local favorable event (P = /04). It was revealed that there was a significant relationship between the type of teaching and personality factors including extraversion (P=0 /02), openness to experience (P=0 /006), acceptance (P=0 /001), and conscientiousness (P=0 /01).

Conclusion
The use of the blended educational method is recommended for teaching in medical and para-medical sciences.

ABSTRACT NUMBER: PTL 52
The outcome of use of an interactive distance learning teaching module by students before entry to the medical faculty

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Background
The curriculum of the MBBS study program of Faculty of Medicine Colombo is conducted in English. Most students complete their secondary education in their mother tongue and English is their second language. As many students gain entry to the Faculty from outstation schools, they find the lessons conducted in English very difficult to comprehend. Inadequate skills in using English Language has been identified previously (SDC-SLAHEE conference 2005) among the diversity of problems faced by the new entrants to the medical Faculty in Sri Lanka, such as financial constraints and staying away from home. Teaching and learning in the first academic term lays foundation for the students to progress through the medical curriculum. New teaching learning strategies used at different levels would facilitate learning.

During the first academic term students have to spend lot of time to understand the new terms, relevant to Basic Sciences. Familiarizing with the new terminology would facilitate learning.

Methods
A distance learning module developed in the form of an interactive compact disc (CD) was posted to new entrants in 2010 before entry.
The CD consisted of lessons to improve English and guiding lessons on Anatomy, Physiology and Biochemistry. A questionnaire, before and after the first academic term assessed the usefulness of the CD. The response rate was 67% and 86% respectively.

Results
Ninety percent of students have used home computers. The usefulness of the English lessons has been rated as grammar 82.7%, speech 89.3%, listening 94.1%.Usefullness of the guiding lessons were rated as 91.5%. The lessons have been useful to familiarize with new terms 74.4%, understand the lectures 69.2% and to take down notes 61.4%.

Conclusion
The distance learning English for Medicine CD was useful for majority of students to get familiarized with the new terms, understand the lectures and take down notes.

ABSTRACT NUMBER: PTL 53
Combined training of the theory by team members teaching design (TMTD) and lecture method on learning and satisfaction of nursing students

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Background
It is though that medical groups need to achieve competence and efficiency of various domains and active teaching methods is recommended to resolve client care needs. According to these methods students will be self-centered, self-guide and enjoy the power of reasoning and judging. So this study was conducted to determine the effect of team members teaching design, and lecture method in family planning counseling in nursing students.

Methods
In this quasi experimental study, 18 female nursing students were participated. In the first two sessions, lectures were conducted which displayed about 80 slides. Then the team members teaching design about methods of family planning was used in the third session after 5 days. A questionnaire was designed which included 9 questions about theoretical knowledge and 9 questions about practical information. Students completed the questionnaires before the first session, after the second session, and after the third session. Student's satisfaction was assessed after the third session.

Results
Mean age of students were 20.7±1.4. Total score was 18 and mean scores were 7.76 ±1.8, 11.59±1.9 and 16.44±1.2 respectively. Data were shown that differences were statistically significant in all sessions ($p<0.001$). Significant differences were obtained on practical and theoretical scores ($p<0.001$). Also students (88.8%) were satisfied with this method and students (72.6%) expressed that they would like that other courses used this method too.

Conclusion
This study showed that concurrent teaching methods (team members teaching design and lecture) increase learning and satisfaction of students. Also, they can practically use the information in cases such as counseling.

ABSTRACT NUMBER: PTL 54
Experiences of developing a Case Based Learning module for a faculty development programme at Manipal University

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Abstract
Case Based Learning (CBL) is an educational paradigm intended to enhance student learning on a specific, "real-life" situations, through learner centered interactions between participants. In this paper we describe the development of a training module in CBL for a faculty development programme at Manipal University.

We began the process by designing a CBL scenario, keeping in mind the need for a "real-life" situation. The case was validated by a Senior Teacher in Medicine and a team of experienced faculty (Expert Group) from Melaka Manipal Medical College performed a Role play on CBL. The Facilitator (Author No.1) directed the Role play with the other members doing different roles. Before each Role play, the Expert Group rehearsed at least twice and after the Role play the Facilitator interacted with the Expert Group after perusing the anonymous feedback obtained from the participants and reflected on the effectiveness of the Role play. The participants included Teachers from Medicine, Dentistry, Allied Health, Public Health, Pharmacy and Hotel Administration. Results of the feedback revealed that 100 %, 93 %, 82.5 % and 94 % of the participants in the first, second, third and fourth workshops respectively felt that CBL Role play was useful. Some of the facilitating factors experienced by the participants included: "CBL session with Role play was an excellent brain stormer and everyone should inculcate CBL in their work place". Some of the hindering factors included: "CBL Role play was difficult to understand, it was monotonous and it could have been more interactive". It was also evident that from the first workshop to the fourth, hindering factors diminished, with none in the last. CBL, when used as an adjunct to Lectures, is known to promote active learning. In order to effectively implement CBL, we need trained faculty who are aware of its utility and process. Through Role play we initiated awareness, hoping that it will eventually lead to adoption of CBL in the curriculum of professional students.

ABSTRACT NUMBER: PTL 55
Association of personality and learning styles in first year medical students

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Medical students in their first year are found to struggle to master the course objectives as they are mostly unaware of their learning styles. Learning becomes easier and effective if the way of presentation corresponds to the student's natural learning style. Personality types have been found to be associated with one's learning style. The purpose of this study was to identify the personality and learning styles of the freshly admitted students, and find out the relationship between them. 97 students from a local private medical institute participated voluntarily in this survey. Learning styles were assessed by using Jester's questionnaire, and personality was identified using the Myers-Briggs Type Indicator (MBTI). Learning Styles Survey revealed that 76% of the students were single style learners, while the rest of them had balanced or multiple learning styles. 46.8% students were found to prefer single learning style namely the visual, non-verbal type whereas the rest of them preferred multiple modalities. Common personality types identified included ISTJ (20.4%) and INTJ (15.3%). Only one respondent each showed ENFP and ESTP personality. The most commonly occurring personality type, however, was found to be ISTJ which represents an Introverted, Sensing, Thinking and Judging individual. When compared with their first formal test score, the low performers were found to be mostly of ESTJ personality, while the high and medium performers were of ISTJ category. Results of this study demonstrate the benefits of acknowledging the difference in personality in the medical students, and subsequently recommending the better learning styles for enhancement of their performance in examinations.

ABSTRACT NUMBER: PTL 56
Learning case history assessment skills using 'Standardized Patients' in comparison with didactical teaching: Students' perceptions

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Background
Training in case history assessment is vital for performing SOAP analysis by Doctor of Pharmacy (Pharm. D) students. This study assessed students' perception on learning from standardized patient (SP) based program in comparison to didactical teaching.

Methods
Pharm. D second year students were taught about history taking skills with didactical teaching followed by interaction with SP in groups. These SPs had been trained to portray real cases. At the end of training session, specific questionnaire was administered which comparatively assessed didactical teaching with SP interview. Issues like students' learning in comparison with didactical teaching, problems faced in didactical teaching and SP based interview, suggestions for improvement, preferred mode of training, effect of individual skill on learning were included in the questionnaire.

Results
28 students participated in this study. Twenty one opined that SP based training was excellent in comparison to

didactical teaching in terms of learning. Problems of didactical teaching listed were: Poor in imparting practical knowledge (13/28); less interactive (10/28); monotonous (4/28) and difficult to understand (2/28). Nine did not have problems with didactical teaching. Regarding the question on problems with SP based interview: 16 did not report any problem; 3 responses indicated lack of individual interaction with SP; 7 opined that more training was required for handling SP. Suggestions to improve SP based training were: individual training (13); frequent conduct of training (4); elaborate cases using SP (3). 7 students responded that individual's communication skills will affect the learning by SP based training. 27 out of 28 students preferred SP based training over didactical teaching.

Conclusion

This perceptional study has thrown light on many aspects of learning from SP. Overall perception of student perception was in favour of SP based training underscoring the importance of this approach in teaching essential skills to Pharm. D students.

ABSTRACT NUMBER: PTL 57

Computer Assisted Learning (CAL) methods in experimental pharmacology : challenges on integration into Medical Education

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Abstract

Assessment is said to drive student learning and define the curriculum. Improvement in the quality of medical education involves both changes in curriculum design and outcome of assessment. The effectiveness of CAL based pharmacology experiments has been the robust debate for recent years, where CAL is used to replace traditional teaching. It is important to monitor the effectiveness of CAL in relation to the traditional pharmacological experiments. Animal experiments are an integral part and backbone of the practical pharmacology teaching at medical and allied health schools. Emerging technologies and the computer accessibility have opened up possibilities for providing medical and pharmacy education through innovative strategies. A huge number of interactive multimedia software has been developed to demonstrate and simulate the pharmacological experiments to medical students. The purpose of this literature based study is to point out the challenges in implementation of CAL in medical education, major advantages and limitations of computer simulated learning in pharmacology experiments. No doubt, animal experimentation is associated with problems of high cost, time consuming, difficult procurement, handling and disposal of animals, the legal bindings of maintaining animal house of approved standards and requirement of skilled persons. The challenge lies in integrating the CAL method uniformly for experimental pharmacology teaching in medical education among the medical institutes. This is perhaps the greatest challenge confronting teachers of experimental pharmacology at present. CAL based pharmacological experiments are proving to have more advantageous over conventional methods. Harmonizing CAL based new technology with the 'old' animal experiments will be a newer challenge. But it is also not realistic to think that the knowledge of classical pharmacology experiments can simply be forgotten as worthless to study. Faculty need to be made more aware of the possibilities that an alternative provides, and they need to be convinced of the viability. They also frequently express the desire to be able to modify the computer programs to meet local educational needs and this is something that developers of alternatives need to take into consideration. An empirical study was conducted earlier to compare and assess the learning effectiveness of CAL and conventional experiments, the results showed that the CAL has potential to develop into an effective learning among students. However this is not a contest between computer-based and conventional method of pharmacology experiments. Both CAL and laboratory practical classes are valuable tools for education in biomedical disciplines. In any event, it is important that the emphasis does not swing overwhelmingly in favor of replacing traditional practical classes with CAL exercises. It is therefore essential that the merits of both forms of teaching are considered and that a balance is struck in the armory of the educationalist. This can only be to the advantage to students receiving such equity. To further reduce animal use in education it is important to convince and persuade faculty who are the 'curriculum agents' and efforts should be directed towards this through the awareness raising, publishing evidence of successful use of CAL based non-animal experiments in other universities, providing assistance with integration of alternatives into mainstream teaching, and developing new technological approaches to creating the resources which enable faculty to modify content and educational approach and avoid technological redundancy.

Keywords

CAL, Computer assisted learning, experimental pharmacology,

ABSTRACT NUMBER: PTL 58

Evaluating the effect of using multimedia compact disk on the education of addiction prevention course to the second year medical students of Shiraz University of Medical School (SUMS)

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Background

Elective educational courses encounter oppositions from students. For new generation instruction of such courses by traditional longsome methods doesn't have required educational attraction while holding the courses by the electronic learning especially in the front of multimedia will be more effective and interesting. So we decide to hold addiction prevention courses as an elective course in the front of multimedia CD for the medical students.

Methods

This study was conducted on the 123 second year students of SUMS. Students were given a CD containing relevant professor lectures, slides, pictures and video clips, learning materials text of this course and also pretest and post test. At the end, in order to evaluation goals assessment, we evaluated the applicants by the multisource feedback.

Results

The average of pretest among students was 12.13 ± 1.43 in comparison with the post test average which was 17.63 ± 1.73 and showed statistically significant difference ($p=0.001$). Also, multisource feedback showed that 86% of students said that learning goal assessment was great.

Conclusions
Using modern electronic technology leads to more attraction and interest in learning. The outcomes of these studies show that using the E-Learning methods increases the effectiveness of these courses considering the earlier lack of interest in elective learning courses among the students.

ABSTRACT NUMBER: PTL 59
The wired and wireless lives of medical students at Chulalongkorn University: Elucidating common beliefs

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Objective
The study aimed to investigate the nature of students on computer use, e-learning, and mobile learning.

Method
The population was students from first to fifth year at Chulalongkorn Medical School in the academic year 2009. The data was analysed with Student's t-test, Mann-Whitney U test, Chi's square, and other descriptive statistics.

Results
It was discovered that the respondents on average use computers as often as 2-3 hours per day and 5-6 days per week. Once we grouped the students into two groups according to their academic achievement, we saw no statistically significant difference in the amount of time per week spent on computers ($p = .279$). We also found no significant difference ($p = .747$) in the percentage of the time spent on computers for academic purposes between them. When we grouped according to gender however, we did see significant differences. But the apparent differences perceived were relatively low; the time per week spent on computers ($p = .000$) was comparatively similar between males (5.79 days) and females (4.94 days).

Laptop ownership of the respondents was found at a high fraction of 77.3%. When the students were grouped according to their tracks, we saw a contrastively pronounced difference in which there was a higher percentage of ownership among students from distant areas (85.9%) compared to that of directly admitted students (64.9%). With 48.6% of the respondents already owning a mobile learning device, we found equal ownership in males (46.2%) and in females (50.6%).

Conclusion
The study rendered many of our common beliefs false. We were also able to conclude that, in our particular setting, e-learning has not yet integrated into the students' learning as an inseparable component.

ABSTRACT NUMBER: PTL 60
Is AIR critical? : Students' perception on an assigned independent reading topic

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Background
In the current IMU Phase 1 Medical Curriculum, there are concerns on students' (1) writing skill as they are more exposed to MCQs and EMQs, particularly at a time when portfolio writing is to be introduced; (2) achievement of the 6th IMU outcome, critical thinking, problem solving and research, as rote learning is rampant. One of the e-learning activities in Semester 3 is AIR, (Assigned independent reading where the students have to research and write a 500-worded essay on an assigned topic. On submission, they can, on optional basis, write comments and rate the fulfillment of the 8 IMU outcomes. This paper looked at the students' perception of a particular AIR topic given in July 2010.

Methods
AIR topic titled "Whitecoat hypertension and its impact on cardiovascular health" was designed to challenge the critical thinking and writing skill of the students, who were asked to answer the question posed by a reader published in Malay Mail ("What if the patient has already been prescribed BP-lowering medication and has taken them for five years with unsatisfactory results causing the BP to yo-yo? Is it possible to stop taking the BP medication since BP measurement in the comfort of the home indicated low BP readings? Three references and instruction on citing and listing references were given. Word limit: 500 words. Of a total of 190 submissions, reports of all those scoring grade A (n= 49), grade C (n= 7) and 30 students from grade B scorers were analyzed using Microsoft Excel.

Results
Overall rating for the outcome, critical thinking, problem solving and research, is highest (4.85 +/- 1.1 ; Scale:1=Strongly disagree, to 6=Strongly agree) among the 8 IMU outcomes. The ratings and open feedbacks by the three groups will be presented.

Conclusion
The AIR topic and other assignments could and should be designed to promote critical thinking and active learning.

ABSTRACT NUMBER: PTL 61
The Doctor: An old movie but never out of date at discussing 'Doctoring'

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Background
The use of movies for teaching health professionals has been well documented in previous articles. Especially, it has been suggested an effective way of teaching the doctor-patient relationship, family systems theory, developmental concepts, legal issues in medicine, psychiatric diagnoses, cross-cultural issues. During a large group lecture class, a video clip from a movie was used to help students to get insight about 'what doctoring is' and the meaning of patient-hood.

Method
This was conducted as a part of 'Patient Doctor Society' program for 134 second year medical students. Video clip vignettes and short-answer essay questionnaire consisted of 10 items were developed the following 5 topic areas; 1) understanding patient-hood, 2) relation-centered communication skills, 3) how illness affects on individual life, 4) bad news delivery, 5) hospital hierarchy and

residency education. 15 video clips were selected from the movie titled 'The Doctor', a movie have been widespread application for teaching behavioral medicine.

The course description
During 2- hours class time, two activities were provided to students. First, 15 video-clips were shown without any interruption. While watching the video clips, students were asked to write their thoughts freely, but at least three things, whatever they were impressed/interested in or need to thought over or discuss. Then, video clip vignettes under the specific topic were reviewed again. At the same time students were asked to fill-up the related short-answer essay questionnaire items. After students' write up their responses, classroom discussion was facilitated by a faculty. At the end of the class, general class evaluation was conducted by students as well. Students' free write-ups and responses for the faculty determined short-answer essay questionnaire were well correlated. Students could explore and raise issues for the important aspects of each five topic areas.

Conclusion
A large group discussion using video clips was useful to help medical students to eye-open about what 'doctoring' is and 'patient-hood.'

ABSTRACT NUMBER: PTL 62
Standardized blended interactive e-learning in surgery course

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Background
The wide availability of Internet, modern computers and smart phones has introduced new opportunities for providing innovative ways of learning to medical students. Over the years, various e-learning technologies and methods have been introduced to medical education. However these were rarely planned or standardized. This evaluation study assessed the instructional effectiveness of a carefully planned and standardized hybrid computer-mediated course delivery on student educational performance.

Method
The study was conducted on 4th year medical students (44 students) of which 36 participated in the feedback. The course was designed to include multimedia enhanced case discussions, e-portfolio, online multiple-choice formative assessment, downloadable course materials, and continuing asynchronous discussions; the instructors mediated all interactive activities. An expert content committee planned every course chapter and decided which e-learning resource is best in each situation. A survey as well as interviews with teachers and students was conducted to assess the satisfaction, practices, responses, and barriers to the use of the web-based blended course delivery.

Results
Students said they had more contact with tutors and colleagues (86.1%), Better possibility of self-assessment and feedback (91.2%), Flexible learning (91.7%), Faster and easier information retrieval (83.4%); they can access information any time (91.7%), and Easier learning (80.3%). E-eLearning helped them understand surgery (75.2%). 58.3% of the students rated the experience as excellent, 33.3% as well.

Conclusion
The implementation of blended learning in Surgery helped students' access information, interact positively with tutors and improve their learning experiences. It also provided better self-assessment. For educationist it helped standardize blended experience and plan for future changes/improvements.

Recommendations
Further large scale implementations with standardized approach are needed to build on these findings.

ABSTRACT NUMBER: PTL 63
Glycemia and learning in students from Universidad Peruana Los Andes Huancayo – Peru

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Objective
The present research, was born from a particular interest in the classrooms of the Postgraduate School of the University of Central Peru, when analyzing the factors of poverty in our country and particularly in our region, and forced to raise the respective analysis with the ability to relate nutritional (in this case glucose, as a sensitive and significant index) & academic achievement.
We have decided to consider the following: blood glucose level of the students at the beginning, middle and end of the scheduled sessions and their relationship to the achievement of learning in the course of Gynecology and Obstetrics.

Materials and Methods
Four training sessions, were conducted, each training session lasting three hours. In each session, blood samples were taken before and after the training session and evaluation of conceptual, procedural and attitudinal. We showed that the level of glycemia influences cognitive learning ($F = 21.83$), procedural ($F = 23.85$) and attitude ($F = 23.42$). We obtained a highly significant correlation ($r = 0.844$) between level of glycemia and conceptual performance ($P = <0.01$), ($r = 0.830$) between level of glycemia and attitudinal performance ($P <0.01$). The results show that glucose has measurable effects on learning skills in students of Human Medicine.

Results
The blood glucose level of the students of the subject of Gynecology and Obstetrics level is average, 100.07 mg / dl. Hypoglycemia determines a low academic performance of students under investigation. Students with hyperglycemia have a good academic performance and very good.
An academic performance skill of students taking the subject of Gynecology and Obstetrics is average. As the conceptual achievement, a higher percentage regular, procedural academic performance, good in a higher percentage attitudinal and academic performance, good in a high percentage.

