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THE 8 PRINCIPLES OF LEARNING IN THE IMU

Victor Lim, Allan Pau Kah Heng, Winnie Chee, Chu Wan Loy, Er Hui Meng, Vishna Devi Nadarajah and Muneer Gohar Babar

9.1 Introduction

In order to nurture the desired attributes in our graduates, the IMU needs to provide an environment that is conducive to the development of these traits and values. The 8 Principles of Learning in the IMU are adapted from a document developed by Richard James and Gabrielle Baldwin for the University of Melbourne in 2002 and subsequently revised in 2007 (University of Melbourne, 2007).

9.2 An Environment of Scholarship and Intellectual Stimulation

Scholarship can be defined as academic study or achievement of learning at a high level. Scholarship embodies activities that result in discovery, integration, application and teaching within an environment that accepts nothing less than the highest standards of professionalism and ethics.

The challenge would be to create an environment that would entice the whole IMU community to desire for, and work passionately towards this. We are confident that this can be done as that foundation has been carefully laid for more than two decades. The IMU will need to identify and empower leaders in the scholarly activities of discovery, integration, application and teaching. These leaders in turn would interact within and between these areas in the spirit and substance of collegiality that is so vital for intellectual stimulation and advancement. This interaction must also involve the community at large, the ultimate aim being for the IMU to be a credible source of knowledge, advice, consultancy, advocacy and above all, relevance.

Scholarly activity is integral to effective student teaching / learning activities and is a component of all faculty work. The IMU will facilitate faculty engagement in scholarly activity though provision of technical and logistic expertise,

provision of resources and a safe environment to carry out research, and collaborate with external agencies. The University will promote innovation and avoid factors that may hinder exercising of professional responsibilities by ensuring that such a model of management does not contribute to blunting of scholarly activity. It is the responsibility of the University to enable faculty engagement in scholarly activity.

The lack of adequate resources and support (e.g. faculty expertise, research facilities, inability to support effective and efficient research management and faculty time), as well as institutional ignorance of the central role of scholarly activity, blocks faculty from fully exercising their professional responsibilities and makes it difficult to achieve teaching excellence.

The IMU strives to ensure that all the academic programmes offered are of the highest academic standard which can be benchmarked internationally. In the outcome domains generic to all courses the emphasis is on application of knowledge and not merely acquisition of knowledge. However there is little being done to link the research findings of faculty in the IMU to the teaching and learning of the students. All programmes also offer a research component that helps to engender curiosity and to inculcate scientific thinking and decision making based on evidence.

Faculty need to engage with students and to ask questions or set assignments that challenges the student to think out of the box and break all barriers of preconceived notions; to be able to make connections which were not previously apparent; to have the "aha" moment when insight is gained.

9.3 The Emphasis on Enquiry, Research, Knowledge Transfer and Evidence-based Practice

Research involves answering a question in a scientific manner based on evidence. It involves forming hypotheses and testing them. This emphasis on research in the IMU should be beyond the formal application for research grants and undertaking research projects. Research or a research approach should be something on a routine basis in learning and in solving problems in the work place.

Decisions should be made based on evidence whether it is a clinical decision; a decision to introduce a new mode of delivery of learning or a decision to start a new programme. There should be a research culture in the IMU and it involves everybody not just students and faculty.

A culture of inquiry needs to be enhanced in all activities in the IMU if it is to be a learning organisation. In order to foster deep and transparent critical inquiry, we need to build a conducive environment (Reid A, 2004) where:
a. discussion and debate is encouraged, involving the widest range of voices possible
b. certainty and dogmatism is rejected
c. there is a recognition that there is no one right way to approach complex educational issues
d. interactions are based on trust, and where people feel free to talk about difficulties and concerns in their teaching in a safe and non-judgemental environment.
e. avenues are provided for all participants to have a voice, and not allow the strongest voices to dominate
f. inquiry is modelled at all layers of the system
g. everyone in the organisation demonstrates behaviour that is respectful, tolerant and civil

The following values and/or characteristics need to be inculcated in a culture of inquiry:

a. curiosity
b. a willingness to linger with questions or perseverance
c. a commitment to constructing knowledge with others through dialogue, disagreement and challenge, and attentive observation.

A culture of inquiry should be internalised into every faculty, student and corporate staff member of the organisation. This can be achieved through effective and innovative teaching and learning activities, and active discussion in seminars and workshops.

Teachers often benefit from discourses with students, especially postgraduate students in the formal and informal settings. In their quest for knowledge, such students often read topics on specialised areas beyond that of their teachers.

Faculty and corporate staff must not function in isolation but must deliberate to stimulate, challenge and generate ideas as befits a community of scholars.

9.4 A Dynamic, Exciting Social Context, with a Clear Focus on Service at the Interface with the Community

Learning cannot be in isolation. All learning must be socially relevant with an outcome that would eventually be of benefit to society.

UNESCO identifies 4 pillars of education (International Commission on Education for the 21st Century, 1996) namely:
• Learning to know
• Learning to do
• Learning to be
• Learning to live together

All 4 pillars must be addressed in the IMU. Learning cannot be confined to the classroom and only from what the faculty is capable of supplying. There must be opportunities for students to build on knowledge and experience that they bring from their families and communities. Learning should in an environment that is authentic and contextual. If our graduates are to be leaders and change agents in the community their learning must emphasise their connection to society and the environment.

The IMU has many opportunities to make learning dynamic and exciting in a socially relevant context as recent literature suggests that biosocial medicine/health may be an effective and contextual way to encourage learning through enquiry and research by participating in community service projects. This is with the aim of graduating health care practitioners that are able to recognise and respond to the social factors that are at the root of patients' risk for disease, response to the disease and experience with disease.

