ABSTRACT NUMBER: OC1
An IMU Masters In Dietetics Programme
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Background
Currently there is an estimated 700 nutritionists employed in Malaysia with just a basic degree in BSc Nutrition and about 400 dietitians working with only an undergraduate degree of BSc Dietetics without any postgraduate qualifications. They are busy working in the Ministry of Health as community Nutritionists or dietitians in government or private hospitals. Only a small percentage had the opportunity to further their studies. It is quite difficult for them to pursue a higher tertiary qualification without having to take study leave or resign from their current posts and lose their seniority. It is therefore very important to work out a means for them to pursue postgraduate places to further their studies.

Description
The nutritionists who would like to practise dietetics can now register for a postgraduate Diploma in Dietetics that Universiti Kebangsaan Malaysia is offering starting from 2007. It basically involves these candidates to piggy back on the undergraduate BSc in Dietetics Programme. They are required to take the final year professional training of the basic undergraduate courses and the have to be at par or better than the undergraduate dietetic students. Bearing in mind that these candidates are mature students and treating them like the undergraduates without appreciating their background knowledge and working experience may pose a problem in their training. This involves adult education techniques. It is therefore more conducive to offer a Masters course in Dietetics and towards the end of the day they can practice dietetics as well as obtain a masters Degree as compared to the Postgraduate Diploma in Dietetics. The courses taught will comprise of applied nutrition and dietetics subjects which are evidence based. It should be tailored towards the application of knowledge and practice in their working experience and prior knowledge acquired in their previous education can be very useful to further obtain an in depth knowledge in the areas of Nutrition and Dietetics. The clinical courses taught should be more applied and hands on cases given by a dietitian and physician team. The professional courses have to be separated from the undergraduate curriculum. The basic dietetic skills are done differently from the undergraduate students. The Masters in Dietetics programme plans to cater for those working nutritionists and dietitians to do the degree at their own pace. They are allowed to come as part time and those classes that have laboratory training are required to attend the afternoon or weekend sessions. Other courses can be converted to online or e-learning whereby the candidates can do their assignments and reading off office hours. Many new areas of current information in the area of nutrition and dietetics will be offered as electives whereby they are encouraged to take to strengthen their background knowledge. There will be a few categories of candidates. The first group will be those who can take a two-year study leave and attend the classes fulltime and the other group will be part time students from all over the country. As for the clinical training they are required to have basic dietetics skill training at the IMU skills lab for a fixed period of time before they are posted to training hospitals close to their working places to enable them to allocate certain days of working and training.

Conclusion
The Masters in dietetics offers a lot of flexibilities to enable any interested candidate to work out a study plan to suit their working and family life while pursuing a postgraduate degree. What is most important is that while achieving a Masters degree they can also practise dietetics unlike the Postgraduate Diploma in Dietetics whereby they are equivalent to an undergraduate training in Dietetics. Furthermore they do not have to compete with the undergraduate in their training considering that they are a more experienced candidate in there area of expertise. This is definitely an optimal way to upgrade their status. It should be very attractive for these estimated 1000 over candidates eligible for the programme.

ABSTRACT NUMBER: OC2
Developing Generic Skills in Medical Students: How Do We Do This?
Michelle McLean, Sami Shaban

Background
We cannot expect our students to know everything in Medicine. Rather, we should develop generic or transferable skills (e.g. computer literacy, communication skills, managing learning). In the Faculty of Medicine and Health Sciences, United Arab Emirates University, the first two years (Medical Sciences Course; MSC) prepares students (Nationals, English second language) for problem-based learning in an Organ System Course. During MSC, a Medical Skills and Communication Course (MSCC) integrate skills development with the traditional medical sciences (Anatomy, Physiology, and Biochemistry).

Objective
Use of a validated quantitative inventory to track student perceptions of their development (experience and confidence) of 31 transferable skills in 5 categories (e.g. information handling, presentation and organisational skills).

Methods
Incoming Year 1 MSC students completed a generic skills inventory. For each skill, students indicated their level of experience and confidence. On a separate sheet, they were asked to identify their strengths and weaknesses. A year later, the same survey was administered. Students were reminded of their identified weaknesses and were asked how these had been addressed.
Results
For both academic year and gender, significant differences were measured between students’ perceived level of experience and their confidence. Over the academic year, only the ‘ability to manage learning’ was statistically increased for the cohort (females in particular). Despite the quantitative instrument not indicating significant skills development, the qualitative supplement suggested that the MSCC had contributed to skills development.