ABSTRACT NUMBER: PTL 64

Student perceptions of interprofessional learning – A survey from the second project on interprofessional learning at the International Medical University.

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Background

A second project in interprofessional learning (IPL) was conducted at the International Medical University (IMU) from December 2009 to February 2010. In this study, we aimed to evaluate participating students' perceptions of IPL and whether these perceptions changed after the experience of shared learning.

This project involved sixteen Year 4 pharmacy students undertaking clinical placements at the teaching hospital, and thirty Year 5 medical students undertaking an internal medicine rotation. In groups of 2-4 individuals, all students participated in the timetabled learning activity of the internal medicine rotation. Shared learning events include ward rounds, case presentations, lectures in therapeutics and task-based learning (TBL).

Methods

All participating students were asked to respond to a 23-item questionnaire before and after undertaking shared learning. The questionnaire used a 5-point Likert scale anchored on 1 (strongly disagree) and 5 (strongly agree). Fourteen items directly evaluated students' perception of the shared learning experience. Data were analysed using SPSS 16.0.

Results

Response rates were 100% from pharmacy students and 73% from medical students. The majority (86.9%) agreed that IPL would help them communicate better with members of other disciplines. Only 36.8% thought that IPL would improve their communication with patients. Bedside teaching and ward work were thought to be preferred methods of IPL delivery. Medical students had a higher mean perception score compared to pharmacy students (3.78 ± 0.50 vs. 3.52 ± 0.49, P = 0.13). There was no significant difference in perception before and after the actual IPL experience, but the mean score for pharmacy students dropped slightly after the IPL experience (3.52 ± 0.12 vs. 3.46 ± 0.10, P = 0.545). Nearly 75% of the pharmacy students thought that IPL activities increased their workload, whereas only 9% of the medical students shared the same thought.

Conclusion

The medical and pharmacy undergraduates surveyed had good perceptions of IPL. They believed that IPL would help them become more effective members of healthcare team. Pharmacy students tended to regard shared learning tasks as additional workload to their clinical placement tasks.

Others

ABSTRACT NUMBER: PO 1

Decreasing women corporal, incorporeal, & psychic consequences of pre-menses syndrome (PMS) through an self-regulation & coping skills program

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Background

Premenstrual Syndrome (PMS) is a prevalent disorder among women which reported as a frequency about 30 to 86 percent of women society. Some psychological and somatic difficulties occur and repeat before and during menses, have been noticed. This syndrome harms personal activities and disturbs social behavior. This semi-experimental intervention has been accomplished to Decrease women corporal, incorporeal, & psychic consequences of pre-menses syndrome (PMS) through a self-regulation & coping skills program. By using t-tests data were analyzed.

Methods

A sample as 80 persons was selected among women whom suffered from PMS, at least with two of 10 signs, in Kaviraat (AaRaan & Bidgol province in Isfahan state). They were randomly divided to experimental and control groups (each one contains 40 women). A self-regulation & coping program had been instructed in Abuzeid Abad Health and Cure Center. Both groups were assessed twice (before and after instruction) by using PMS signs and attitude toward PMS scales as a pretest-posttest design).

Results

Instructing self-regulation & coping skills program shows significant decrease in PMS psychological symptoms and so significant refine in attitude toward PMS in all cognitive, emotive, and behavioral dimensions. There was no significant change about PMS somatic symptoms. Thus control group didn't show any statistical significant difference.

Conclusion

The self-regulation & coping skills program could be effective to improve significantly women's qualities of life that suffer from Premenstrual Syndrome (PMS). It is recommended to perform and experiment a program which embraces both physical and psychological aspects to improve women's abilities.

ABSTRACT NUMBER: PO 2

Teaching racial understanding to medical students

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Background

Racism in medicine is present not only between medical practitioners but also among medical practitioners when treating patients. This study aims to promote racial understanding among medical students as part of their training.

Methods
Description: Third year medical students are posted to the community medicine department for community diagnosis for a period of four weeks. The students are posted into the selected villagers for 5 days. An 'anak angkat' or 'home stay' component is an integral part of the survey.
Setting: Most were non Malay students from urban areas whereas the villagers were Malays. 229 students and 47 heads of the households where the students stayed were the respondents.

Questionnaire: Data was collected before and after the home stay. The questions consisted of sets of dichotomous responses on three dimensions; perception on living with other races, racial understanding and on the home stay programme.

Analysis
McNemars and paired t test was used to compare the scores.

Results
Results showed a positive change post home stay among the students and foster parents on these three domains. There was a positive change in the domain perception of living with other races; difficulty of staying with other races ($p=0.001$), choice of staying with same race (<0.001), willingness to stay with different race ($p=0.016$). In the domain racial understanding; cultural differences too wide ($p<0.001$), cultural differences too wide to achieve racial integration ($p<0.05$), willingness to play a role in racial integration ($p=0.04$) and government should play an active role in racial integration ($p=0.006$). There was also a significant change in the mean scores of the students' perception about the villagers and their own skills and ability post home stay. Majority of the foster parents experienced moderate improvement of their understanding of the different races and their cultures.

Conclusion
The home stay programme had made a positive change in the perception of the participants on racial understanding.

ABSTRACT NUMBER: PO 3
Medical student personality toward personality measurement

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Background
Medical curriculum of Suranaree University of Technology is the new medical school of Thailand, since 2005. Medical students are selected from 4 northeastern region emphasized Nakhon Ratchasima, Surin, Burirum, and Chaiyaphum provinces. The medical students' personality is an important for our selection and medical student development. In addition, medical personality is useful for the student affair to prepare and select the activities for self development. The sixteen personalities questionnaires are comprehensive measure of normal range of personality found to be effective.

Objective
The cross-sectional descriptive study to determine the medical students' personality in Suranaree University of Technology during 2008 to 2009 using the 16 personality factor questionnaires.

Methods
First year medical students from Suranaree University of Technology participated in this study. All participants were accepted for the consent form and completed standardized questionnaire for general information and personality type. Personality was determined by a standard personality test, the 16 Personality Factor Questionnaires (16PF) with cover 5 aspects for good medical professionalism such as ego strength/self control, responsibly, stress management, aggressive tendency/hostility, neurotic conflict management.

Results
48 medical students were included. The majority sex was female but this characteristic was no different in the statistical significant. The personality profiles shown medical students generally had more aggressive tendency/hostility and stress management, responsibly, neurotic conflict management, ego strength/self control, were 6.5, 6.4, 5.9, 4.8, 4.6 respectively.

Conclusion
This finding presents the personalities of medical student that conflict management and ego strength/self control were considered. Longitudinal study is an influence of personality changed therefore the academic performance needs to be performed with develop program in the risk problem.

ABSTRACT NUMBER: PO 4
On the attitudes of the first year medical students in 2010 towards the field of study medicine and its career prospects at Shiraz University of Medical Sciences

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Background
Different factors and conditions during studentship could cause a positive attitude of the students towards their field of study and enhancement of their enthusiasm for learning. This study was designed with the purpose of assessing the attitudes of students towards the field of medicine and its career prospects, the results of which could be used for improvement and completion of the curriculum.

Methods
This study was conducted in analytic cross sectional from 50students admitted in the first year at school of medicine in 2010. The questionnaire consisted of 15 items based on Likert Scale, the internal reliability of which was computed in a pilot study to be $\alpha= 84.5$. The data were analyzed using SPSS 15.

Results
88% of the respondents took the University Admission exams only once and the first choice of 90% of them at the time of choosing the field of study was medicine. The majority of students (96%) stated that they choose the field of medicine with full information about it. On the other hand, 94% of students stated that they were familiar with the field and requirements for study in it before choosing the same. 44% of students were explained that the design of the curriculum was based on the needs of a real physician while the view of 48% of students was in contrast to it. At last, 66% of students disagreed with the quota allocated that field of study.

Conclusion
The results show that the attitude of the students at the time of their admission to the university is acceptably positive. However, the students feel deficiencies concerning the curricula as well as the quota of those admitted. Considering the positive attitude of students, the educational planners must take steps towards enhancement and the proper utilization of that enthusiasm.

ABSTRACT NUMBER: PO 5
Students' motivation in medical school, Suranaree University of Technology

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Suranaree University of Technology, Thailand

Background
Medical curriculum of Suranaree University of Technology (SUT) is the new medical school of Thailand, since 2005. Medical students are selected from 4 northeastern provinces emphasized Nakhon Ratchasima, Surin, Burirum, and Chaiyaphum provinces. Many medical schools in Thailand are enrolled for medical students therefore we are interested to study their motivation in our school.

Objective
The cross-sectional study was to determine among student motivation in medical curriculum of SUT.

Methods
The 121 students who are candidates and attended the interviewed step for medical student selection of SUT were included in this study. The study was conducted in 2010. Alls participants were completed the questionnaires using the application of Frederick Herzbergs' theory, evaluate the success of the profession.

Results
The results showed that Scores on Students' Motivation factors were achievement of the profession, a respected professional, the advancement of the profession. the quality of Institute (Suranaree university of Technology), other environmental factors, in the analysis of correlation between independent variables showed that The success of professional, respected, professional advancement, environmental and institutional factors are related in the same direction with significant ($P < 0.05$).

Conclusion
This finding showed that student participants have the highly motivation to study medical curriculum in the success of professional, respected, progressive environmental and institutional factors. Motivation levels most like the guidance of teachers, parents involved in choosing to study in SUT. Further study, should be study the parents' attitudes on admission to SUT.

ABSTRACT NUMBER: PO 6
Occupational risk for blood borne infection among medical, dentistry and nursing students in Indonesian Teaching Hospital

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Aim
To measure frequency of sharp injuries (SI), perceived risk of blood-borne infection (BBI), Hepatitis B vaccination coverage and training on Universal Precaution (UP) among medical, dentistry and nursing students.

Methods
Cross-sectional, self-administered, anonymous survey conducted in 2007/2008 among medical (resident physicians and internship), dentistry and nursing students working in teaching hospital in Bandung, Indonesia. All students with an internship period of minimal one year were included.

Results
The questionnaire was completed by 941 respondents (74.5% of 1242 students). Within one year, 73% of medical, 39.8% of residents, 35.7% of dentistry and 45.5% of nursing students experienced at least one SI; total number of 971 SI were reported. SI occurred mostly in emergency room (42%). Of all students 83.8% considered insufficient facilities and 73.2% urgent response as the cause of SI. Most respondents (99.4%) perceived them-self at risk for an occupational BBI. Only 60.6% were vaccinated against Hepatitis B; Almost all of the students (97.2%) knew about UP, however only 25% of them had particular training on UP.

Conclusion
Medical, dentistry and nursing students have significant potential exposure to BBI mainly due to occupational SI. Rate of SI is higher among medical students. Prompt and continuous specific training on UP and Hepatitis B vaccination coverage for students should be improved.

Lesson learnt
Occupational health practices among medical, dentistry and nursing students in developing country is a major concern.

ABSTRACT NUMBER: PO 7
Hepatitis B Vaccination in health care workers and students in a teaching hospital in a developing country

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Background
Hepatitis B is one of the important occupational hazard to health care workers (HCWs) which is preventable by vaccination. This study aimed to identify status of hepatitis B vaccination among HCWs and students in a teaching hospital in a developing country.

Methods
We used a cross-sectional, self-administered, anonymous survey conducted in Sept 2007 – June 2008 among HCWs (professional staff) having direct patient/human material-contact from all departments and students (residents, medical, dentistry and nursing students) in Hasan Sadikin teaching hospital in Bandung, West-Java, Indonesia.

Results
The questionnaire was completed by 1656 HCWs and 1114 students (81% of 3422 total respondents). Of the entire HCWs 45.5% were never vaccinated against hepatitis B, 56.8% of them got complete dose (3 doses/3 doses booster), 31.5% had incomplete dose (1 or 2 doses) and 11.7% did not remember the dose. Compared to the students 60.6% were vaccinated, 69.3% were fully vaccinated, 19.7% were incomplete vaccinated and 11% unknown dose; 47.6% of the students had been vaccinated because of personal initiative, 3.6% as mandatory, 20.2% by friend/family suggestion and only 27.6% vaccinated because of institution recommendation. Most respondents (87%) perceived themselves at risk for an occupational Blood-borne infection; 79% would like to know their hepatitis B status. However, only 68% believed they had high risk of occupational risk while 25% assumed moderate level and 7% as low level.

Conclusion
In developing country like Indonesia where there is no official recommendation towards hepatitis B vaccination from the authority, the coverage of full vaccination is low in HCWs and students. There should be an evaluation on existing hepatitis B-related policies, strategies and practices.

Keyword
Hepatitis B, vaccination, health care worker.

ABSTRACT NUMBER: PO 8

Relationship between use of internet with research and educational activities

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Background
The growth of new technology makes easies direct access to information for users. Internet technology should use in new designed educational and research strategies. Therefore internet has further made the teaching and research functions for faculty members. The aim of this study was to determine the relationship between use of internet with research and educational activities of faculty members in Jahrom University of Medical Sciences (JUMS).

Methods
This analytical cross- sectional study was carried out on all faculty members (n=70) in JUMS, IRAN, 2010-2011. The data was gathered by validated questionnaire including scientific- research activities and use of internet. The data were analyzed by using descriptive and analytical statistics by SPSS-16.

Results
The data shows that 46.3% of faculty members have gone online to find information from the e-journals, 69.6% e-books, 26.1% abstracting and indexing services and 18.8% databases. The percentage of search engines used among faculty members was 67.9% Yahoo, 82.6% Google, 11.6% AltaVista and 23.1% library resources. There was a significant relationship between use of internet and scientific activities of faculty members (p=0.004) and also between teaching in workshop and use of internet by faculty members (p=0.02).

Conclusion
The use of internet was so effective on increasing the quality of educational and scientific activities. It is recommended to encouraged and training of faculty members to use of internet in information sources for study and research purposes.

ABSTRACT NUMBER: PO 9

Personal characters and educational stressors in probated and non-probated students

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Introduction
One of the major problems for students in higher education centers is probation during their course of study. The present study was performed to compare personal and educational stressors for probated and non-probated students in nursing school in Jahrom University of Medical Sciences (JUMS).

Methods
In this case-control study, all probated students (n=30) and 45 non-probated students were enrolled in nursing school of JUMS, 2005-2009. The data was gathered by a questionnaire including demographic features, mental health and educational stressors. Data analysis was carried out using SPSS-16, by in-depended T-Test, chi-square and fisher test.

Results
This study revealed a higher number of probated students in boys than girls. There was a significant difference between the case and the control groups in the mean score of opinions about the educational stressors (P= 0.029). In addition, there was a significant difference between the score of after graduation stressors in the case and the control groups (P=0.026). However, there was no significant difference between mental health score in the case and the control groups (p=0.56).

Conclusion
Students' personal characteristics and their living conditions have a significant effect on academic probation. Probated students enjoyed mental health less than non-probated. Educational programs should could identify at - risk students and provide proper consultation to facilitate their education.

ABSTRACT NUMBER: PO 10

The effect of BLOOM empowerment model on life skills promotion in girl student grade 3 in Jahrom (2009-10)

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Background
The main purpose of this study is detection the effect of applying BLOOM model (Better Life Options and Opportunities Model) to promoting life skills in third base high school girls.

Methods
The study is a quasi-experimental one (having case and control groups).In needs assessment phase, among all the statistical community, that including all of the girl students of the third high school, parents with high school degrees and their teachers and counselors, 200 person was selected through a multi-stage cluster sampling. In the training phase, 45 third high school girl students were selected in each case and control groups through cluster sampling. Data was collected by researcher-made needs on three areas and assessing knowledge, attitude, performance and advocacy about the first three skills. Their validity was achieved by 7 health education specialists and experts in psychology and reliability was evaluated through Alpha Cronbach test. After needs assessment and doing pre-test intervention as skills training in the form of lecture, slide show, group discussion and role playing during the eight sessions for case group students and a lecture session for parents and teachers were conduct. Education was completed through distribution of educational booklets, posters and leaflet among case group, their parents and teachers. One month after the educational intervention, case and control groups, again were evaluated by the mentioned tools. Data analyzed and compared by using descriptive and analytical tests and SPSS version16 statistical software.

Results
Skills, self-Awareness, effective communication with others and decision making as three first priority, were identified.T-test results showed that the mean difference scores of knowledge, (p-value=0/036), attitude (p-value=0/047), performance (p-value=0/038) and environmental support system (p-value =0/002) than three skills mentioned in the case and control group were statistically significant.

Conclusion
Using BLOOM empowerment model with components such as strengthening support system in the family, school environment and community in addition to training students, can be effective on life skills promotion.

ABSTRACT NUMBER: PO 11

Using tutorial as a learning strategy to enhance mother's behavior in under-five children nutrition rearing: A Community-Based Educational Research to test the nutrition rearing model

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The result of 2005 Fast Up Program USAID WVI survey in three poor sub- districts in Surabaya revealed mother's helplessness in under-fives rearing. Child-rearing significantly determines child growth as the indicator of their nutrition status and mother's role is the most important factor in lightening the negative effects of nutrition problem. Therefore, mothers needed to be empowered in nutrition rearing of the under-fives through its risk factors approach. This empowerment is best to be in an easy to understand form, able to be communicated intensively and related to the need of preventing malnutrition.

This empowerment is done by accompanying the mother to upgrade the mother's behavior in rearing through individual teaching module tutorials for six months. Module, as a tool, was compiled based on a rearing model obtained from an analysis of 1085 secondary data of a survey, Assessment of Under Five and Mother Nutrition Status Database in Surabaya in 2005 by Lisrel. Module was given in several steps to 38 mothers in trial group in poor sub-districts, Tegal Sari, Simokerto and Kenjeran, Jawa Timur Indonesia. Overall this program is one health promotion and called 'The Assistance of Nutrition Rearing by Tutorial' (ANRET). Pre and posttest were given in every step of the module. Home visits were also done to the trial group, especially to those with rearing problem.

In Manova and Two sample t test were p<0, 05, improvement in mother's behavior in under-five's nutrition rearing were found. This improvement was found after 2 to 3 months. The ANRET program is effective in improving mother's behavior in rearing under-five nutrition.

Keywords
Tutorial, behavior, under-five, nutrition, rearing, mother, model, poor, Surabaya.

ABSTRACT NUMBER: PO 12

Self confidence, academic performance and learning style: Do they integrate?

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Background
The academic performance of a student depends on study habits including the learning style. The performance may also be related to their confidence levels. Judging and believing in one's ability (self-esteem and self-confidence) are also inter-related. Based on this assumption, students' self confidence and academic performance are expected to be related. The study evaluates the relationship between (i) the principles of 'self-concept' (that represent self-esteem/ self-confidence/self-respect) and academic performance and (ii) learning style preference and academic performance. We hypothesize that students with high self-confidence should do well academically and students with a strong orientation for one or two particular learning preferences may achieve a different level as compared to multimodal style preferences.

Methods
With prior consent from 83 medical students of the UniSZA, Rosenberg self-esteem and VARK (Visual, Auditory, Read/ Write, Kinesthetic modes respectively) questionnaires were administered on them to measure self- esteem and learning style preferences respectively. The academic performance was based on the overall results of the formative assessments.

Results
On the whole 73% of the 83 respondents preferred multimodal style followed by 16%, 9% and 2% single, dual and trimodal styles respectively. Among the single mode preferred category, there were no takers for visual mode. The preference was almost equal (5%) for the other 3 single modes. The preference was slightly over 1% for dual and trimodal options but for AK mode with 3.7%. Females registered not only a higher number for all modes of learning but also showed a different level of preference for certain modes as compared to the males. The results did not show any cause effect relationship between the tested variables.

Conclusion
The study revealed gender differences in preferred learning styles without bearing any effects of self-concept and academic performance on each other.

ABSTRACT NUMBER: PO 13

Developing drivers of curriculum change within a traditional medical school resistant to change

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Background

Major curriculum change in a medical school can generate stiff resistance. The Faculty of Medicine, University of Ruhuna having a traditional type of curriculum and teaching learning methods was no exception. Unsuccessful attempts at major curriculum change were made several times over duration of 16 years. Therefore a different strategy was adopted to initiate the process of change. A "component of integrated learning" (CIL) in hematology was formulated by horizontal integration of 2nd MBBS subject's content. This module included PBL, Video presentations, a clinical patient based approach, student lead seminars etc. These were proposed changes in the major curriculum change which stalled due to resistance. The objective was to generate sufficient enthusiasm, confidence and a "need for change" through this innovation thereby making these the "drivers of change" for the curriculum change within the Medical School.

Methods

Following the completion of CIL Medical Students (MS) were given a self-administered questionnaire (SAQ) with a response scale. Focus Group Discussions (FGD) was conducted with MS. Perceptions of Medical Teachers (MT) conducting CIL was obtained using unstructured interviews (UI). Data were analyzed using SPSS descriptive statistics and grounded theory

Results

157 MS participated in the study. Six MT were interviewed. (The repose scale varied from 0 to 10.0=strongly disagree, 5=Neutral, 10=strongly agree)

Questions	Mean	SD	% of MS > 5
CIL was a different kind of learning experience	7.34	2.34	74.1
I was able to understand how the subject content would be relevant to me as a doctor.	5.32	2.71	72.8
I prefer CIL more than traditional lecture based learning.	5.95	2.77	61.4
CIL was a better learning experience than normal lectures.	6.22	2.71	62.7
Integrated learning is more helpful to understand the subject.	6.37	2.67	66.5
The videos made me interested in the topic.	7.48	2.75	70.3%
PBL sessions were helpful to gain further understanding.	6.61	2.81	68.4%
Teachers were competent in the TL methods used including PBL.	6.50	2.44	74.1%

FGD with MS revealed that the change was welcomed. MS preferred fine tuning of CIL. MS were keen for more CIL. Some MS experienced difficulties due to poor English competency and lack of self-learning skills. UI with MT revealed that the change was well accepted. Enthusiasm was generated to include more CIL. MT enjoyed the new teaching methods. The need to obtain more training in conducting PBL was emphasized.

Conclusion

Implementing a curriculum change within a selected segment of the curriculum in institutions which strongly resist change will serve to breakdown resistance; generate enthusiasm and a "need for change" in MT and MS. These could be utilized as drivers for change.

ABSTRACT NUMBER: PO 14

Comparison of admission criteria between military medical students and civilian medical students in Sri Lanka

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Background

Entry into medical schools in Sri Lanka is highly competitive. The highest Z- scores at the Advance Level Examination (ALE) based on all island and district quota rankings is used as the only criterion for selection. In 2009 a Defense Medical School (KDU) was established to train Military Doctors. In addition to the Z score the selection criteria for this medical school was based on an IQ test, English competency, General Knowledge, psychometric test, physical parameters ,fitness test and a medical test. The objective of this study was to compare the IQ levels, English competency, General knowledge and presentation skills between Military Medical Students (MMS) at KDU and Civilian Medical Students (CMS) at the University of Ruhuna, Sri Lanka.

Methods

35 new entrants Ruhuna Medical Students who volunteered for the study and 25 Military Medical Students were administered the same IQ test and the English test. They were interviewed to examine General Knowledge. An impromptu speech on a randomly selected topic was used to test the presentation skills. The mean marks obtained by both groups for each component mentioned above were compared using independent samples- T test. Correlation between marks obtained for these components were studied using Pearson's correlation coefficient.

Results

The MMS had significantly lower Z-scores ($P<0.001$) at the ALE but scored significantly higher marks (P value < 0.01) in the IQ test and the interview which tested General Knowledge. There was also a significant positive correlation between the marks obtained for the Impromptu speech and the interview testing general knowledge. (Pearson correlation $r2=0.3$, $P < 0.05$). There was no correlation between the Z score and any of the other variables.

Conclusion

"The Z score" as the only criterion used by the UGC in Sri Lanka for selection into medical schools is being challenged by these findings.

ABSTRACT NUMBER: PO 15

On the attitude of nursing and midwifery schools students toward education and performing BLS

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Introduction

BLS, BLS is a series of general skills which is done in order to treat serious cardiovascular problems and involves two major maneuvers: Airway Management and CPCR (Cardio Pulmonary Cerebral Resuscitation), CPCR is an emergency medical operation which is performed in cases of cardiac respiratory arrest. Since CPCR and Airway Management are two treatments which need no instruments it seems a necessity for everybody and specially students of medicine

as those who are engaged in medical fields. Consequently we decided to hold a BLS workshop for freshmen of Shiraz University of Nursing and Midwifery and hereby we want to present the analysis of the workshop's rate of success.

Methods
The mentioned study was facilitated/conducted by Educational Development Center. 36 students participated in the study. The questionnaire included 36 questions confirmed by professors of Emergency Medicine Department of Shiraz Medical University and each had 3 choices: yes, no and not sure; the results analyzed by SPSS 15. All students had to complete both pre-test and post-test questionnaire.

Results
97.1% students in pre-test declared that in case I witness a cardiac arrest, before I doing resuscitation I ask for help VS 52.6% in post-test. In case I witness a stranger's cardiac arrest, I immediately start CPR, 38.9% said yes in pre-test and 47.2% in post-test. Students confirmed that due to inadequate knowledge for CPR they are afraid of doing that (86.1% pre-test and 8.3% post-test). In a situation when they expose somebody who is stricken by cardiac arrest, an 83.3% (pretest) act well avoiding it's psychologically affects VS 94.5% (post-test). 94.5% Students claimed that they have tendency to take part in CPR supplementary courses after the workshop while 83.3% said before.

Conclusion
The results showed that students are eager for BLS workshops and performing such operations in necessary occasions, but it seems they need a wider continuous education. After all we suggest more time being allocated to BLS in educational syllabus and the education goes on as some programmed courses even after graduation.

ABSTRACT NUMBER: PO 16
Knowledge on post-operative pain management interventions among adult patients (20-60 years) at a hospital in Kuala Lumpur, Malaysia

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Background
Post-operative has been unsatisfactorily managed in the nursing care of patients following surgery.

Objective
The objective of this study was to determine level of knowledge post-operative pain management interventions among adult patients (20 - 60 years) following laparotomy at a hospital in Kuala Lumpur, Malaysia. Research question: "What is the level of knowledge of post-operative pain management interventions among adult patients (20 - 60 years) following laparotomy?"

Methods
A quantitative descriptive study was conducted on 50 adult males and females who had laparotomy as first surgery and on 2nd to 3rd post–operative day. Non-probability convenience sampling method was used to obtain the sample that excluded acutely ill patients. A closed ended questionnaire was used to gather data pertaining to knowledge of pain management, cultural, religious perceptions and practices, pain control interventions outcomes. Data were analysed using descriptive statistics (percentages and frequencies) utilising Statistical Package for Social Sciences (SPSS) software.

Results
Pain following surgery was stated as a normal experience by 92% of subjects. Only 22% knew degree of pain is judged by the patient. Pain killers were stated as main methods of pain relief by 86% of subjects. Deep breathing exercises and supporting wound to reduce pain was stated by 80% and 72% of subjects respectively, 90% mentioned praying and meditation, 66% and 60% stated use of herbs and acupuncture respectively. Risk of complications with inadequate pain control was stated by 94% of subjects.

Conclusion
Overall level of knowledge of pain management interventions was high among subjects. The belief that pain is a normal experience after surgery and that health care providers judge severity of pain may lead to inadequate pain control measures. Cultural and religious beliefs and practices have a major role to play in pain management following surgery.

ABSTRACT NUMBER: PO 17
Psychological well- being of undergraduate nursing students in India

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Psychological well-being is very important for everybody. Depression, anxiety and stress affect the psychological wellbeing of nursing students. The aim of this study is to identify the prevalence of depression, stress and anxiety among nursing students. Second aim is to identify gender and year of the study differences on the depression, anxiety and stress scale among nursing students. In this study 96 undergraduate nursing students participated from two colleges in India. Depression, anxiety and stress (DASS) scale was used to measure the non - depression, mild, moderate, serve and extremely sever levels of depression, anxiety and stress. Results showed that moderate levels (21.9 %) of anxiety and mild level (19.0%) of depression were high compared with other levels of depression and anxiety. T-test showed significant difference between male and female students on anxiety. ANOVA followed by post hoc test showed significant difference between 2nd & 4th year students in their stress and depression compared with 1st & 3rd year students. Second year students' experienced a higher amount of stress and depression compared to fourth year students.

ABSTRACT NUMBER: PO 18
The awareness and effectiveness of "Not-Smoking" campaigns (Kempen Tak Nak)

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Objectives
The objectives of our study was to assess the public awareness and effectiveness of the "Tak Nak" national public health promotion campaign on anti-smoking in people attending an urban primary health care centre as well as identifying the effectiveness of tobacco industry marketing strategies.

Methods
This is a systematic random sampling of a cross-sectional quantitative study conducted in Klinik Kesihatan Seremban from December 2009 to April 2010 on 327 of smokers, non smokers and ex smokers. Fagerstrom score was used to measure the nicotine dependence in smokers.

Results
305 completed surveys were analysed. 93.4% of the respondents were aware of the 'Tak Nak' campaign in which 43% thought that the campaign is effective in helping smokers to quit smoking, abstain from cigarette smoking for a period of time, reduce number of cigarette smokes or prevent non-smokers from smoking. However, the 'Tak Nak' campaign managed to help 25.6% of smokers to quit smoking. Sales of loose cigarettes has shown to be the most influential factor in attracting the public to smoke with 54.1% of the respondents think it is highly influential, 36.2% of the smokers and ex- smoker thinks that medical advice either during medical-check up or through "quit smoking clinics" from medical practitioner helped and medical advice has helped 35.7% of ex-smokers to quit smoking. 62.8% of the smokers support total ban of cigarette as an effective to "quit smoking" reduces cigarette smoking.

Conclusion
We found that the majority of the participants are aware about the existence of the 'Tak Nak campaign. However, slightly less than half of the participants think the campaign is effective in helping people to quit smoking. The majority of them think that total ban of cigarettes is the most effective method to discourage smoking.

ABSTRACT NUMBER: PO 19

Status of mental wellbeing among a group of new entrants to a Medical Faculty in Sri Lanka

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Background
Mental health constitutes a major yet often neglected part of human health. Thoughts that gain access into mind can have clinically non apparent adverse outcomes on health. Thus it is important to identify variables constituting mental health and to use them to identify aspect of mental well being among a group of new entrants to a faculty of medicine.

Methods
A List of mental health variables was compiled and circulated among a selected group of professionals and examined to determine patterns with practical significance. A Questionnaire was developed with selected variables and a descriptive cross sectional study was done. This self administered questionnaire was administered to a batch of new entrants to a Faculty of Medicine in the Western Province as a pre-intervention assessment of mental health promotion program.

Results
A Total of 134 students comparing 50 (37.3%) males and 84 (62.7%) females were studied. Ages ranged from 19-24 years with more than 90% between ages of 19-21 years. Majorities ranged were Buddhists (88.8%) and were from Western province (82.8%).

More than 50% of students were satisfied with the amount of money available to spend, food taken during previous week, amount of clothes they had. Approximately 50% were extremely willing to help people. 30% had high levels of stress during previous week. More than 70% had got extremely angry during previous week. Smaller, yet a considerable percentage were worried about their future and unhappy about their past.

Conclusion
Varying degrees of defilements occur in apparently healthy new entrants to this faculty. No significant deference was observed across socio demographic strata. Considerable percentages of students were extremely stressed, unable to control anger and worried about their future necessitating introduction of a mental health promotion programme.

ABSTRACT NUMBER: PO 20

Influences on Malaysian pharmacy students' career preferences

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Background
In Malaysia, little is known about pharmacy students' reasons for undertaking pharmacy degree programs, preferences about their career and professional role; and opinions about mandatory government service. Thus, this study was conducted to assess the influences on Malaysian pharmacy students' career preferences in the presence of a 4-year period of mandatory government service.

Methods
A validated self-administered questionnaire was used in this cross-sectional study to collect data from final-year BPharm students enrolled at 3 government-funded universities and 1 private university in Malaysia. Both descriptive and inferential statistics were used for data analysis.

Results
Three hundred fourteen students responded (213 from public universities and 101 from the private university). Approximately 32% of public university students and 37% of private university students ranked their own interest in pharmacy as the reason for undertaking pharmacy degree studies; 40.4% of public and 19.8% of private university respondents stated that they would enter a nonpharmacy-related career upon graduation if given the choice. Public university students ranked hospital pharmacy as their choice of first career setting (4.39, p 0.001), while private students ranked community pharmacy first (4.1, p 0.002). On a scale of 1 to 5, salary received the highest mean score (3.9 and 4.0, p 0.854) as the extrinsic factor most influencing their career choice.

Conclusion
Study participants were most interested in hospital pharmacy practice as their first career step upon graduation, while private university students were most interested in community pharmacy. The top 3 extrinsic factors rated as significant in selecting a career destination were salary, benefits, and geographical location.

ABSTRACT NUMBER: PO 21

Neurophobia – Students' and doctors' views

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Background
Neurophobia is the fear of neurosciences held by medical students and doctors. The objective of the study was to find out whether Neurology is considered a difficult subject.

Methods
A questionnaire based study was carried out directed at 148 medical students of the University of Sri Jayewardenepura and 100 doctors from the Colombo South Teaching Hospital. There were 11 questions of which nine were close ended and two were open ended designed to assess the degree of perceived difficulty compared to other subjects, and the reasons. The analysis was done using SPSS.

Results
Neurology was ranked the most difficult subject by 108 (46.6%) participants and cardiology by 34 (14.7%) and endocrinology by 33 (14.2%). There was a significant difference in the rating of difficulty of the seven specialties, $F(6, 1701) =$, $p < 0.001$. The level of difficulty was highly significant when compared to Dermatology, Respiratory Medicine, Rheumatology, and Gastroenterology with a p value < 0.001 and also significant when compared to Cardiology and Endocrinology $p=0.001$. Neurology was ranked the third favourite with a mean score of 4.01 and Cardiology the most favourite with a mean score of 4.5. When asked about current level of knowledge, Neurology was ranked third (Mean 2.56). Participants felt least confident when faced with a Neurology based clinical situation ($p<0.001$). The lack of knowledge in the basic sciences was considered the most important factor for neurology being considered difficult and the complexity of the neurological examination was the next most important reason.

Conclusion
This study shows that Neurology is considered a difficult subject by medical students and by doctors and provides some insight for this concept.

ABSTRACT NUMBER: PO 22

Increasing quality of life among chronic heart patients through a Multidimensional Program for their Companions

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Background
Nowadays chronic heart diseases are one of the most widespread disorders among societies. During last years in Iran mortality frequency which is rooted from heart-chronic diseases has been reported as 125000 people per year. This high frequency and patient needs to supportive action against disease's consequences would be more necessary. As a social constructive view companions play an important role for refine patient's quality of life. The study questions were if the patient's quality of life increases by a instruction program for their companions; and if patients' companions' attitudes toward patient and her/his disease and supportive skills improve.

Methods
A sample as 50 persons was selected among companions of heart-chronic patients whom were bedridden in special ward. Sample partitioning to experimental and control groups (each one contains 25 person) and experimental treatment done randomly. A multidimensional (cognitive, emotive, and behavioral) program had been instruct in hospital conference hall from a day after patient confinement. Both groups were assessed twice (before and after instruction) by using attitude toward heart-chronic patient scale, heart-chronic disease Knowledge test, and patient aids checklist

Results
Instructing multidimensional skills program shows significant increase in heart-chronic disease knowledge, significant refine in attitudes toward patient (cognitive, emotive, and behavioral dimensions), and improve patient aids skills, all. . Refinement in altitude was not equal in three dimensions. Thus control group didn't show any statistical significant difference

Conclusion
The multidimensional skills program could be effective to improve significantly patients quality of life that suffer from heart-chronic diseases. It is recommended to perform and experiment about other factors correlated with patient quality of life to define a structural equation model.

ABSTRACT NUMBER: PO 23

Tweaking Community social responsibility towards high impact learning: Dental students perception

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Background
The International Medical University (IMU) has a strong commitment towards community service and providing quality education. Community service responsibility (CSR) is one of the global approaches where institutes reach out to the communities and benefit them by catering to their needs. Using CSR as a learning tool, the IMU School of Dentistry aimed to enhance students' commitment to community service, improve oral health status of the community and strengthen partnerships with the community. The School believes that dental education should cultivate graduates who have a broader understanding of health and social service, with strong sense of civic responsibility to patients, family, or community members in need of help. Feedback from the dental students who participated in CSR activity was studied by using a validated structured questionnaire that aimed to acquire students' perception of such activities in enhancing their personal and professional development as well as how they perceived the activity had benefited the community served.

Methods
Community Social Responsibility (CSR) activities were planned and publicized to the community to receive complimentary dental check-up and advice on a day in the weekend. Thirty-six (36) 2nd year assisted thirty-two (32) 3rd year dental students in conducting free dental screening, caries and periodontal risk assessments and provided customized oral health education to individuals who visited the IMU Oral Health Centre on the CSR day. All students had passed their basic competency tests to work

in the dental clinic before they were recruited for this study. Patients found to have chronic pain or temporomandibular joint problems were referred to dental lecturers on duty for diagnoses and advise. At the end of the CSR activity a validated and structured questionnaire was administered to assess students' perception towards their own personal and professional development (PPD) and how such activities had benefited the community.

Results
Response rate was 100% from all 68 respondents. Relating to the PPD component of questionnaire; 92 % (n=62) reported that CSR contributed positively to their PPD by improving their communication skills with patients. Regarding the community-related component; it was found that 92% of the students considered that the CSR project had increased public awareness towards oral health, helped in early detection of oral diseases and 84% (n= 57) felt that CSR helped to inculcate habits of effective oral health practices within the community.

Conclusion
Incorporating CSR activities into the dental programme can enhance students' personal and professional development especially in their communication skills besides increasing their appreciation of providing health service that benefits the community.

ABSTRACT NUMBER: PO 24
Buddy Network – a modified Peer Assisted Learning programme: Year 1 students' previous experience and initial perceptions.

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Background
The Buddy Network programme was organized to enhance and formalize our peer assisted learning (PAL) activities. After its preliminary activity, we distributed questionnaire to evaluate the Year 1 students' prior experiences with PAL activities and their perceptions about this programme.

Methods
The Buddy Network requires the Year 1 students to find one buddy in each academic year, i.e. having 4 buddies total per student. The following year, new Year 1 students will connect with Year 2 buddies who already have existing senior buddies. The preliminary activity was held immediately after the Year 1 orientation, with Year 4 students and MEU members as facilitators. The Buddy Network was introduced and a few senior students described their previous PAL experiences. Exciting small group activities were held to enable the students to mingle. It ended with administration of a questionnaire.

Results
Our main success was that 98% of the Year 1 students had secured Year 2 buddies. Majority had made plans to share notes and experiences, have discussions and conduct ward rounds together. 37.6% of the students have heard of a similar programme and only 16.5% have been involved in such a programme. Majority of the latter had previously attended boarding schools. Majority fully understood the Buddy Network, and agreed that this is an excellent platform to share knowledge. Majority felt that this programme will be successful, however, almost a third were neutral regarding this, revealing skepticism. 80% of the students were willing to allocate time to spend with their buddies. 63% of students wanted scheduled activities with supervisors in attendance. Approximately half felt that they themselves could run such activities independently, while a third were neutral, and only 11.3% disagreed.