Conclusion
The quantitative inventory suggested little change in the development of students’ skills over one academic year, which may reflect a more realistic perception regarding their abilities in their second academic year. On the contrary, the qualitative supplement considerable skills development. As perceptions are likely to change over time, it may be difficult to track student development using such an inventory. Additional tools or measurements may be required to detect changes.

ABSTRACT NUMBER: OC3
Complimentary Practitioner Training In Physical Examination Resistance To Change Amongst Educators And Practitioners
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Background
Increasingly complementary practitioners are the first port of call for a public dissatisfied with a mainstream medical approach. This raises the question as to what extent such providers should be trained in the detection and diagnosis of disease. The training of Australian chiropractors in this area has come under scrutiny in recent times. This paper reports on a survey of practising chiropractors on their use of the physical examination procedures and the extent to which they believe undergraduates should be trained in this area. The paper also reports on the shifting views, debate and resistance to change within an educational institution training chiropractors, to efforts to reduce the amount and depth of training in physical examination.

Method
Over 300 practising chiropractors responded to a survey assessing their use of physical examination procedures and the training they believe undergraduates should receive in this area. The outcome of a workshop at which staff of the RMIT Division of Chiropractic discussed the proposal to reduce the amount and depth of training in physical examination.

Results
Surveys reveal an overwhelming majority of practitioners feel that broad and detailed training across all areas of physical examination currently taught should be maintained, in spite of the fact that practitioners report such procedures are seldom made use of. This position is also held by many RMIT staff members who believe that current levels of training should be maintained for reasons concerning public safety and the imperative that chiropractors maintain primary contact status privileges within the health care system.

Conclusion
There is considerable resistance by many staff within the RMIT Division of Chiropractic to reduce the depth and extent to which physical examination is taught as a part of undergraduate chiropractic training; concerns regarding public safety and political imperatives explain this resistance. The question of to what extent curricula content should reflect vocational requirements is raised. That of the extent to which political imperatives should direct curricula content is also raised.

ABSTRACT NUMBER: OC4
Analyzing Winds Of Change: The ‘Colombo Model For Reforms’
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Background
Faculty of Medicine of the University of Colombo (UCFM) (established in 1870) had a conventional discipline based curriculum. In 1989 it embarked on curriculum reforms, culminating with the commencement of a ‘new’ curriculum in 1995. The ‘new’ curriculum had a new integrated teaching/learning structure and several other innovations. The experiences of UCFM were used to develop a conceptual model of reforming an established undergraduate medical curriculum.

Description
Six overlapping phases were distinguishable in the reform process.
- A climate for change: facilitated by formal and informal discussion on concerns relating to the ‘old’ curriculum
- A mandate for reforms: e.g. approval from Faculty Board, University Senate and Council
- Develop concepts and plans: Reflect and discuss inputs from medical educationists, and experiences of those visiting universities with innovative curricula. This iterative process enabled UCFM to develop a unique ‘new’ curriculum.
- Implementation
  - Transition: Planned allocation of work and time-tables for a smooth transition
  - Institutionalize: Gain approval from Senate, Medical Council and professional bodies. Amend the regulations of University Act and introduce new systems of financial flows.
- Consolidate: Promote conceptual and behavioural changes in staff to meet needs of ‘new’ curriculum
- Evaluate: On-going evaluation of curriculum to fine-tune and introduce further innovations
Conclusion
Curriculum reforms in health professional education have become widespread. However, some established universities have resisted reforms. This reluctance to reform maybe multifactorial (e.g. contextual factors such as culture, and lack in knowledge on how to reform an organization). The emphasis in the literature on the contents of reforms rather than process of reforms does not help this situation. We propose the ‘Colombo Model for Reforms’ as a model for universities that wish to reform their curricula, especially those in Asia with a similar cultural context.

ABSTRACT NUMBER: OC5
The Family Medicine Programme At Faculty Of Medicine, Colombo, Sri Lanka: A Content Analysis
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Background
Family medicine is an integral part of global undergraduate medical curricula. The recently introduced 2 week programme in family medicine for 3rd year medical students at the Colombo Medical Faculty; reflects this initiative. The objective was to evaluate the above programme and identify its strengths and weaknesses and recommend areas for improvement.