Conclusion
Few students hade prior PAL experience, emphasizing the need for training. The Buddy Network would combine both independent and supervised activities.

ABSTRACT NUMBER: PO 25
Prevalence and risk factor of Muscloskeletal Disorders (MSD) among medical and pharmacy students in a Malaysian medical college

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Background
During medical school, students are exposed to stress, study problems, long standing hours in hospital wards and clinics, in addition to the increasing use of computers in teaching and learning. These factors may increase the prevalence of MSD among university students. This study aimed to determine the prevalence and risk factors of MSD among medical and pharmacy students.

Method
This cross sectional study was conducted among (n= 928) medical and pharmacy students in a private medical college using online questionnaire. The questionnaire was a modified Standardized Nordic Questionnaire focused on neck, shoulder and back pain in the previous week and previous year.

Results
Two hundred and eighty seven students responded (Mean age = 20.7 ± 2.1 SD). Majority were female (n=193) (67.2%). One hundred and thirty (45.3%) of all students had at least one MSD in the previous week and 146 (50.9%) had at least one MSD in the last year. One hundred and four (45.2%) of medical students had MSD in the previous week and 115 (50%) had MSD in the previous year. Twenty six (45.6%) of pharmacy students had MSD in the previous week and 31 (54.4%) had MSD in the previous year. MSD in the previous week was significantly associated with increased body mass index (BMI) (p=0.007 mean 23.2 ± 4.7 SD), history of trauma (p<0.01) and family history of MSD (p=003). While MSD in the previous year was associated with computer use (p=0.044, median of daily hours 5.0 ± 2.9 SD), history of trauma (p<0.01) and family history of MDS (p=008).

Conclusion
A further clinical assessment is needed. The self-reported results imply that medical and pharmacy students have to be aware of MSD risk factors that may affect their health and future career.

ABSTRACT NUMBER: PO 26

Effect of sex education on preventing HIV in a local male community in Sri Lanka

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Background
Correct and consistent use of condoms is an important strategy for preventing HIV. Literature reveals that use of condoms among non-regular sexual partners is extremely low in Sri Lanka. This study aimed to identify perceptions about safe sex in a high-risk population of HIV in Sri Lanka.

Method
The study was conducted in the STD clinic in Kandy. A sample of 112 respondents was selected among new male clinic attendees in 2009 using systematic random sampling. Data were collected using a semi-structured questionnaire and analyzed by descriptive statistics and direct interpretation.

Results
A majority (94%) of men had studied up to GCE/OL or above and 2% had not gone to school. Eighty seven percent had experienced premarital sex. In the past six months, 14% always used condoms with non-marital partners. Condom use was mainly confined to prostitutes and vaginal sex. Common reasons for non-use of condoms were the belief that the partner is faithful, lack of knowledge about the risk of unprotected sex, view that condom take away pleasure and harms intimacy, and inhibition to access condoms in public. The respondents often thought that casual sex partners are safer than prostitutes. Many respondents did not know that anal or oral sex without a condom is risky. Ninety four percent had never asked about the HIV status of their non-regular partners before engaging in sex. They thought that question harms the intimacy of the relationship.

Conclusion
Reproductive health including HIV and other sexually transmitted infections is taught in secondary school education (GCE/OL) in Sri Lanka. However, this study indicates ignorance of safe sex, poor risk assessment of sexual partners and stigmatization of HIV in the study population. This highlights specific deficiencies in the sexual health education in Sri Lankan schools.

ABSTRACT NUMBER: PO 27

Understanding, perception and self-use of complementary and alternative medicine among Malaysian dentistry students

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Background
Medical teaching outside conventional curriculum related to traditional medicine has always been limited in most of the developing countries. A high self-use of complementary and alternative medicine (CAM) by the healthcare students has been reported, however studies on CAM among dentistry students is limited. Thus, the objective of this study was to assess the understanding, perception and self-use of CAM among the dentistry students in Malaysia.

Methods
A total of 267 first to fifth year dentistry students completed a validated, self-administered questionnaire (66% response rate) developed to assess their understanding, perceptions and self-use of CAM. Data for this cross-sectional study was collected from one public and one private university in Malaysia. A simple random technique was used to recruit the study participants. Descriptive and inferential statistics were carried out using SPSS version 13 with the level of significance, 0.05.

Results
More than half of the students participated in this study were female and Malay. Students perceived massage (mean=2.34) and traditional Chinese medicine (TCM) (2.48) as effective and this was significantly associated with their gender (p=0.002), race (p=0.006) and year of study (p=0.034). Lack of trained professionals (64%) was reported as the main barrier to the use of CAM followed by lack of scientific evidence to support the use of CAM (63.7%). Majority reported friends and family members as the main source of information about CAM. About 53% reported to have used CAM, of these, 17% were currently using TCM and 36% had used CAM previously. Majority of them showed positive attitude towards integration of CAM education into their curriculum.

Conclusion
This study has found better understanding, positive perception and high self-use of CAM among dentistry students. Integration of CAM education into the dentistry and nursing course would influence or change the students understanding, self-use and perception on CAM.

ABSTRACT NUMBER: PO 28

Learning and motivational styles of Medical Students at Angeles University Foundation-School of Medicine: Implications in teaching and learning process

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Background
Identification of learning styles among our students have been recognized to be fundamental in understanding the teaching-learning process. Various studies have underscored its potential utility not only in student's learning process but also in instructor's teaching style. Coupled with their learning styles, identifying their motivational styles may appear to be valuable in predicting academic success. The present study aims to establish the profile of learning and motivational styles of our preclinical medical students and draw some implications in teaching-learning process relevant to their medical education.

Methods
A descriptive study conducted to describe the learning and motivational styles of our pre-clinical medical students using the Kolb Learning Style Inventory, Conner's Learning & Motivational Styles Questionnaires at Angeles University Foundation-School of Medicine.

Results
There were 111 medical students responded the inventory and questionnaires. This study has identified 40.5% as converges and 35.1% as assimilators. Majority of students were visual learners (52.3%). Students entering the medical

school were motivated largely by their goal (39.6%) followed by learning (26.1%). Females were mostly converges (48%) and males were mostly assimilators (42.6%). While both males and females were predominantly visual learners (62.8% and 57.4%, respectively), it was observed that more females were auditory learners (23.3%) and more males were tactile/kinesthetic learners (33.3%). Assimilators, auditory learners and relationship-motivators have relatively better academic performance compared to students with other learning styles.

Conclusion
The proof of evidence in this study has validated the wide diversity of learning and motivational styles among our medical students. Best indicators for effective implementation of instructional strategies still rest on the concerted efforts of both the teachers and students to make learning experience rewarding. Indeed, understanding our students which include their learning and motivational styles among others is the basic step in the planning, implementing and evaluating medical education.

ABSTRACT NUMBER: PO 29
The effect of student extracurricular activity into their Grade Point Average (GPA)

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Introduction
Student extracurricular activity is an educational experience that is needed to develop essential skill for more qualified health professionals in the future. Faculty of Medicine, Universitas Padjadjaran has 17 Units of student extracurricular activity which can be chosen by students during their study until they finish their bachelor degree. This research was conducted to evaluate the impact of those students activities onto their academic result.

Methods
Faculty of Medicine Universitas Padjadjaran has 1301 students and 17 units of students extracurricular activity which consists of 7 sports and physical activities, 4 arts units & 6 leadership units. Simple random sampling for those three groups and one group of student which with extracurricular activity, were compared, using t-test.

Results
This result is still waiting for the academic result at the end of this semester arround end of January 2011 then will be statistically tested to know whether there are significantly different all among sample from the groups of students with extracurricular activity and students with no extracurricular activities.

Conclussion
The conclussion will describe the comparison of student academic achievement between group students which have extracurricular activity and the other group which has no extracurricular activity.

ABSTRACT NUMBER: PO 30
The experience of the committee for students under probation in the College of Medicine and Health Sciences, Sultan Qaboos University (Oman)

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Background
Medical students are placed under probation if they performed badly in a particular semester, then remedial actions can be sought to rectify their path. Those who do not improve will be expelled. Between 10-15% of medical students in the College of Medicine, Sultan Qaboos University (SQU), are usually placed on probation every semester. In general, the factors contributing to the poor academic achievement can be attributed to two main categories: the internal and the external factors. The first includes emotional disorders (anxiety and depression), sleep problems, psychiatric disorders (as Schizophrenia and cultural shock), language difficulty, endocrinal disorders (as thyroid dysfunction and diabetes)...etc. The external factors include social and family problems, financial difficulties, inappropriate curriculum, badly chosen friends, unsuitable housing conditions etc.

Methods
SQU administration created a committee in every college to look after the students under probation in 2005. We describe here the experience of the committee in the college of Medicine, which consists from six members, headed by the Assistant Dean for preclinical Affairs. During the routine meeting of the committee with these students individually, we try to find the possible causes that put the student under probation. The student's advisor must be present during the meeting, or provide a report about the student if he could not attend. Those who require additional psychiatric evaluation are referred to a psychiatrist (a member in the committee) in the clinic separately, where is given the appropriate management. In order to improve the students' performance, many lines are adopted, as better relationships with the academic advisors, who can inform the student about the points of his/her weaknesses and strengths; help them to choose the relevant courses; and to alleviate unnecessary anxious and depressive states that may be encountered during their studies by positively reinforcing them and increasing their self confidence. Also regular visits to the students' counseling center are of vital importance to find solutions for the social and personal problems.

Conclusion
It is really a successful and positive experience, as we found good results and improvement in students' performance following the meeting and direct communication with them, they knew their deficits/problems and rectified them with the help as described above.

ABSTRACT NUMBER: PO 31
Student's perspective on the availability of skill practice during their clerkship period

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Backgrounds
Practicing skill on the medical practice is one of medical doctor competence. By the skill acquisition of student on their skill, the availability of cases that need some medical skill performed is required. Medical school has conducted efforts to ensure the number of cases is sufficient Nevertheless; it still needs evaluation, especially by student.

Methods
Questionnaires were distributed to the FMAU's graduates' period of January 2010. The questionnaire contains graduate's opinion on their clerkship period, and some specific skills (based on learnt skill in the skills laboratory) that practiced during clerkship period. The questions are developed in Likert scale (1-4). They also asked in the open question related to their clerkship period, especially due to their skill practice. All of them are returned and analyzed.

Results
It shows that student exposed to sufficient supervision to become competent doctor (2.65) and chance to perform medical skill (2.74). We identified 3 most available skills as follows: intramuscular injection (3.32), pregnancy examination (3.11), and neurological reflex (3.11); and 3 most unavailable skills as follows: percutaneus cystostomi (1.00), circumcision (1.32), and resuscitation for newborn (1.74). Common problem hampering their chance is other program that also requires same skill, such as residency training.

Conclusion
Medical school has to ensure that learning process during clerkship period as well as planned. The availability of cases and performing skills are one of key points to master the skills. Some best rated skill must be structured to be exposed to all of student. The unavailability should be solved, by efforts such as finding new places and new activities during clerkship period.

ABSTRACT NUMBER: PO 32
Medical students' personality toward sixteen personality measurements

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Suranaree University of Technology, Suranaree, Thailand

Background
Medical curriculum of Suranaree University of Technology is the new medical school of Thailand, since 2005. Medical students are selected from 4 northeastern region emphasized Nakhon Ratchasima, Surin, Burirum, and Chaiyaphum provinces. The medical students' personality is an important for our selection and medical student development. In addition, medical personality is useful for the student affair to prepare and select the activities for self development. The sixteen personalities questionnaires are comprehensive measure of normal range of personality found to be effective.

Objective
The cross-sectional descriptive study to determine the medical students' personality in Suranaree University of Technology during 2008 to 2009 using the 16 personality factor questionnaires.

Methods
First year medical students from Suranaree University of Technology participated in this study. All participants were accepted for the consent form and completed standardized questionnaire for general information and personality type. Personality was determined by a standard personality test, the 16 Personality Factor Questionnaire (16PF) with cover 5 aspects for good medical professionalism such as ego strength/self control, responsibly, stress management, aggressive tendency/hostility, neurotic conflict management.

Results
48 medical students were included. The majority sex was female but this characteristic was no different in the statistical significant. The personality profiles shown medical students generally had more aggressive tendency/ hostility and stress management, responsibly, neurotic conflict management, ego strength/self control, were 6.5, 6.4, 5.9, 4.8, 4.6 respectively.

Conclusion
This finding presents the personalities of medical student that conflict management and ego strength/self control were considered. Longitudinal study is an influence of personality changed therefore the academic performance needs to be performed with develop program in the risk problem.

ABSTRACT NUMBER: PO 33
Life skills needs assessment in female high school students in Jahrom from the viewpoints of students, parents and teachers (2009-10)

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Background
To have a successful life, functional life skills are essential. However, in educational systems, there is not enough time for the realization of all the needs. One of the most fundamental goals of needs assessment activities is to identify needs and goals and their importance for practical applications. The main purpose of this study was to determine the priorities of life skills for high school girls in the third grade, to design more desirable educational programs for them.

Methods
In a descriptive study on the third grade students, teachers, advisors and parents, 200 subjects were selected through cluster sampling. The research instrument included three valid and reliable questionnaires in which there were 10 questions on the priorities of life skills.

Results
Overall, life skill priorities from the viewpoint of all the subjects include self-awareness, decision making, effective communication, creative thinking, empathy, interpersonal relationship, coping with stress, problem solving, critical thinking, and coping with emotions. Of the 120 high school female students 7.56%, had not undergone any education on life skills.

Conclusion
The priorities of life skills from the viewpoint of the three groups of third grade students, parents and teachers were different. More than half of the students (7.56%) had no education on the skills. Self- awareness, effective communication with others and decision making were identified as the first three priorities.

Keywords
Life Skills, Need Assessment, Priority Selection, High School Student

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ABSTRACT NUMBER: PO 34

Role of self efficacy and self concept beliefs in motivation and academic success among paramedical and health students

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Background
The purpose of this article is to examine the contribution made by the self-efficacy component and Self-concept in Motivation for progress and academic success of students of Paramedical Sciences and Health schools in Mashhad University of Medical Sciences

Methods
A total of 372 students who composed the quota random fields were selected. The participants completed the academic Self-efficacy Questionnaire, Rogers Self-concept Scale, Hermans Motivation Questionnaire and demographic questionnaire.

Results
In this study, self-efficacy is shown to be a very strong predictor of academic achievement. Increased self-efficacy is accompanied by enhanced intrinsic motivation, the ability to sustain levels of motivation and achievement-oriented behaviors, persistence in the face of difficulties, and Self-Concept Beliefs. Self-concept is a broader term, referring to one's sense of self. A Pearson correlation was calculated examining the relationship between academic Self-efficacy and Motivation for progress and academic success. Results support the hypothesized role of self-efficacy in Motivation for progress and academic success.

Conclusion
Self-efficacy beliefs have been found to be sensitive to subtle changes in students' performance context, to interact with self-regulated learning processes, and to mediate students' academic achievement. Gender and prior experience influenced self-concept, through the meditational role of self-efficacy. These findings demonstrate that students' confidence in their capabilities influence their motivation as well as various outcomes in school. These methods diverge from many of the current, traditional methods for changing practices. Recommendations for incorporating the enhancement of self-efficacy into academic programs are made in light of the most findings. The findings from this study also suggest methods for Academic implications and strategies that may help guide future research.

ABSTRACT NUMBER: PO 35

Understanding, perception and self-use of Complementary and Alternative Medicine (CAM) among Malaysian nursing students

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International Medical University, Kuala Lumpur, Malaysia

Background
A high self-use of CAM by the healthcare students throughout the world has been reported, however the study on CAM among Malaysian nursing students is limited. With the increased usage of CAM worldwide comes the demand for its integration into health professional education. The objective of this study was to assess the understanding, perception and self-use of CAM among nursing students.

Methods
Data on the understanding, perception and self-use of CAM among nursing students from one public and one private university was collected using a validated self-administered questionnaire. A total of 186 nursing students participated in this study through simple random technique where randomization was carried out using students' enrolment numbers. Descriptive and inferential statistics were used for data analysis with p value of 0.05 as level of significance.

Results
Majority of the students were female (73.3%) and Malay (41.7%) with a mean age of 22.26.Nursing students agreed that lack of scientific evidence (74.8%) as the main barriers to the use of CAM and considered CAM practitioners (50.8%) as the main source of information about CAM. Students in different professional years have significantly different level of self-use of CAM. About 47% of them reported to use complementary medicine such as prayer healing, music therapy and massage followed by homeopathy (38.7%). Most of them (45%) believed that complementary therapies include ideas and methods from which conventional medicine could benefit where significant difference was found between year 1 and 2 and year 1 and 4 students (p=0.001). More than half of them support the integration of CAM into the curriculum and perceived CAM as effective.

Conclusion
The study clearly indicates that CAM therapies are being used extensively by nursing students in Malaysia. The curriculum involving CAM education has to be further examined and modified to meet the professional needs of our future health professionals.

ABSTRACT NUMBER: PO 36

Measuring the motivation of nursing and midwifery students towards selecting their field of study

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Background
Motivation is considered as an important factor in students' learning, skills achievement and finally educational achievement. Regarding to this fact and importance of performance in graduated nursing and midwifery students, this study aimed identifying the motivation of nursing and midwifery students toward their field of study selection.

Methods
This is a descriptive-analytic study, 200 nursing and midwifery students of Mashhad University of medical sciences were selected by classified-cluster sampling method at random. The tools for data collection include: demographic data form and Motivation Questionnaire consist of 10 motivating factors classified in two parts: intrinsic and extrinsic motivating factors. These data were analyzed using descriptive and inferential statistics.

Results
Based on findings, the total mean scores of motivating factors were 33.46±6.43 that was in the average level.

Intrinsic motivating factors score was higher than extrinsic. T-test showed a significant difference between nursing and midwifery students in some motivating factors such as "social reputation and respect of career" (P<0.001), "family advisability" (P=0.034), "having more welfare benefits" (P=0.037) and "more employment possibility" (p<0.001). The first 3 factors scores were higher in midwifery students. ANOVA test showed, there was significant difference between students' motivating factors rate with father's educational level (p=0.006) and mother's job (p=0.004). According to Pearson correlation test, the higher semester (P=0.009) and age (P=0.008), the less intrinsic motivation.

Conclusion
According to the results, the motivation of students was in average level and intrinsic motivation gradually decreased during period of the course. So, it is possible to improve motivation through organizing educational programs for professional identity development and consequently better opportunity for students' performance.

ABSTRACT NUMBER: PO 37
Attitude of non-smokers towards smokers among students in a medical school"

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[2]USAIM, Mahe, Seychelles

Background
The study of knowledge, attitude and behaviour of medical students towards tobacco smoking is useful since doctors play an important role as a first line of advice to patients with smoking related problems. Our objective was to determine the prevalence and attitude of non-smokers towards smokers among medical students.

Methods
A questionnaire based survey was carried out among all medical students of a University in the year 2006. A validated questionnaire developed as part of the Global Youth Tobacco Survey (GYTS) of the Centre for Disease Control, USA was used. Data was analysed using SPSS version 16.1.

Results
Twenty-one percent of the students were smokers. 66.7% were male while 33.3% were female. 54.3% of non smokers felt less attracted to smokers. They felt that smokers either 'lacked confidence', were 'losers' or 'stupid'. None of them felt that male smokers were 'successful', 'intelligent' or 'macho'. 45.7% of the non-smokers felt that female smokers were 'stupid'. However, 6% of them felt female smokers were either 'successful' or 'sophisticated'.

37.1% felt that male smokers would have more friends, and 17.1 % felt they would have fewer friends. While 11.4% non-smokers felt that female smokers would have more friends and 37% felt they would actually have fewer friends.

Conclusions
The data from our study clearly shows there are gender differences in perception of smokers. Since the students are our future doctors, their perceptions regarding smoking and tobacco addiction may have a significant impact on interactions with patients.

ABSTRACT NUMBER: PO 38
Stressors and coping strategies among Baccalaureate nursing students at Shifa College of Nursing Islamabad, Pakistan

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Shifa College of Nursing, Islamabad, Pakistan.

Background
Nursing education is stressful and students go through various pressures throughout their study period. It has been reported that nursing students may encounter different stressors relating to their academia. These stressors are believed to affect students' health and academic performance.

Objective
To determine the stressors and coping strategies in nursing students studying at Shifa college of Nursing, Islamabad, Pakistan.

Methods
Analytical cross-sectional study was carried out and data was collected from 78 nursing students of all years of the BSc. Nursing programme by using student's stress and coping inventory of Lazarus & Folkman (1984).

Results
The score of stress level in nursing theory = 2.37, clinical experience = 2.35, College environment= 2.39 and social / personal environment= 2.51. The p-value of one way ANOVA amongst classes was significant for clinical experience (P = 0.000), college environment (P = 0.00) and social / personal environment (P = 0.000). Most common coping strategies used by the students were: discuss feeling with friends or class mates (Mean= 2.75), did what is expected of me (Mean= 2.84), self analysis to understand the situation better (Mean= 2.38), accept the situation (Mean= 3.1) and become involved in other activities (Mean2.75, SD= 0.99).

Conclusion
Significant stressors reported by the students are modifiable and can be reduced by changing assessment criteria, develop effective feedback system, strengthening the role of faculty advisors, training of faculties as counselors, and providing recreational opportunities to students.

Shortlisted Oral Presentation

International Medical University
Bukit Jalil, Kuala Lumpur

Code No	Title
SLO 1	**Assessment in PBL tutorials: Is it an assessment of language skill?** Mahinda Kommalage *University of Ruhuna, Galle, Sri Lanka*
SLO 2	**Effect of distractor non functionality on the degree of availability of psychometrically acceptable multiple choice questions** Kishore K Deepak, Abdullah Al Rubaish, Mona Al Sheikh, Khalid Al Umran, Smitha Mathew and BV Adkoli *All India Institute of Medical Sciences, New Delhi India and University of Dammam, Saudi Arabia*
SLO 3	**Current status of student assessment during clinical training in Japanese medical schools: results of a national survey** Seiichi Ishii, Yoshifumi Abe, Michio Akagi, Kazumasa Uemura, Shigeru Ueno, Yoshiyasu Terashima, Hozuka Akita and Michito Akagi *Japan Society for Medical Education, Japan*
SLO 4	**Medical education registrars: A workforce model for building medical education capacity** Karen Roberts *Queensland Health, Queensland Medical Education & Training, Queensland, Australia*
SLO 5	**How well are your medical students doing? An analysis of enneatypes by stress points** Yera Hur and Keum-ho Lee *Queensland Health, Queensland Medical Education & Training, Queensland, Australia*
SLO 6	**Scenario based teaching – "Teaching with a role play" Can that be more effective than lectures for training management of clinical cases and emergencies in medicine** Pinto MVG, Amarasinghe U, Thenuwara GB, Weerabahu WMSK and Dunukearachchi SU *University of Peradeniya, Sri Lanka*
SLO 7	**MOMED – Mobile learning for clinical medical students** Bethany Davies, Jethin Rafique, Tim Vincent, Jil Fairclough, Lateefah Adesanya, Mark Packer, Richard Vincent, Inam Haq *Brighton and Sussex Medical School, East Sussex, United Kingdom*
SLO 8	**Perception regarding the quality of group interaction during brain storming session of problem based learning at Melaka Manipal Medical College, India** Vasudha Devi, Vinod Pallath, Benny Lim Chia Wue, Cheng Kok Mun, Jacinta Agnes Adward and Law De Zhi *Melaka Manipal Medical College (MMMC), Manipal University, India*
SL0 9	**Do video triggers in PBL cause cognitive overload?** Lap Ki Chan, Jingyan Lu, Mary SM Ip and Amber LM Yip1 *The University of Hong Kong, Hong Kong*
SLO 10	**Strugglers and achievers among medical students in Sri Lanka – A comparative study** Priyanga Ranasinghe, Solith Senanayake, Anjalee de Silva and Saman B. Gunatilake *University of Sri Jayewardenepura, Sri Lanka*

Code No	Title
SLO 11	**Perceptions and practices of self-directed learning in small group sessions for undergraduate medical students** Vandana Bahl, Meenakshi Akhilesh, Ramesh Chandra Jutti, Wai Phyo Win and Juriah Binti Abdullah *International Medical University, Kuala Lumpur, Malaysia*
SLO 12	**Acute emergency teaching for final year medical students using advanced patient simulator: A preliminary evaluation** Wai Sun Choo, Toh Peng Yeoh, Tow Shung Tan, Kean Chye Tan, Li Ching Lee, Samuel Eashaw, Amir Khir, Richard Li-Cher Loh *Penang Medical College, Penang, Malaysia*
SLO 13	**The performance of IPL/MPL (interprofessional learning/multipleprofessional learning) in PBL (problem based learning) in Medical education of Peking University** Wang Yuedan, Guo Qi & Xu Lan *Peking University, China*
SLO 14	**Assessment of non-functioning distractors in multiple-choice questions** Mohammed Saqr, Mohammed Nour Eldin Saleh, Abdullah AlGhasham *Qassim University College of Medicine, Kingdom of Saudi Arabia*
SLO 15	**A simulation-based curriculum for medical students transitioning to the ward environment improves performance of clinical skills** Nicole Shilkofski, Julianna Jung, David Newman-Toker, Elizabeth Hunt, David Nichols and Charles Wiener *Johns Hopkins University School of Medicine, Baltimore, Maryland, United States of America*
SLO 16	**Attitude of first year medical students towards inter- professional teamwork** Watutantrige Ranjit De Alwis *International Medical University, Kuala Lumpur, Malaysia*

Shortlisted Oral Presentation

ABSTRACT NUMBER: SLO 1

Assessment in PBL tutorials: Is it an assessment of language skill?

Mahinda Kommalage
University of Ruhuna, Galle, Sri Lanka

Background
Problem based learning (PBL) is a well-established teaching-learning method which allows students to learn fundamental principles of the subject in the context of solving problems. Active learning, collaborative learning, problem solving skill, communication skills are expected to improve with PBL. Students' performance in PBL tutorials can be influenced by social, cultural and language factors. In Ruhuna medical school in Sri Lanka, medium of teaching is English although almost all students' first language is not English. Therefore fluency in English may affect the performance of students in PBL tutorials. Aim of this study is to investigate influence of English fluency, subject knowledge and analyzing ability on performance in PBL tutorials.

Methods
Each student's performance during the PBL tutorials on Physiology was assessed by the tutor. This assessment was consisted of 12 components under clinical reasoning process, knowledge acquisition, cooperative learning, self-directed learning and communication skills. PBL tutorial assessment marks were compared with marks of English language assessment, MCQ, OSPE components of Physiology assessment conducted.

Results
Correlation was found between PBL marks and English language marks (Pearson correlation 0.288). PBL marks were also correlated with MCQ and OSPE components of subject assessment marks (Pearson correlation 0.291 and 0.250 respectively). Multiple regression analysis showed higher beta value for English knowledge (0.187) than MCQ (0.162), OSPE (0.115) suggesting higher influence of English marks than that of MCQ and OSPE.

Conclusion
Students' performance in PBL tutorials are influenced by English fluency. The influence of English fluency is even higher than that of subject knowledge and analyzing ability which are measured by MCQ and OSPE respectively.

ABSTRACT NUMBER : SLO 2

Effect of distracter non-functionality on the degree of availability of psychometrically acceptable multiple choice questions

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Background
An ideal A-type multiple-choice question (MCQ) requires fully functional distracters. However, psychometric analysis reveals varying degree of non-functionality among the distracters. We examined the impact of distracter non-functionality on the degree of availability of psychometrically acceptable MCQs.

Methods
Item statistics of 1115 A-type MCQs with five options (used in undergraduate assessments) was used to categorize MCQs in five groups depending on the presence of non-functioning distracters (NFD). The effect of varying degree of non-functionality (NFD of 0 to 4) was analyzed on psychometrics. We calculated the percentage of availability of items with acceptable psychometrics after applying the conventional psychometric criteria on the pool of 1115 items.

Result
The NFDs significantly increased difficulty index and lowered discrimination index. However, the point biserial correlation (item-total correlation) revealed that the items with four functional options were psychometrically as effective as items with five functional options. The items with less number of functioning options had significantly lowered degree of psychometric adequacy. A total of 57.77 % items had acceptable point biserial correlation (286 out of 495 items with distracter dysfunction). Even with three non-functional distracters (this leave virtually two option item) there were 41.5 % items, which had acceptable level of discrimination using item-total correlation criteria of ≥0.2.

Conclusion
The functionality of distracters affects the quality of items but in a limited manner. Our study provides normative data on the degree of availability of psychometrically acceptable MCQs after exclusion of items with non-functioning distracters. The study also re-affirms that the point biserial correlation is better instrument for retaining the quality items than other indices of psychometrics.

ABSTRAcT NUMBER: SLO 3

Current status of student assessment during clinical training in Japanese medical schools: Results from a national survey

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Background
Insufficient data have been available about the status of student assessment during clinical training among Japanese medical schools.

Methods
To analyze the current status of student assessment during undergraduate clinical training in Japan, a national survey was conducted by the Clinical Competence Committee, Japan Society for Medical Education during February and March 2010. Survey questions were sent to the Deans of medical schools and answered by the appointed persons of each medical school.

Results
Answers were obtained from all the 80 Japanese medical schools. Japanese medical schools allocated time for clinical training primarily during the 5th-year with a mean of 37.8 weeks, while only 6.9 weeks were allocated to clinical training during the 6th-year. Most of the remaining time of 6th-year was spent on lectures and written tests to prepare for the national licensure examination. Total weeks for clinical training ranged from 34 to 66 with a mean of 46.1. To assess students' clinical competence, observational assessment, objective-structured clinical examinations, written case reports, oral examinations, and portfolios were used by 45, 43, 18, 16 and 8 medical schools, respectively. Twenty four medical schools set time for formative assessment to individual students in all or most of clinical courses, 10 medical schools did in part of clinical courses, but 46 medical schools had no clear rules for feedback to students.

Conclusion
The length of clinical training in the curriculum of Japanese medical schools is relatively short compared to that of medical schools of other countries. In addition, assessment of students during clinical training does not seem to be sufficient. To promote students' clinical competence as well as to ensure the quality of clinical training during undergraduate medical education, more weeks should be allocated to clinical training and student assessment should be implemented more properly in Japanese medical schools.

ABSTRACT NUMBER: SLO 4
Medical education registrars: A workforce model for building medical education capacity

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Background
Queensland Health views medical education as a continuum of teaching and learning, with the Medical Education Registrar (Registrar) forms an integral but non-specialist dimension in that learning framework. In 2009 and 2010 six Registrars and their supervisors participated in professional development activities co-ordinated by Queensland Medical Education and Training (QMET).

Objectives
The objectives of the program are to enable registrars to undertake formal studies in medical education and develop an understanding of the role and functions of clinical supervisors and medical education leaders. The Registrar is required to develop a project within their area of interest and clinical practice, in collaboration with a project supervisor, which has particular relevance and benefit to their discipline. The project is a professional development opportunity in its own right and integrates into the other career development activities of the vocational training for the Registrar. Funding support to assist with the study costs of the Graduate Certificate level educational requirement of the position is provided. The educational studies immerse the Registrars in the wider and multidisciplinary educational context and the discussions that ensue from such an experience. Additional support for the registrars and supervisors is provided by QMET through bi-monthly 3 hour seminars consisting of Registrar project reviews using a 'step-back consultation' method, together with some structured sessions from invited facilitators.

Evaluation
Evaluation of the program for the first two years demonstrates*** educational development for MERs and supervisors*** and project outcomes that have in some instances received on-going funding for further development, evaluation and implementation across Queensland, and **** lasting cultural change beyond the 12 month period of the MER appointment " ... emergency department staff questioning what the MER would be doing for the 12 months at the beginning of the year then complaining that there was no MER for the next year..."

Queensland Health has centrally funded four Medical Education Registrar (Registrar) positions on a 12 month training program since 2008. Queensland Medical Education and Training (QMET) assumed management of the MER program in 2009. The Registrars are employed by the Health Service Districts where they pursue an educational project, in collaboration with a project supervisor, within their area of interest and clinical practice. Queensland Health views the whole of medical education as a continuum of teaching and learning, with MERs forming an integral but non-specialist dimension in that learning framework.

Benefits
Funding is available on top of the salary funding to support the study costs of the Graduate Certificate level educational requirement of the position. Additional support for the MERs and their supervisors is provided by Queensland Medical Education and Training (QMET) through bi-monthly 3 hour seminars consisting of MER project reviews using a 'step-back consultation' method, together with some structured sessions from invited facilitators.

Evaluation: (Cultural effect)
Evaluation of the program for the first two years demonstrates*** educational development for MERs and supervisors*** and project outcomes that have in some instances received on-going funding for further development, evaluation and implementation across Queensland, and**** lasting cultural change beyond the 12 month period of the MER appointment " ... emergency department staff questioning what the MER would be doing for the 12 months at the beginning of the year then complaining that there was no MER for the next year..."

Sustainability:
VB - ANZEME
Title: Building a community of Medical Educators: Medical Education Registrars
This really what should be submitted!

ABSTRACT NUMBER: SLO 5
How well are your medical students doing? - An analysis of enneatypes by stress points

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Background
The enneagram, a personality inventory, gives valuable insight into many aspects of personality, including understanding one's self and how we respond under stress. Despite this importance, the enneagram is rarely studied. This study examined two overarching topics: 1) how are medical students' personality types reflected in an enneagram? And 2) are there any differences between subtypes of stress points (integration, disintegration, mediocre)?

Methods
The subjects were 354 medical students in three Korean medical schools. We used the Enneagram Personality Types inventory (Korean version), which assigns nine personality types. These enneatypes can be divided into four subtypes: (1) Centers of intelligence: head (types 1,8,9), heart (2,3,4), and body (5,6,7); (2) hornevian triads: assertive (1,3,8), withdrawn (2,6,7), and compliant (4,5,9); (3) self-consciousness: inner order (2,5,8), outer order (1,4,7), and outer-inner harmony (3,6,9); and (4) harmonic group: positive outlook (2,7,9), reactive (4,6,8), and competency (1,3,5). Enneatypes and stress points were analyzed statistically by frequency and percentage of enneatypes, chi-square test, and ANOVA.

Results
1) Distribution of enneatypes - Type 9 ("the mediator") was the most frequent class (N=114, 32%), and type 3 ("the performer") applied to the fewest students (N=13, 4%). Types 1, 3, 4, and 9 had more disintegrated students than other types ($\chi 2=47.84$, p=.000). Type 9 subjects had the highest stress point (M=-3.56). Types 2, 5, 6, and 7 were more integrated than type 9 (F=8.74, p=.000). 2) Subtype analysis - (1) Body-centered type: More students were disintegrated than integrated or mediocre ($\chi 2=25.75$, p=.000). Head-centered subjects were more integrated than others. Heart-centered subjects were distributed equally. (2) Behavior patterns: Aggressive and passive types showed more disintegration than integration ($\chi 2=21.17$, p=.000). (3) Self-consciousness: Inner order types were the only types that showed integration ($\chi 2=16.50$, p=.002). (4) Harmonic group: Positive outlook types contained the most disintegrated students ($\chi 2=15.26$, p=.004).

Conclusion
Type 9 is the most frequent enneatype for medical students who show high disintegration (stress point), and the majority of triad types was under stress. Because there are various methods to classify these types, our findings suggest that a program should be developed for students to know their ego-identity plainly and overcome their disintegration, based on their enneatypes. Such a program will help students improve their ways of thinking or their behavior and become more secure.

ABSTRACT NUMBER: SLO 6

Scenario based teaching – "Teaching with a role play" Can that be more effective than lectures for training management of clinical cases and emergencies in medicine

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Background
Experiencing something or viewing something close to reality and get the knowledge with confidence is more effective. Also in case of clinical teaching in medicine, to teach the management of clinical emergencies, it is much more difficult as well as very important to make the material interesting and relevant to the students. This has a direct relationship to reduce the gap between the implementation of clinical skill to real clinical set-up. There should be a way to integrate the knowledge and skill in the classroom in as understandable manner. This can be done as a traditional lecture, simulated models, videos, and other virtual reality technologies used as tools for teaching. This study was designed to detect the efficacy of the understanding of the knowledge in situations where students were exposed to view a role -play of a management of emergency scenario to arose the interest which followed by the explanation, compared to a very well explained lecture with demonstration.

Methods
The study was carried out as a prospective randomized study. 200 consented subjects were randomly allocated into 2 groups. Group A were received a very well explained lecture with demonstration regarding the management of multi trauma in the emergency setup. Group B was exposed to view a playacting of a management of multitrauma as an emergency by an experienced team, which was followed by the explanation. Questioner was given to both groups and assessment was carried out by a lecturer who was blinded to the technique used. The assessments were repeated after 6 months for both groups. The results of group A and B were compared.

Results
Educational levels were comparable in both groups. Immediate assessment of both groups was not significantly different. The six months assessment In Group B was significantly showed better performance than the Group A.

Conclusion
These findings indicate that scenario based teaching, exposing the students to experience the management as an act or role-play is a better way to teach than the lecture demonstration.

ABSTRACT NUMBER: SLO 7

MOMED – Mobile learning for clinical medical students

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Background
Handheld computer (PDA) use is increasing in medicine and has been shown to enhance undergraduate and postgraduate learning. The use of mobile technologies has led to an increase in learning at the point of need, which can help to embed knowledge, improve clinical care and reduce the risk of treatment errors. We aimed to achieve a better understanding of the process by which the PDA facilitates change in knowledge and behaviour using qualitative and quantitative data.

Methods
385 clinical medical students were provided with a PDA loaded with medical resources for the duration of their

clinical studies. Outcomes were assessed by a triangulation approach, using qualitative study of focus groups and quantitative analysis of surveys and usage tracking data.

Results
Qualitative analysis found three major themes - access to knowledge, consolidation of knowledge and the need for change. Medical textbooks and drug formularies were the most popular resources. The main barriers were the problems associated with carrying a second device and a preference for paper based resources. Owning a PDA increased learning opportunities, especially through repetition and ready access to knowledge. Students were keen for the medical school to continue supporting mobile learning, with the preferred future option to involve smartphones.

Conclusions
For most students the PDA is a supplement to their other educational tools rather than a replacement. Change in a number of aspects was required to optimise the learning potential that the PDA offers. Mobile learning forms an important aid to student learning which will be carried into their working career. It is a valuable resource not only for medical students but also for other healthcare professional trainees who work away from the university base.

ABSTRACT NUMBER : SLO 8
Perceptions regarding the quality of group interaction during brain-storming session of problem based learning (PBL) at Melaka Manipal Medical College (MMMC), India

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Background
In PBL the interaction in tutorial group plays a central role in stimulating student learning. However, quality of group interaction need not be always in a desired level which will later affect group success.

Objective
To compare perceptions of students and faculty on quality of group interaction during PBL.

Methods
To obtain the perceptions of students and faculty (n=32), questionnaire designed by Visschers-Pleijers et al 2005 was used after obtaining authors' consent. Students from Ist (n= 129) and 2nd year (n=106) of MBBS were asked to respond in the questionnaire during one of the PBL brain-storming sessions. To explore reasons for adequate and inadequate group interactions focus group (n=10) discussions were conducted. Data was analyzed using SPSS version 16. p value of < 0.05 was considered significant.