Methods
Several curricular documents were reviewed and the programme discussed with the programme coordinator. The programme objectives were compared with faculty objectives and then tabulated according to type and level of educational competencies. Next the alignment of content and teaching/learning methods with the programme objectives were blueprinted.

Results
The programme objectives encompassed most objectives of the medical course; but objectives such as promoting research skills were not addressed while teamwork and healthcare personnel training were addressed inadequately. The programme objectives were poorly constructed, not specifying the level of competency required. When reviewed verbatim, the majority of objectives were at low levels of competency. The content covered most of the objectives. Focus on Continuous Medical Education and affective competencies were minimal. The teaching learning methods in the programme included lectures, SGDs, patient interactive sessions, role plays, student presentations and observation. The majority of teaching/learning was lecture based. Opportunities for skills training and clinical clerkship were limited. There were no methods to assess student achievement of objectives.

Conclusions
The family medicine programme addresses important aspects of primary healthcare. The objectives should be better constructed to reflect the outcomes to be achieved and important aspects such as research skills, teamwork and healthcare personnel training in primary healthcare should be incorporated. More student centred learning activities and an objective and structured assessment system should be included.

ABSTRACT NUMBER: OC6
The Role Of Curriculum Document Analysis To Gain Insight In Designing Feedback Survey questionnaire
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B P Koirala Institute of Health Sciences, Dharan, Nepal

Background
B P Koirala Institute of Health Sciences, Dharan, Nepal, has an integrated and partially problem based undergraduate medical curriculum which has not been evaluated since its implementation. We wanted to know the strengths and weaknesses of the medical curriculum through a feedback questionnaire. However, it was difficult to ascertain what should be the focus of the feedback questionnaire and the role of the curriculum document analysis to be considered in providing insight for a focused feedback questionnaire. Therefore, our objectives were to determine the role of curriculum document analysis in developing a focused participants’ feedback questionnaire that is related to the strengths and weaknesses of medical curriculum. Hence, the research question was, ‘Does curriculum document analysis help in designing a participants’ feedback questionnaire?’

Methods
The study has been carried out utilizing the following tools:
1. Curricular document and teaching schedule analysis for extent of alignment practiced and outlined using a matrix grid.

Results
Mismatch between class hours and assessment.
More recall type of questions.
Unequal distribution of various types of MCQs
Previous test items repeated in the new version of the same examination
Results of the document analysis were used in designing focused participants’ feedback questionnaire and the responses were similar.
Conclusions
The weaknesses, as evident in the result of the curriculum document analysis, were used to construct a focused close and open ended participants' feedback questionnaire. The strength of a feedback process lies in the prior document analysis for an established and ongoing program.

ABSTRACT NUMBER: OC7
The Changing Role Of Education In Pharmacology: Meeting The Demands Of The Pharmaceutical Industry
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Background
The Australian pharmaceutical industry increased its research and development activities over 6-fold from 1988-1998 (Australian Pharmaceutical Manufacturers Association Facts Book, 1999). Australian data indicate that clinical trials represent 42% of pharmaceutical research and development expenditure, while the number of trials per drug doubled in the period from 1985-1995. The pharmaceutical industry thus represents a growth sector for employment of graduates with the relevant skill base.

Description
In response to this demand, in 2001 RMIT developed a unique undergraduate degree program in Pharmaceutical Sciences to cater specifically for the pharmaceutical industry and related areas. The program was designed in close consultation with the pharmaceutical industry through both informal discussions and a survey in which 22 companies responded. This process identified strong support for the program, aided in the selection of the final course structure, and emphasised the importance of industry-based training. The degree is a 4-year program: 3 years of coursework and a 1-year professional practice work placement in pharmaceutical industry during the final year. Students gain core competencies in pharmacology, toxicology, human physiology, pathology and biochemistry, as well as advanced knowledge in industry-focused areas such as therapeutics, drug regulations, clinical trials, drug development, toxicity testing, and molecular and cellular biology. The 1-year professional practice component is funded by an industry-sponsored bursary scheme enabling students to work with major Pharma companies (e.g. Bristol-Myers Squibb, GlaxoSmithKline), pharmaceutical research organisations (e.g. RMIT Drug Discovery Technologies, Baker Heart Research Institute) and government bodies (Therapeutic Goods Administration, TGA).