Results
There was no difference in perceptions regarding group interaction between 1st year and 2nd year students. But there was significant difference between students and faculty perceptions regarding posing critical questions support for argument and handling conflicts. Majority of faculty did not agree that student asked critical questions. Moreover there was a significant difference between student groups and faculty in handling conflict subscale. Main factors that drove interaction were the prior knowledge, assessment and motivation and the main hindering factor was case scenarios which were not designed based on students' prior knowledge.

Conclusion
Students' understanding/ expectations regarding PBL interaction does not change much during their course. Faculty expectations regarding PBL group interaction is different from the students' understanding of PBL interaction. At MMMC, group interaction happens by asking exploratory questions and by cumulative reasoning. This study helps us to bridge the gap between the faculty expectations and students' performance by orienting them regarding an ideal PBL interaction. Designing PBL cases based on students' prior knowledge would bring out productive group discussion.

ABSTRACT NUMBER : SLO 9
Do video triggers in PBL cause cognitive overload?

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Background
In problem-based learning (PBL), video triggers are more realistic representations of the clinical situations that students are being trained to deal with, when compared to paper triggers. But for junior medical students without much clinical experience, the video triggers could potentially cause cognitive overload: the video of history taking and physical examination may present so much information to the students that they get distracted from the critical thinking process in clinical problem solving.

Methods
A PBL group, consisting of a facilitator and 11 students in the second-year medical programme at Li Ka Shing Faculty of Medicine at The University of Hong Kong, was recruited for the study. Four consecutive PBL sessions of two hours each were video-taped, covering one video-triggered and one paper-triggered case. The sessions were video-taped and then transcribed. Discourse analysis was performed using the qualitative data analysis software Nvivo 8, by adopting the coding schema of Kamin and his colleagues (Kamin et al., 2003) that has been developed for the analysis of critical thinking in PBL.

Results
All five stages of critical thinking were observed in both the video-triggered and the paper-triggered PBL (problem identification, problem description, problem exploration, applicability and integration). Although students spent more of their discussion on problem identification in the video-triggered case than in the paper-triggered case, they spent less on problem description. The combined percentage of transcript units in problem identification and description was lower in the video-triggered case than in the paper-triggered case, meaning that in the video-triggered case students actually spent more of their discussion on the higher stages of critical thinking.

Conclusion
There is no evidence to suggest that video triggers will cause cognitive overload in PBL, even for junior medical students with little clinical experience.

ABSTRACT NUMBER : SLO 10

"Strugglers" and "Achievers" among medical students in Sri Lanka – A comparative study

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Background
We aimed to identify socio-demographic and non-cognitive characteristics determining success or failure of Sri Lankan medical undergraduates.

Methods
A study was conducted among recently graduated medical students. Students were stratified into two equal groups of 25; 'Achievers' (honors at the final MBBS) and 'Strugglers' (repeated one or more subjects at the same examination). A revised version of the Non-cognitive Questionnaire (NQ) with additional socio-demographic data was the study instrument. Academic performance indicator was the students' performance at the final MBBS examinations. Data were analysed using SPSSv14.

Results
Male: Female ratio was 1:1.1 and the mean age was 26.5±1.1 years. 'Achievers' were significantly younger than 'Strugglers' ($p<0.05$). Significant proportion of 'Achievers' were selected to university from Colombo district. Majority (64%) of 'Achievers' entered medical school from their first attempt at GCE A/L examination, while 84% of the 'Strugglers' entered in the 2nd/3rd attempts. A significant majority of 'Achievers' have obtained 'Distinctions' at the GCE A/L English. The mean number (±SD) of patient-oriented case discussions with seniors prior to final MBBS exam was significantly ($p<0.001$) higher for 'Achievers'. Sixty eight percent of 'Achievers' had a personal computer, in comparison to only 16.0% of 'Strugglers' ($p<0.001$). In addition 60.0% of 'Achievers' had full time access to internet, compared to 12.0% of 'Strugglers' ($p<0.001$). The 'Achievers' demonstrated a significantly higher mean score for the following domains of NQ; Positive self-concept and confidence, realistic self-appraisal, leadership, preference of long range goals and academic familiarity.

Conclusion
Being from Colombo district, entering university from GCE A/L first attempt, a 'distinction' for GCE A/L English, higher number of patient-oriented case discussions, positive self-concept and confidence, leadership qualities, preference of long range goals and academic familiarity significantly increased the odds of obtaining a honors degree. A combined system incorporating both past academic performance and non-cognitive characteristics in student selection to medical schools might help improve the selection process.

ABSTRACT NUMBER : SLO 11

Perceptions and practices of self-directed learning in small group sessions for undergraduate medical students

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Background
Lifelong learning is an essential competence for doctors, and therefore medical students should ideally become self-directed learners at some point in their undergraduate medical course. This study aimed to explore the perceptions towards self-directed learning (SDL) among undergraduate medical students for learning in small group sessions. The key question was to determine the attitudes indicative of SDL midway during the curriculum delivery.

Methods
One hundred twenty out of 236 year 3 undergraduate medical students completed a 28 item questionnaire relating to their learning needs, practices and strategies for clinical skills learning in small group sessions. Students used a 6 point Likert scale to indicate whether they prioritised their study needs, prepared before the session, and evaluated their own efforts, assessed outcomes and further learning needs. Lastly, they rated their own competence in the small group session.

Results
The response rate to the questionnaire was 50.8%. 43.2% of students were able to recognise and prioritise their own learning needs, while 31.7% expressed inability to define this parameter and 51.6% demonstrated reluctance for prior preparation for small group sessions. After the session, 43.3% of students were able to positively evaluate their learning efforts and 51.7% agreed that they had achieved their learning objectives. While 44.5% students were able to make a confident assessment of their competence.

Conclusion
The use of the questionnaire was found to be invaluable in the assessment of student perceptions towards SDL. A reluctance to prior preparation for impending small group sessions was noted. Students demonstrated strong ability to recognise and prioritise their learning needs. Greater awareness of the process of learning can pave the path for honing SDL skills.

Key words
Undergraduate medical students, self-directed learning, small group sessions, perceptions

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ABSTRACT NUMBER : SLO 12

Acute emergency teaching for final year medical students using advanced patient simulator: A preliminary evaluation

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Background
Simulation-based teaching is increasingly used in medical education. We introduced simulation sessions utilizing the medium-fidelity whole-body manikin Laerdal SimMan® to complement the emergency medicine module to final year medical students in 2010.

Methods
110 students in groups of 10 each had a 2 hour session with SimMan®. Students in group of 3 to 4 took turns working through a simulated scenario while the rest observed through close circuit television. Scenarios were based on common acute medical emergencies. Feedback was provided through debriefing session with faculty facilitators. The effectiveness and educational benefit as perceived by students were studied through perception

IMU-RHIME Innovations

International Medical University
Bukit Jalil, Kuala Lumpur

IMU-RHIME Innovations	
No	**Title**
IRI 1	**Group seminar by the students – An interactive strategy for better acquisition of knowledge** *Sarmishtha Ghosh, MAHSA University College, Kuala Lumpur, Malaysia*
IRI 2	**Changing the curriculum 'under the radar'** *Mahinda Kommalage, Galle, Sri Lanka*
IRI 3	**Value-added PBL** *Hla Yee Yee, International Medical University, Kuala Lumpur, Malaysia*
IRI 4	**Design and testing of Observational Practice Educational Networking (OPEN) tool to improve retention of technical clinical skills** *Adam Dubrowski, University of Toronto, Ontario, Canada*
IRI 5	**Innovative use of peer assessment to detect poor performers and dysfunctional teams** *Jennifer Perera, University of Colombo, Colombo, Sri Lanka*
IRI 6	**Tested innovation in clinical anatomy practical learning in a large cohort: Guided Collaborative Learning (GCL) and multimedia enhanced Student Peer Teaching-Demonstration (SPTD)** *Arkendu Ken and Dr Lakshimi Selvaratnam, Monash University Sunway Campus, Selangor, Malaysia*
IRI 7	**Relationship among Glasser's basic needs levels, academic marks, and creativity scores Of medical students** *Kun Hwang and Fan Huan* *Inha University School Of Medicine, Incheon, Korea*
IRI 8	**A survey on the reliability and Validity of Assessment Tools of Midwifery students at the Final Examination in Mashhad Nursing & Midwifery Faculty** *Nahid Jahani, Nahid Golmakani, Seyed Reza Mazluom, Kobra Mirzakhani, Sedighe Azhari and Afsaneh Navaiyan* *Mashhad University of Medical Sciences, Iran*
IRI 9	**Students Grand Round in Internal Medicine** *David Kandiah, University of Western Australia, Australia*
IRI 10	**Providence "sister teams" model: an innovative approach to meet the new acgme standards** *Jacqueline Moore, Khalid Zakaria and Basim Dubaybo* *Providence Hospital, Michigan, United States of America*
IRI 11	**Webinar and synchronous transnational collaborative learning: a recent innovation in medical education.** *Abdus Salam,* *UKM Medical Centre, Kuala Lumpur, Malaysia*
IRI 12	**Shadow Housemanship "Oncall" Emergency Stimulation (SHOES)** *Mafeitzeral Mamat, Suraya Ahmad, Isnul Hady Ismail, Mustafa Jerjess* *University Technology MARA (UiTM), Selangor, Malaysia*
IRI 13	**A way to improve the validity and reliability of viva voce Examination** *Saman Wimalasundera* *University of Ruhunba, Matara, Sri Lanka*
IRI 14	**Innovation in teaching and learning clinical skills in an undergraduate PBL curriculum** *Muhammad Zafar and Ali Tale Asery* *King Fahad Medical City, Riyadh, Kingdom of Saudi Arabia*
IRI 15	**Elective course for personal development – what new life-skills appeal to medical students?** *Nasrin Jahan, Hamidah Abu Bakar and Dr Yong Rafidah Abdul Rahman* *Cyberjaya University College of Medical Sciences, Selangor*

IMU-RHIME Innovations

ABSTRACT NUMBER : IRI 1
Group seminar by the students – An interactive strategy for better acquisition of knowledge

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Background
In India, most medical colleges follow a conventional curriculum with predominantly didactic mode of teaching in pre-clinical sciences. Active student involvement remains suboptimal with lack of emphasis on improvement of attitude and soft skills. Also since both medical information and technology are increasing in an exponential manner, medical students need to keep abreast of available medical information, organizing and processing them properly. The teaching of communication skills also does not have a formal introduction in the first year. Meaningful learning occurs when students are involved in the process of learning. A need was felt to develop a teaching-learning module which would not only introduce a different approach for active learning of basic science subjects but also train the students in gathering, organizing, processing and presenting information.

Methods
Five common clinical problems associated with different systems, not taught in a didactic lecture class were chosen for seminars. Each seminar was given to a group of 5 students, supervised by one faculty. Three week time was allotted for search for relevant materials from books, journals and online sources. After an initial construction of the article the group presented the seminar using PowerPoint slides and chalk-blackboard to the rest of the students and faculty of both basic and clinical sciences. Students listening to the seminar were encouraged to ask questions and interact actively. A clinician teacher was invited in every session to wind up the seminar along with expert comments. After the completion of the term the process was evaluated by a structured feedback from the students through a 25 item questionnaire using a 5-pt Likert scale. Descriptive statistics was applied to analyze the data.

Results
Student feedback showed 80% considered the method to be very useful in improving both written and oral communication skills including presentation in front of an audience and facing questions which they were not exposed to earlier. Library records showed a 70% increase in usage of the Library resources including the internet facility at the Library by the students during the time of seminars. 77% reported a self-perceived improvement in knowledge about computers and search engines for information retrieval. 60% reported that it certainly motivated them towards self-directed learning and 65% considered the process to be beneficial in improving overall confidence in them. 77% rated group seminars as an important teaching-learning component in the learning program and 57% considered it to be very good for understanding basic science and applying it to clinical in future.

Discussion
The experience suggested that student group seminars can be used as an innovative learning tool effective in improving the skills of communication, information retrieval and management and gain in knowledge in pre-clinical sciences. It has been perceived to be an accepted tool of collaborative active learning by the students in increasing overall confidence helping them to handle problem based learning sessions in later days of their clinical training.

ABSTRACT NUMBER : IRI 2
Changing the curriculum 'under the radar'

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Background
Curriculum of xxxxx Medical school is discipline based and traditional type. The teaching activities were mainly teacher centred and didactic. Medical education in the world as well as in xxx is moving towards more student centred problem solving type with holistic approach overcoming subject boundaries.

However, attempts of curriculum reform in this medical school failed twice due to resistance of faculty members. Subsequently this resistance was the main challenge in introducing reforms. Therefore we planned many 'low scale' but efficient activities. We introduced following activities within the excising administrative system with wider participation of faculty members from many departments. The activities are

1. Student-centered group classes (SCGC)
2. Short analytical essay writing activity (SAE)
3. ICT based assignments associated with lectures
4. Students'mini lectures (students' seminars) as a peer assisted learning process
5. Problem based Learning (PBL) tutorials
6. Initiated horizontal integration in preclinical subjects
7. Initiated introduction of clinical materials in the form of video to preclinical students.

We have shown that these activities promote self directed learning, collaborative learning, communication skills, new knowledge searching ability, use of ICT in learning and humanistic approach toward patients. These activities were shown greater suitability. Some of these activities such as horizontal integration, clinical materials introduction in the form of video and PBL tutorials were spread to many departments/disciplines.

By introducing above activities without disturbing the established traditional system in this medical school, we have tactfully overcome faculty staff's resistance to change.

ABSTRACT NUMBER: IRI 3
Value- added PBL

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Background
The art of medicine and clinical acumen are largely endangered in an era of reliance on sophisticated diagnostic tools. Medical curricula have not adequately stressed that clinical diagnoses is possible with reasonable accuracy 75% of the time solely through good history-taking1 without subjecting patients through unnecessary tests, which also puts an enormous financial burden on healthcare budgets2. Medical curricula should incorporate training students in selecting appropriate tests.. This study was to assess if PBL - with its positive outcomes3, 4and potential for clinical reasoning - could be an effective forum for such training.

This study was done to (1) demonstrate that good history-taking is crucial in reaching diagnoses (2) encourage students to select appropriate questions in history-taking (3) make students realize the financial burden of investigations and (4)encourage "doctor"-"patient" rapport .

Methods
Year 3 students were given a two-step clinical case PBL trigger (Guillain-Barre' Syndrome)in the first week of the Nervous System module. In the first PBL session, students were assigned roles of "patient" or "Laboratory & Imaging". The history was given to the "Patient "and list of investigations, cost and results to the "laboratory" . The Facilitator took note of (a) the number of questions asked in history (in order to discourage thoughtless firing of questions at the patient) (b) the number of investigations "ordered" and the cost of the investigations (c) the number of learning issues arrived at. The findings of neurological examination were given in Part (2) of the trigger. The second PBL session was done in the usual format. A 7-point questionnaire (using a 4-point Likert scale) was distributed to students for anonymous feedback.

Results
The response rate was 180/217 (82.9%). The number of questions asked in history-taking was 17.7 + 17.0; investigations done were 3.5+1.4, costing 1479 + 1204.6; 8.0+2.8 learning objectives were identified.

No.	Statement	1	2	3	4
1.	It helps me improve my history-taking skills	12	24	59	19
2.	It demonstrates that history-taking gives most of the information about the disease	8	23	59	22
3.	It helps in clinical reasoning	5	10	77	36
4.	It highlights the burden on the patient (cost of investigations)	4	15	61	29
5.	It is more realistic	9	31	56	25
6.	It can be done without a facilitator	24	62	19	4
7.	It helps to build the rapport between doctor and patient	7	33	64	5

1= strongly disagree; 2=disagree; 3= agree;
4= strongly agree

There were 24 positive responses, 14 suggestions and 16 negative responses, mainly about perceiving as time-consuming. The students enjoyed this version of PBL and found it more interesting. A few suggested that it should be introduced earlier.

Discussion
This version has utilized PBL in a realistic setting of the doctor and patient at the center of learning and highlighted the financial burden on the patient. There is good student buy-in and it was not surprising that question number 6 scored more 2s, given the fact that the students were in the first week of the System. The first three objectives were clearly achieved. Better "doctor"-"patient" rapport can be established if clinical sessions and PBL can be merged. Using Facilitators as "Patients" and also including a "pharmacy" is expected to improve the process significantly.

ABSTRACT NUMBER: IRI 4
Design and testing of Observation Practice Educational Networking (OPEN) tool to improve retention technical clinical skills

Adam Dubrowski
University of Toronto, Ontario, Canada

Background
One shortcoming of simulation-based training is that the learning ends when trainees leave the simulation laboratory. Educational networking environments offer opportunities to extend simulation-based learning outside of the lab. We designed and tested an educational networking environment (OPEN) that relies on video recorded, individual performances for the purpose of extending the educational value of simulation in teaching technical clinical skills.

Methods
OPEN was developed using Moodle, an open-source web application that supports social constructionist educational models. 26 trainees practiced ventrogluteal injection technique on a part-task simulator. Their last practice attempt was considered a pre-test, was recorded and used as an input for OPEN. Participants were then assigned to 3 groups with variable collaborative permissions in OPEN: control (observed expert demonstration); self-assessment (observed expert demonstration, assessed their own performance and received expert feedback); and full collaborative (observed expert demonstration, assessed their performance and received expert feedback, and engaged in peer-to-peer, two-way asynchronous feedback collaboration). After two weeks, participants returned for retention and transfer tests. Performances on all tests were assessed using validated video-based expert assessments.

Results
The retention analyses revealed significant interactions ($F(2, 22) = 4.00$, $p = .033$), which described that only the retention test performances of the full collaborative group were rated as significantly better than pre-test. The transfer analyses revealed main effects ($F(2, 23) = 6.73$, $p = .005$). Those in the full collaborative group performed better in transfer than those who participated in the control group.

Interpretation
The results suggest that educational networking environments are effective in extending simulation-based learning. The effectiveness is directly proportional to the level of collaborative interactivity. We speculate that they aid observational learning by increasing the amount of

feedback and deliberate practice shaped to the learners' specific needs. We suggest that these low cost solutions should be incorporated to simulation-based training.

ABSTRACT NUMBER: IRI 5

Innovative use of peer assessments to detect poor performers and dysfunctional teams

Jennifer Perera, Nuwangika Marcellin, Chathuri Maddumarachchi and Gominda Ponnamperuma
University of Colombo, Colombo, Sri Lanka

Introduction

Group learning is being widely used in undergraduate curricula. Use of peer assessments (PA) enables assessment of individual contribution. However, assessment of group process is important to ensure achievement of objectives of group learning. This study tested two hypotheses: a) Team process is poorer, in groups with high standard deviations (SDs) of their average peer ratings (APR) compared to those with low SDs. b) Students who scored low peer ratings have low cognitive ability and poor team skills.

Methods

Using a validated tool, 201, 2nd year medical students who participated in a field learning activity, were peer assessed on their individual contribution to group work. Each student was assessed by 8-10 peers on a rating scale of 1-5. A group report and an oral presentation were assessed by tutors. Two groups each with high and low SDs of their APR were invited for separate focus group discussions (FGDs). The discussant was blinded to the assessment data. End of 1st year average exam scores of students with high and low APRs were compared.

Results

All groups (except one) with higher SDs of APR received lower tutor grades compared to those with lower SDs. At the FGD, groups with low SDs (0.15 & 0.21) had functioned well as a team, in contrast to groups with high SDs (0.49 & 0.45). PA detected poor contributors. Average examination score of poor contributors (APR≤4) was 55.8% and high contributors (APR=5) 63.3% ($p<0.001$).

Discussion

SDs of APR within groups has an inverse relationship with tutor assessment scores of the final product and team processes. Poor team skills of individuals can affect adversely, the development of cognitive skills and vice versa, thus PA may be used for early detection of such students.

ABSTRACT NUMBER: IRI 6

Tested innovation in clinical anatomy practical learning in a large cohort: Guided Collaborative Learning (GCL) and Multimedia Enhanced Student Peer Teaching- Demonstration (SPTD)

Arkendu Ken and Dr Lakshimi Selvaratnam
Monash University Sunway Campus, Selangor, Malaysia

Devising alternative strategies to improve core competencies in anatomy learning is a major challenge in medical schools following non-dissection-based curricula. Guided Collaborative Learning (GCL), an innovative approach introduced since 2008, was successfully implemented at our local branch campus to address this difficulty. Independent preparation is combined with clinician lecturer facilitated in-practical discussion and Student Peer Teaching-Demonstration (SPTD). Focused practical tasks were designed to engage student-centred small group discussion (GCL) incorporating hands-on use of anatomy resources and facilitated by lecturers. Later, in the multimedia-enhanced anatomy lab, student groups engaged in hands-on peer demonstrations of key practical tasks by data projection of models/palatinate specimens/images (X-rays etc.), surface anatomy and related clinical skills (through student volunteers) broadcast to the entire class and moderated by lecturers. Following the Kirkpatrick methodology, GCL/SPTD was qualitatively and quantitatively evaluated at levels of Reaction (Unit evaluation/ student feedback); Learning (summative exam scores) and Behaviour (peer assessment/ lecturers' review). Qualitatively analysed, the student feedback, lecturers' review and peer assessment all were highly positive. Quantitatively, cross-campus unit evaluation scores (+ 5 to18%) and summative assessment grades (+7%) distinctly improved after introduction of GCL/SPTD (2008 onwards) in comparison to traditional anatomy practical teaching (2007). GCL/SPTD aims to shift the educational positioning of medical students from passive listeners to active problem solvers and lifelong learners, translating Aristotle's philosophy "Teaching is the highest form of understanding" into practice. It also engages students in professional collaboration expected in today's clinical practice, strongly supporting this strategy as a way forward in practical training in medical education.

ABSTRACT NUMBER: IRI 7

Relationship among Glasser's basic needs levels, academic marks, and creativity scores of medical students

Kun Hwang, Fan Huan
Inha University School of Medicine, Incheon, Korea

Background

The aim of this study was to elucidate the relationship between medical student's academic marks and basic needs or creativity scores.

Methods

Two hundred five medical students in the junior class participated between 2002 and 2009 (25-36 students yearly). Students were asked to complete the following: 1) during grades 1-5, Glasser's 4 desired needs (survival, power, freedom, and fun) and 4 perceived needs, and explain why ; 2) answer yes or no to the questionnaire consisting of 40 items of creativity based on Torrance's words; and 3) each student's academic marks of the 4 years was converted into a perfect score of 100 points .

Results

Academic score had a positive correlation with perceived power need ($r=0.159$, $p=0.037$). The academic score had a negative correlation with desired freedom need ($r=0.157$, $p=0.040$) and desired fun need ($r=0.175$, $p=0.022$). Creativity score had a negative correlation with desired survival need ($r=0.209$, $p=0.006$). Creativity score had a positive correlation with perceived freedom need ($r=0.169$, $p=0.026$), desired freedom need ($r=0.203$, $p=0.007$), and desired fun need ($r=0.163$, $p=0.032$). The higher the student's perceived power need was, the higher the academic score was. The higher the student's desired freedom need and desired fun need were, the lower the academic score was. The higher the student's desired survival need was, the lower the creativity score was.

Conclusion
We think checking Glasser's four desired needs and creativity score might be a useful tool to understand the individual medical student and guiding their studies or extracurricular activities.

ABSTRACT NUMBER: IRI 8

A survey on the reliability and validity of assessment tools of midwifery students at the final examination in Mashhad Nursing & Midwifery Faculty

Nahid Jahani, Nahid Golmakani, Seyed Reza Mazluom, Kobra Mirzakhani, Sedighe Azhari and Afsaneh Navaiyan
Mashhad University of Medical Sciences, Iran

Introduction
According to WHO, annually, 515,000,000 maternal mortality (MMR) occurs in the world. While the majority of them are preventable by increasing knowledge & skills in delievery room. Previous studies have shown that the most common cause of MMR is poor performance in delievery units in Iran. The efficacy of undergraduate skill training is difficult to assess without an objective measure of technical skill performance.

Objective
To determine the reliability & validity of assessment tools in midwifery students at the final exam in Mashhad nursing and midwifery faculty.

Materials & Methods:
In this descriptive - correlation study, 31 midwifery students (22 students of 8th term, 9 students of 6th) participated. This research was done in 4 midwifery fields (delievery room, Gynecological unit, prenatal care unit, maternal & child health) during 5 days by 2 examiners (1 of them was blind toward students' knowledge & educational term). Tools used to evaluate undergraduates include: 4checklists which have prepared by Mashhad nursing &midwifery faculty. to determine face and content validity used experts' opinion. concurrent validity (correlation between theorical & clinical mean scores separately & with total score of final exam))) & construct validity computed(differences separately and total in mean scores of the third –year midwifery student , fourth-year midwifery students at the final exams) anticipating that level of training will account for at least 25% of the variance in scores. .internal consistency analyzed by alpha Cronbach coefficient. inter-rater reliability determined by correlation between mean of two examiners in 4 midwifery fields.then collected information was analyzed statistically.

Results
Pearson test indicated that there was middle.concurrent validity (r=0.52 P=0.01) and so face & content validity confirmed (CVI=08-1) also.There was middle to high internal consistency reliability (0.52- 0.83) at every 4-task specific checklists . minmum and maximum of inter-rater reliability calculate 0.73-0.82.

Conclusion
Final examination's tools of midwifery students in Mashhad Faculty of N. & M. are valid & reliable. We recommend to increase concurrent reliability, to plan education & training through cooperation between 2 clinical & educational groups, to eliminate presenting gaps.

ABSTRACT NUMBER: IRI 9

Students grand round in Internal Medicine

David Kandiah
University of Western Australia, Australia

Objectives
The development of consistent clinical reasoning and decision making skills is often limited in medical school curricula. Medical graduates acquire these skills during their first few years of residency. For many this can be stressful as they may be working under limited supervision in some of their rotations.

Methods
"Student Grand Rounds" was developed to transfer both explicit and tacit knowledge to final year medical students. The original pilot project was to apply the principles of knowledge management to allow students to be exposed to the reasoning and decision making of common clinical presentations. Student feedback through questionnaires was collated at the end of the programme.

Results
The initial programme was trialled in mid-2008. Based on feedback and focus groups, modifications were made to produce a stable programme in 2009. Formal feedback was collated from the 76 students who participated in 2009. There was 100% response rate as the feedback forms were given and collected at the end of the last session per block. The student responses were both in ratings defined in a feedback forms as well as by written comments. 74 of the 76 students rated the programme highly. They enjoyed the non-threatening interactions. The remaining 2 students preferred more didactic teaching.

Conclusion
This initiative allows for an efficient transfer and utilisation of knowledge. This could also maximize the acquisition of practical knowledge by medical students as the finish their course in the transition to internship. This is now part of the Final Year curriculum.

ABSTRACT NUMBER : IRI 10

Providence "Sister Teams" Model: An innovative approach to meet the new ACGME standards

Jacqueline Moore, Khalid Zakaria, Basim Dubaybo
Providence Hospital, Michigan, United States of America

Introduction
Many residency programs face challenges in implementing new ACGME duty hour standards which limit PGY-1 tours to 16 continuous hours. Our Internal Medicine Residency Training Program is piloting a new rounding model, which would meet the new ACGME requirements without invoking a night float system.

Methods
Residents rounding on the Internal Medicine General Medicine Wards are divided into "sister teams". Except during night call, the two partner teams are fully integrated, and round with one academic faculty rounder. Team admits patients during day call (7 am – 7 PM) or a night call (7 PM – 11 AM). Residents are admitting patients 2 out of 6 days and cross cover when not on call.

Results
The model enhances patient safety through effective hand-offs at the bedside under faculty supervision. By design and in compliance with ACGME mandated admission caps, the model preserves an optimal level of clinical intensity, volume of admissions, and diversity of clinical conditions. Through redesigning of clinical and didactic conferences, the model also allows the maintenance of all educational opportunities including structured lectures, case discussions, research seminars and journal clubs. The model enhances professionalism including camaraderie and collaborative scholarly activity and preserves the supervisory and teaching role senior residents. Simple tools can be integrated into the model to monitor resident fatigue. Finally, the model is in full compliance with new ACGME duty hour standards.

Discussion
The most popular proposed model to meet the new requirements, the night float system, poses challenges in supervision and teaching. We propose an alternate model that maintains continuity of care, decreases hand-offs, improves participation in residency didactics, and provides structured education and supervision.

ABSTRACT NUMBER : IRI 11
Webinar and synchronous transnational collaborative learning: A recent innovation in medical education

Abdus Salam
UKM Medical Centre, Kuala Lumpur, Malaysia

Background
Technological advancement using computer, software, headset, webcam and internet has become a new educational paradigm in medical education. Webinar and Synchronous Transnational Collaborative Learning (STCL) are significant technological recent innovations of MedEdWorld. MedEdWorld is a unique online platform of medical education community, aimed at medical schools to share ideas and collaborate in further development of medical education globally. MedEdWorld offers webinars on exciting medical education topics for academicians given by the recognized authorities and institutions' options for their students to join STCL with students from other schools on common topics, presented by the experts on relevant topic. The webinars and STCLs are scheduled regularly. Only MedEdWorld members can avail this opportunities.

In Malaysia till now, only one medical school had the opportunities to take part on webinars and STCLs regularly. To ensure anonymity the name of the institute is not revealed here. The institute initially enrolled as a premier member and as such became partner institution of MedEdWorld. As a partner institution of MedEdWorld, the institute benefits its academicians and students to aware on aspects of medical education and internationalizes the institutes' contribution to the global community. The objectives of this paper are to highlight the particular institutes' experience on webinars and STCLs and aware other medical schools on these innovations and keep them updated.

Methods
A retrospective study on MedEdWorlds' webinars and STCLs conducted from September 2009 to November 2010 were carried out. There were institutions from around the world, participated in these innovations during this period and represented their countries. The particular institute represented Malaysia by participating nearly around 9 webinars and 6 STCLs. At the end of every webinar and STCL, a self-administered questionnaire was distributed to all participants of the institute to investigate its participants' view, and a qualitative analysis was done.

Results
The academicians' common views on webinars were: "Very useful webinar, transmission was a bit slow, I would like to participate again". The common students' views on STCL were: Very interesting experience and should do more often"; "the volume was low otherwise it was a good experience".

Discussion
Webinars and STCLs are useful interesting online innovative collaborative approaches of MedEdWorld to develop medical education. Implementing effective online learning approaches requires careful planning and coordination1,2, upgraded internet connection, and full institutional support2. The institute made it possible to take part in series of innovative approaches and represented not only the Malaysia to the medical education communication community but also the whole Asia, due to its premier membership with MedEdWorld and used MedEdWorld as an important resource for education. It was the commitment of the particular institute to bring effective changes and raise the standard of medical education which given the staffs' opportunity to use MedEdWorlds' events.

No effective changes can be expected in medical education unless staffs are given the resources to implement the theories.3 More medical schools should become partner institution of MededWorld and more staffs should take parts in webinars and STCLs in order to raise the standard of medical education.

ABSTRACT NUMNER: IRI 12
Shadow housemanship "Oncall" Emergency Stimulation (SHOES)

Mafeitzeral Mamat, Suraya Ahmad, Isnul Hady Ismail, Mustafa Jerjess
University Technology MARA (UiTM), Selangor, Malaysia

Background
Medical schools have trained their graduates to grasp the fundamentals of medical practice well. However, preparing them to provide advanced life support (ALS) may remain pseudo-practical or as passive observers. The career threatening culture shock of crisis management may happen during their housemanship training.

Evidence show that crisis simulation exercises enhances experiential learning. It creates sense of realism and churns out leadership skills and team work appreciation in working diligently under stress. It's PBL in action!

The development of sophisticated mannequins with highly electronic intelligence in giving feedback has revolutionized simulation based training. It provides the students with a sense of true physical presence with real time interactivity. No real lives lost and students realize and reflect on their actions.

Organizing "real time" on call simulation sessions provide the pre-housemanship doctors an introduction to the reality of highly adrenaline charged experiential learning.

Description of innovation
This is a special programme which runs concurrently during the 2 weeks shadow housemanship course post MBBS final professional examination.

A briefing will be given after the ALS revision lecture on the first day of the course. Students will be divided into their "on call" groups. During the 2 weeks, selected groups will be randomly alerted preferably after office hours known as "CODE BLUE ACTIVATED".

The selected groups will be expected to appear at the Simulation Lab: Clinical Skills unit as soon as possible. Using METi-Human Patient Simulator (HPS) mannequin, a scenario will be created to mimic the usual acute emergency scenarios in the ward. The crisis flow involves acute care which will progress to Advanced Life Support.

Their actions, behavior and dynamics will be observed and recorded via video player. The patient's outcome will be entirely dependent on group performance to offer differentials in diagnosis and administer appropriate management in a highly stressful environment. Each group will be given marks according to a set of criteria.

At the end of the course, a special de-briefing session will be organized and students will evaluate themselves by watching their own videos. The highest scoring group will be rewarded.

A feedback questionnaire will be provided to the students in the end to evaluate their experience and opinion regarding the exercise.

Conclusion
This programme is organized by personnel with experience in post graduate Anesthesia Crisis Simulation Management (ACRM). We believe that our innovation will give the necessary knowledge and experience to medical students in their transition to become high quality doctors.

ABSTRACT NUMBER : IRI 13
A way to improve the validity and reliability of viva voce Examination

Saman Wimalasundera
University of Ruhunba, Matara, Sri Lanka

Introduction
Viva voce Examination has been a way of assessment in Medical Examination for a very long period in many medical schools throughout the world. It lacks validity as a test instrument. Various other situational factors play a major role in this. E.g. .Anxiety, Halo effects, Leniency, and Contrast judgments.

Description of innovation
Structured bundles of viva questions were developed in three different cognitive levels and using such bundles a book of viva guide was made. Questions developed comprised of several question bundles where one bundle included three questions on same topic in a structured manner but at three different cognitive levels with model answers. Candidates were allowed to select their level for examination to pass or higher rank.

A separate mark sheet was used for marking that specified for three types of answers given by students for each level question namely, correct answer, partially correct answer, and incorrect answer.

The examiners were expected to ask four questions from the structured question bundle book. One free question from the examiner is allowed at examiners choice (EC).

Results of evaluation
This format of assessment was introduced to a batch of medical students at their 3rd MBBS part 2 examination for community medicine.. Their performances were compared with previously conducted viva voce examination for another batch of students who faced for normal routine viva voce examination.

Year	No. of students	Fail	Pass	50 – 75	75 -100
2008 (structured)	138	26 18.8%	31 22.5%	63 45.7%	18 13.0%
2005 (routine)	130	28 21.5%	56 43.1%	34 26.1%	12 9.2%

Discussion
This attempt was made to improve the validity and reliability of the examination by providing structured questions and model answers to the system and assigning a specified mark for each answer given by students. Some examiners were not happy about the method but the students were satisfied with the method.

The results at the examination do not show marked difference in total pass rate but there was a tendency toward scoring more mark. Higher percentage of students was in the category of 50 – 75 range. That indicates bettor performances by students.

ABSTRACT NUMBER: IRI 14
Innovation in teaching and learning clinical skills in an undergraduate PBL curriculum

Zafar, M., Asery, A. T.
King Fahad Medical City, Riyadh, Kingdom of Saudi Arabia

Introduction
Clinical skills are the fundamental elements of the clinical method competencies upon which clinical practice is founded. Clinical skills education remained misunderstood, undirected and not fully accepted by the students The aim of the innovations were (1) to stimulate and motivate students in improving the learning of clinical skills in the undergraduate PBL curriculum, and (2) to provide an academic research opportunity to study the effectiveness of clinical skills curriculum.

Methods
A poster making competition and an oral quiz were announced. A total of 145 male and 70 female students, studying in year 2, 3 and 4, during the academic year 2010-11 participated. Students were asked to make posters for selected titles of clinical skills, which were displayed in an exhibition. A panel of judges selected the best posters. For quiz, students were divided into two groups, with 6 teams in each group. Two teams qualified from each group for semifinals. The winner semifinalist teams participated in the final. An evaluation form having five point Likert scale was designed and distributed to all participants. The Cronbach reliability coefficients was 0.9480.

Results
The survey response rates ranged from 97.5% to 100%. The students were very enthusiastic and liked the idea of competition. Some of them were very creative in presenting their ideas. They were highly satisfied with their performance in learning clinical skills through this innovative idea. They acknowledged that this innovation greatly increased their knowledge, provided a healthy academic environment, increased the sense of competition, increased confidence in their abilities to perform their own task and that the clinical skills teaching was useful for developing their communication, physical examination and clinical reasoning skills.

Conclusion
Introducing this innovation enabled us to stimulate and motivate our students and provided both process and outcome evaluations. We are in an ongoing process of collecting outcome data for further analysis which will hopefully provide more constructive information to the clinical skills curricula.

ABSTRACT NUMBER: IRI 15
Elective course for personal development – What new life-skills appeal to medical students?

Nasrin Jahan,Hamidah Abu Bakar and Dr Yong Rafidah Abdul Rahman
Cyberjaya University College of Medical Sciences, Selangor

Background
The medical curriculum in Cyberjaya University College of Medical Science (CUCMS) includes a two-credit, compulsory Elective course for personal development. This course is placed in the fifth semester, upon completion of pre-clinical phase of the medical program. It is a structured, self-managed course where students are required to learn beneficial skills for doctors, but through non-medical activities. They design their own learning contracts as well as learning plans. Each student is supervised by two supervisors. At the end of the two-week course they submit a report as well as conduct a poster or oral presentations or a demonstration of the newly acquired skills. Objective of this study is to identify popular life-skill courses that medical students perceived to enhance their personal development.

Methods
This is a retrospective study where data was analyzed from students' report submitted. Total 232 students completed the course in 2009 and 2010. A quantitative analysis was done on choice of life-skills or activities to complete the requirements of the Elective Course.

Results
More than a quarter (26.7%) of students' choice was to learn the in-depth of sports. These include enrolling themselves in private courses that taught scuba diving, swimming, horse-riding, wall/mountain-climbing and others. About one-fifth (21%) learned cooking or baking in both the years. Other areas of interest were photography, teaching, learning music, dancing, new language, sewing, making handicrafts as well as volunteering.

Conclusion
As expected of young adults, high number of students may have perceived personal development can be enhanced through sports. This is appropriate as sporting activities is known beneficial in self-care and stress management – which are important skills for doctors. Students applied skill in cooking considering safety of food preparation and health benefit of recipes'.

Medical schools need to consider making sports and other life-skills as compulsory subjects in the undergraduate curriculum.

INSTRUCTIONS TO ORAL PRESENTERS

1. Please report to the Secretariat Room which is situated at Level Four and hand over your power point presentation. We use MS OFFICE 2010 which can convert MS OFFICE 2003 and 2007 into the compatible format. Our system supports the video files in MOV, AVI, MPEG, WMV and RM format.

   I. Presenters for 24th March 2011: Please hand over your power point presentation to Secretariat by 10.00 am on 24th March 2011

   II. Presenters for 25th March 2011: Please hand over your power point presentation to Secretariat by 10.00 am on 25th March 2011.

   III. Presenters for 26th March 2011: Please hand over your power point presentation to Secretariat by 10.00 am on 26th March 2011.