Conclusion
The degree program has resulted in a 100% employability rate, enabling graduates to enter directly into a variety of vocational areas related to the pharmaceutical industry including: pharmaceutical companies (research and development, clinical trials, regulatory affairs and marketing); clinical trial centres; government regulatory authorities (e.g. TGA); and biomedical research in hospitals, universities and research institutes.

ABSTRACT NUMBER : OC8
The Educational Value Of Critical Reflection within Clinical Learning
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Background
First year students in a chiropractic program were required to submit two assessment tasks in which they reflected in a structured, critical manner on two pre-determined clinical experiences. The first was to submit to a health assessment by a senior student in the university's teaching clinic and the second was to observe a field practitioner in their own practice. In addition to determining the assessment grade for each student the reflective pieces were analysed to identify themes of relevance to the four educational objectives that underpinned the exercise.

Description
The class of 109 students returned 107 completed reflective journals. The four educational objectives that underpinned the exercise were to determine (a) whether chiropractic students have capability to participate in a clinical activity and then reflect on it in a meaningful manner; (b) the themes that would emerge from the reflections by these students; (c) whether prompts could be written by the instructor to guide the work; and (d) whether chiropractic students have the capability to critically reflect about their own role in their learning. Seven themes were evident in the majority of journals. There were: (1) reinforcement of the student's career choice; (2) reinforcement of the student's approach to learning; (3) connection between class-room learning and the clinical workplace; (4) feedback to instructors of current workplace practices; (5) insight into the university's own learning practices in the teaching clinics; and (7) connected learning through critical reflection.

Conclusion
It is evident that appropriate prompts can be written to effectively guide chiropractic students through a process of critical self reflection. The outcomes demonstrate there is educational value in structured critical reflection and that there is strong connection between what the student learns in the classroom and observes in practice.
ABSTRACT NUMBER: OC9
The Role And Mechanism Of “Attention” In Medical Education
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Background
Rapid development in medical education demands an increase in retention and retrieval of information to build the required knowledge base in order to reduce gaps in knowledge. These gaps reduce coherence and result in poor understanding, poor decision making and problem solving skills. Attention is defined as a process of selectively concentrating on some particular information at a time while ignoring others. Hence understanding this process of selection or attention is crucial in order to build knowledge base in medical education. The purpose of this paper is to suggest a mechanism of attention or selection based on recent discoveries in neurosciences and information processing system.

Method
Literature review.

Result
Literature only provides some definitions of attention and some clinical models of it without any exact mechanism. Studies show that only 0.05% of information from sensory memory is selected for processing in working memory and the remaining bulk undergoes early extinction. Recent studies show that information is stored in the form of neuronal connections, triggered by producing strong neuronal activities in various parts of the brain. It is suggested that if voluntary motor activity is involved in processing a stimulus, it will stimulate multiple brain areas bilaterally to produce neuronal activity strong enough to maintain it in working memory and to protect it from extinction.

Conclusion
Attention is described as a process of associating new information to a voluntary motor activity and may be achieved by reading or repeating the material vocally or sub-vocally. Attended information is protected from extinction and is processed further to use in building knowledge base. This study also suggests that brain matches incoming information with some present, past or future issues before its extinction. This matching highlights the importance of having pre-requisite knowledge and future goals in learning, because in the absence of appropriate pre-requisite knowledge or identification of future goals, even the important pieces of information may remain unmatched and undergo extinction without ever coming to our attention.

ABSTRACT NUMBER: OC10
Free Yet Poorly Utilized Online Learning Resource: The Pedagogic Potential And Feasibility Of Using Video Clips As Triggers For Problem Based Learning
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Background
The artificiality of triggers for Problem Based Learning (PBL) created out of facts gathered from textbooks defeats one of the objectives of PBL- to prepare the learners for the real life situations which they are likely to encounter. Although a Medical University may have been practising PBL, video clips freely available from websites such as You-tube are yet to be effectively utilized as PBL triggers. The objective of this presentation is to share with the audience two sample video clips by way of discussing their pedagogic potential.

Methods and Discussion
One of the PBL group members is to bring a laptop computer with batteries fully charged. The video clip is then shown to the group (a downloaded file or the one streamlined directly from the internet (provided wireless broadband facility is available).