2. Please make sure to report to the Chairman of the session at least 5 minutes before the start of the session and provide him/her with a brief introduction about yourself.

3. You will be given 8 minutes for the presentation and 2 minutes for Q & A. Please make sure that your presentation is for 8 minutes. The first bell will be rung at 7 minutes and the final bell at the end of 8 minutes. Please do not go beyond the time allocated.

INSTRUCTIONS TO POSTER PRESENTERS

1. Please put up your posters by 10.00 AM on 24th March 2011. All posters will be displayed at "Broadway", Level 2.

2. Poster size should be 43 inches by 32 inches, portrait.

3. Velcro /double sided tape will be provided at the registration desk. You may ask for help from the student runners who will be stationed at Broadway between 8-10 am on 24th March.

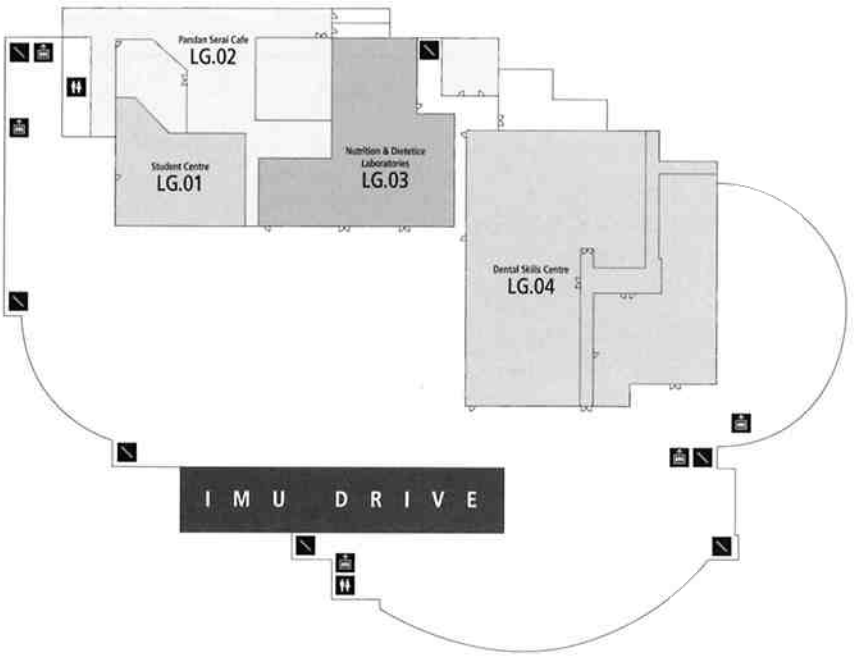
4. The short - listed finalists for the best poster presentation will be judged on 25th March 2011 at 11.30 AM to 1.30 PM. Please man your poster during this period.

5. All the posters should be removed by 4.00PM on 26th March 2011

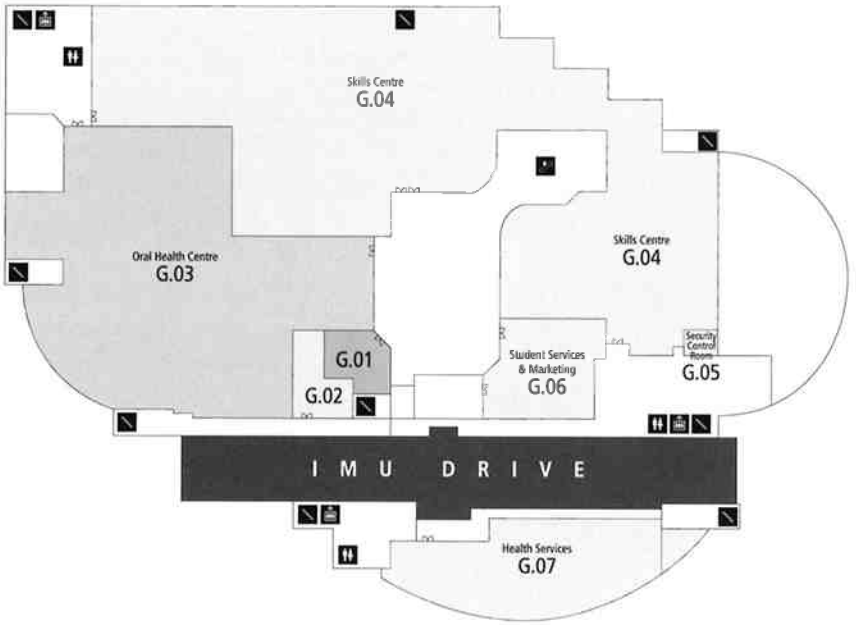
NOTES

Floor Plans

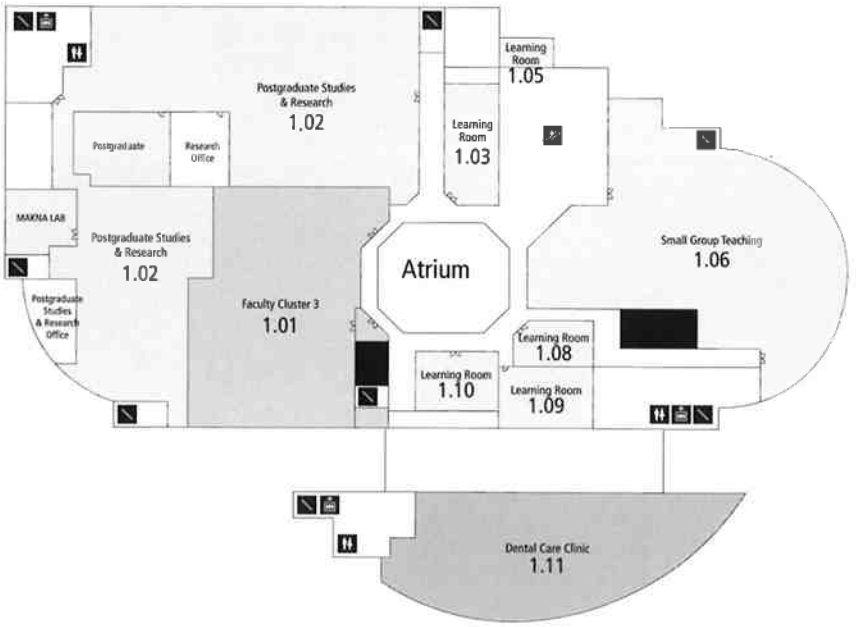
Lower Ground Floor



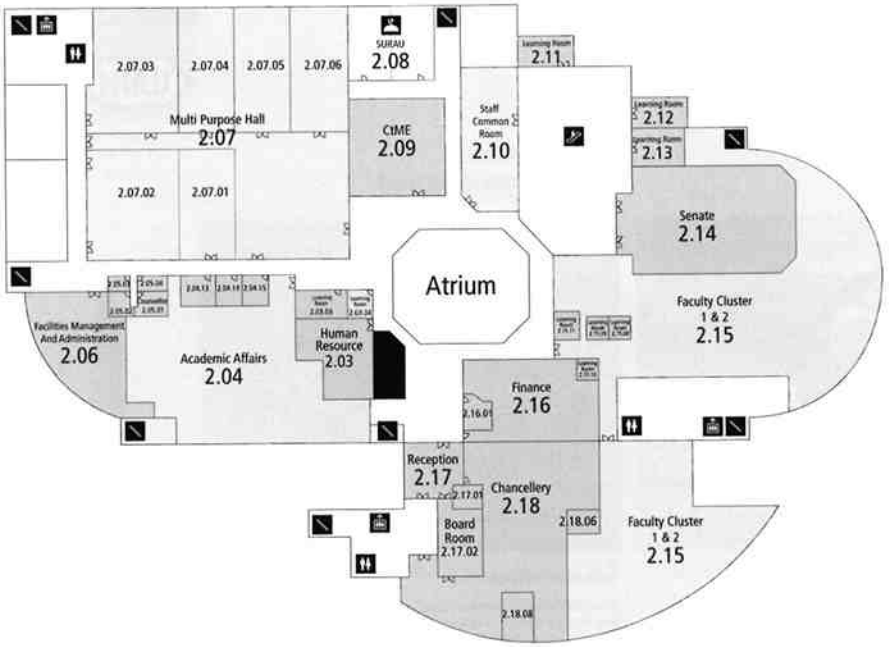
Ground Floor



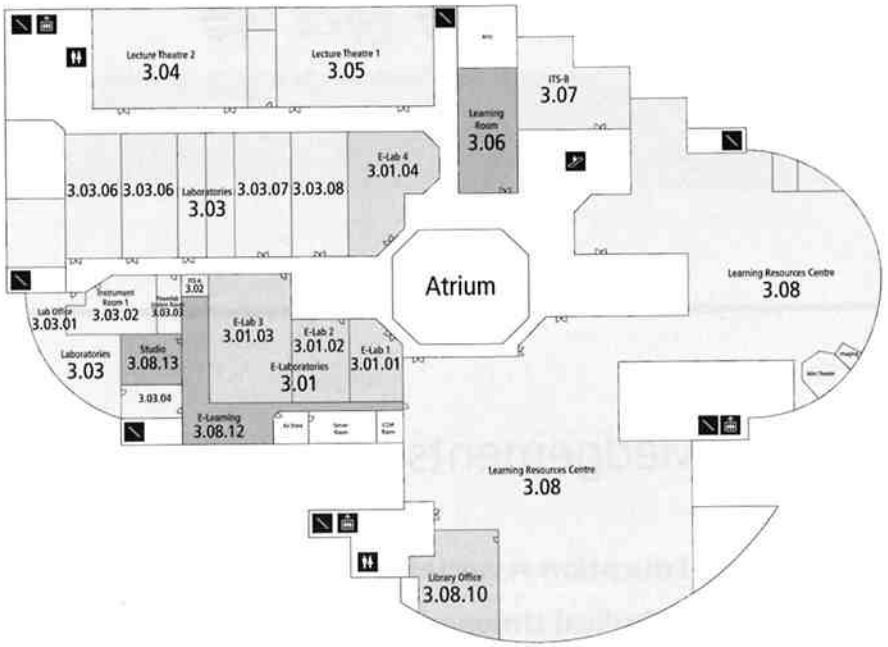
Level 1



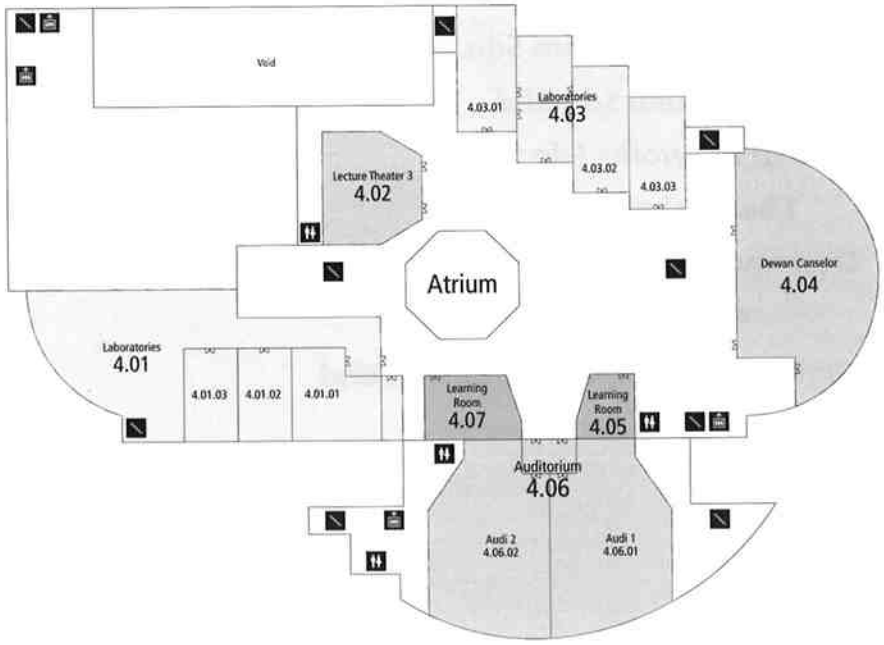
Floor Plans



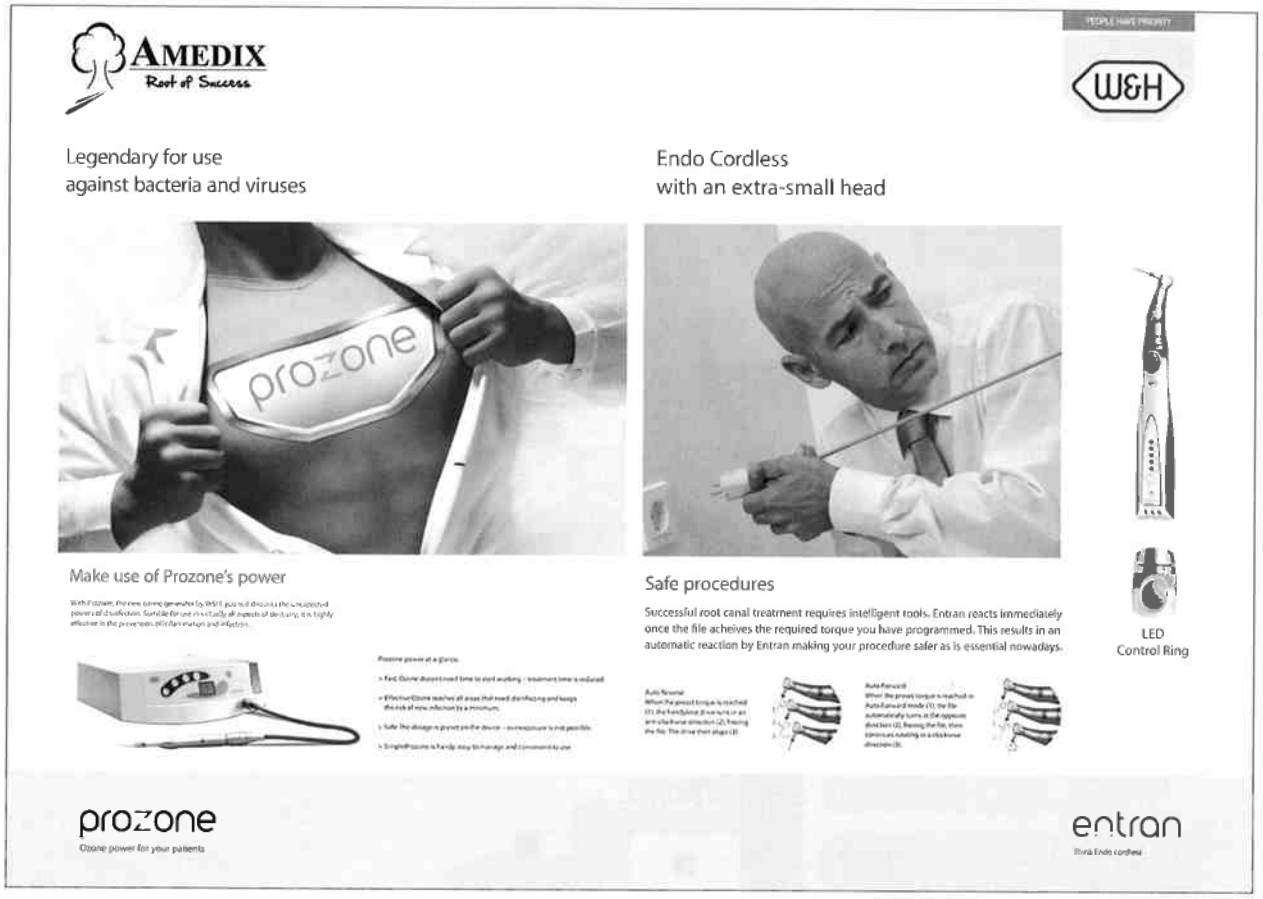
Level 2



Level 3



Level 4



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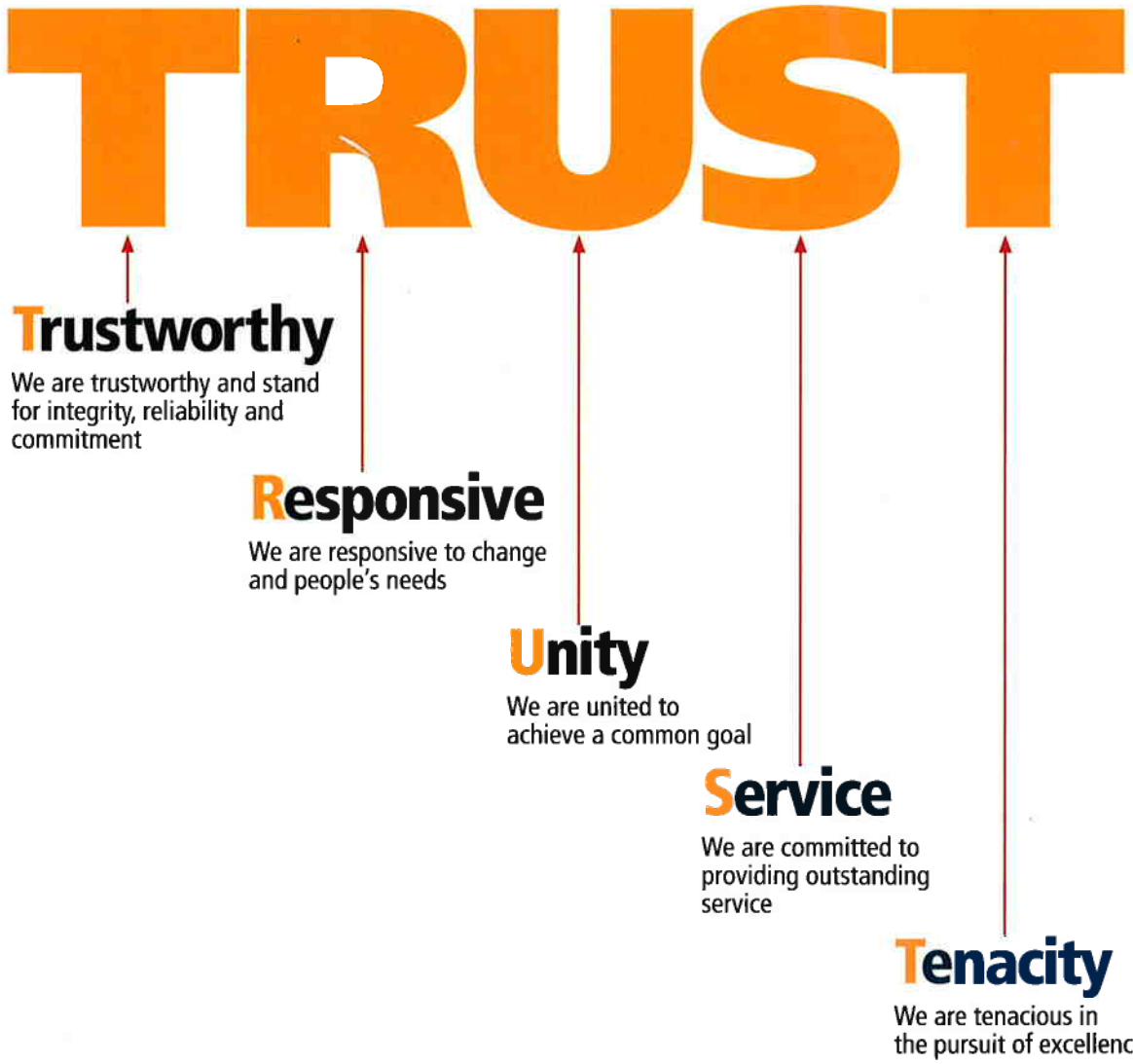
MALAYSIA

Our Core Values



TRUST builds Tomorrow's Leaders

We transform and inspire individuals to be tomorrow's leaders

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