1. As a supplementary material to the PBL trigger on Tropical Eosinophilia due to filariasis, the PBL group viewed a video clip about a man who uses his grossly swollen scrotum (elephantiasis) as a place to sit on and as a table to work on. The learning issues raised by the learners included the role of lymphatic blockade in pathogenesis of oedema and tissue swelling, the infectivity of such patients, and the possible surgical correction of the deformity. They could draw an analogy to swollen brawny arm as a result of radical mastectomy.

2. As a trigger for PBL, a video clip (color=#003399 >http://www.youtube.com/watch?v=5GNzBFnUAdo) about a Chinese lady born without hands but who learns to use her legs just like hands will be presented. How she uses her feet in activities like washing face, combing/clipping hairs, catching crabs, cooking, threading a needle, sewing, doing embroidery etc) is so efficient that the viewer tends to forget these are feet and not hands. Some learning issues: structure and functions of upper limbs vs. lower limbs, the type and range of movements of various joints, the control of voluntary movements and their coordination, the motor homunculus and cortical plasticity, the causes of congenital absence of limbs including the Thalidomide disaster, the resilience of the human body and the indomitable nature of the human spirit. The audience may provide more learning issues.
**ABSTRACT NUMBER: OC11**

**The Mid Week Session In PBL: A New Model In Faculty Of Medicine, King Fahad Medical City, SA**

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**Introduction**

The PBL started to spread in different cultures such as Eastern culture especially Saudi cultures in where the PBL were adopted in more than 5 medical schools in a year. Such culture's students are different from western cultured students on whom most of the studies carried out. It was noted that the students' performance in the small group discussion and in exams is not as it was expected. Also the students have not good interpersonal communication which affects the team work. So we assumed that introducing the midweek session might improve these concerns.

**Material and Method**

The study included year 3’ students (36 students). The small group discussion was carried out in the middle of the week (mid week session) between the brain storming and the debriefing session. Each group contains 9-10 students. During that time the faculty helped the students by saving a space (classes) and a staff who followed the students’ performance without intervention and/or evaluation. The marks ± SD of the students at the Weekly quiz, Midblock and End of the block examinations were evaluated. Moreover a questionnaire was designed to survey the students’ opinion about the midweek session. Chi square and ANOVA tests were used to analyze the data.

**Results**

The means of the marks were compared in pre and post midweek session's implementation. The marks' means were significant higher (ANOVA= 0.003) in the units (Cardiovascular 45.3±11, Respiratory 56.4±13) in which the midweek sessions were applied compared to the other units (Immunology 70.9±12, Haematopoitic 69.7±13). Moreover a survey showed that the students have a positive opinion about the implementation of the midweek session.

**Conclusion**

The midweek session has a good impact on the students’ performance in gaining knowledge and in the PBL activities as results of increasing communications and motivation. More studies need to be performed to clarify these issues.

Key words: Small group discussion, Midweek session, Problem based learning

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**ABSTRACT NUMBER: OC12**

**Teaching Community Health In Community-Oriented, Integrated, PBL-Based Curriculum**

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**Background**

Community Health is an important part of any undergraduate medical curriculum. Lately, it has acquired more attention with the anticipation of the graduate medical doctors to have more roles and competencies than merely clinical “treating” doctor.

The Faculty of Medicine at King Fahd Medical City (KFMC) in Riyadh, Saudi Arabia is a recently launched, Problem Based Learning (PBL) based, Community-Oriented school. To achieve its goals, community health was considered an essential component and guide for the whole curriculum.

**Description**

Community Health element of the curriculum is introduced through three components. The first component involves two longitudinal courses taught in years 3 and 4. The first one includes the basic principles of community health, basic epidemiology, and applied community health in schools, work places and neighborhoods. The learning activities include field work, seminars, interactive lectures and tutorials. The second course is focused mainly on community research project where students conduct research project with emphasis on selecting an important community health problem.

The second component involves integrated content within the various blocks in phases II & III (Basic and Clinical phases). In each block, the epidemiology, prevention of control measures, social aspects and economic aspects are all integrated within the problems and the activities of the block like student seminars, field visits and interactive lectures.

The third component is conducted during the clinical rotation phase. Students will have a longitudinal family medicine attachment at primary health care centers. This attachment will give them a close look to the problems of the local community in addition to the customs, believes and behaviors related to health among the local community.

**Conclusions**

The paper describes the implementation of community health curriculum in a Community Oriented, Integrated, PBL-based Curriculum. It shows that most of community health practice topics can be integrated within the curriculum. Evaluation of the outcomes will follow completing the three components.