Biosocial medicine or healthcare requires reflective knowledge acquisition that merges training in the "bio" (which includes basic science, epidemiology, and clinical knowledge) with training in the "social" (which includes economics, culture, history, politics, and social structure). Teaching learning activities related to biosocial medicine

involve working to improve health through building community partnerships. At the IMU some successful examples are projects in IMU Cares where opportunities are present for utilising narrative medicine in patient care, participating in social movements and be agents and advocates of change, practising community-based participatory action research, engaging in critical pedagogy and collaborating in other activities to cultivate and respond to an understanding of the social determinants of health.

9.5 An International, Culturally Diverse, Social and Learning Environment That will Foster a Forward Looking and Open Outlook

Learning to be and learning to live together are the UNESCO's 3rd and 4th pillars of education. An education in the IMU cannot merely be the acquisition of knowledge and skills. In order that our graduates fulfil their roles as responsible citizens who serve society through leadership and as change agents, it is important that our students' journey is as much a journey in character building as it is in getting prepared for the workplace.

It is our duty to inculcate the necessary values among our students, to strengthen their self-esteem, to learn tolerance and respect for others and to learn to be responsible citizens in the multi-ethnic and multi-religious milieu that is Malaysia. These values should also include the values which we want them to have as future health professionals taking into account the expectations of patients and the health needs of society.

The first task would be to establish the core values that we want to inculcate in our students, be very clear what they mean and make them explicit to all students and staff.

The next would be to establish an environment that supports and encourages these values. The roles and

behaviours of staff and students should be clearly defined. Role modelling is of utmost importance. If we want our students to respect others faculty need to treat students with respect. Similarly if we want respect and courtesy to be a way of life in the IMU, heads need to treat their subordinates accordingly. This is part and parcel of professional behaviour.

These values would have to be incorporated into all policies of the IMU as well as the academic programmes; not so much in the content but the manner in which all learning and assessment activities are delivered or conducted.

It is important for our staff and students to recognise and appreciate the roles played by their colleagues in the other health professions. This is because health care is now delivered by teams and not by individuals. Inter-professional learning should be integral across all programmes.

Faculty together with the Student Services Department play an important role in facilitating and guiding extracurricular activities; to promote inclusiveness and discourage exclusivity. Activities should be organised to promote learning and understanding of the different cultures and religions.

9.6 A Clear Emphasis and Support for Individual Development: Individualisation, Differentiation and Personalisation

Ron Harden established the FAIR principle of excellent teaching (Harden & Laidlaw, 2013) – Feedback, Activity, Individualisation and Relevance. To be a good teacher one must practise the FAIR principle.

Individualisation is also sometimes used interchangeably with Personalisation and Differentiation but there are some important differences.

Individualisation refers to instruction that is paced to the learning needs of different learners. Learning goals are the same for all students, but students can progress through the material at different speeds according to their learning capabilities and needs. For example, students might take longer to progress through a given topic, skip topics that cover information they already know, or repeat topics they need more help on. In the IMU the system of referred and repeat examinations allows students to take a longer than prescribed time to achieve their learning outcomes. Currently there are no mechanisms in the IMU to allow students to finish their course earlier than the prescribed time. The Ministry of Education regulations also do not allow for this as minimum course durations are defined and strictly monitored.

Differentiation refers to instruction that is tailored to the learning preferences of different learners. All students do not learn in the same manner. Learning goals are the same for all students, but the method or approach of instruction varies according to the preferences of each student or what research has found works best for students like them. In the IMU differentiation is not practised to any significant extent although students who do not like to learn from face-to-face activities (e.g. lectures, case-based learning) are not required to attend them as the course materials are also available on the e-portal and interactions can be conducted on-line (discussion fora, Wiz-IQ, mobile Apps, Wikis, etc).

Personalisation refers to instruction that is paced to learning needs, tailored to learning preferences, and tailored to the specific interests of different learners. In an environment that is fully personalised, the learning objectives and content as well as the method and pace may all vary (so personalisation encompasses differentiation and individualisation). Again personalisation is not practised in IMU to any significant degree except in electives and selectives where the student can pursue a course of study

of his or her interest. In the medical programme students interested in research can opt for an intercalated Bachelor of Medical Science (BMed Sci) programme but thus far very few students have chosen this pathway solely due to an interest in research.

Personalisation is perhaps more appropriate in the IMU postgraduate taught courses where the candidate can select from a menu of courses and there is flexibility in the time allowed to complete the programme.

There are strategies that can help students develop further or specifically based on their areas of interest by giving different pathways midway through or after the academic programme. For example there is the Student as a Teacher pathway (Song et al., 2014; Erlich & Shaughnessy, 2014) as illustrated by our peer teaching policy in medicine and dentistry.

Similarly there are programmes with student options to do research (e.g. BMed Sci in IMU) or community work in a structured manner, sometimes resulting in additional qualifications or publications. The IMU can consider whether these options are available within each programme, and if it can be expanded to include entrepreneurship, business management and the humanities. Currently some programmes have these as modules, but not as a specific pathway to excel in midway or after the course.

Learning and lesson plans are already in place with detailed study guides available to all students, and students are able to plan their learning experience based on this.

For students struggling to balance or create their learning experience, the support structure for them in the IMU is currently lacking.

9.7 Academic Expectations and Standards Clearly Set

Students must know the rules of assessments and what it takes to pass. Assessments must be transparent, just and fair and must also be seen to be so. There are detailed exam regulations in the student handbooks and briefings are also conducted by semester coordinators or deans. However we need to ensure that the student knows and understands these rules and regulations through repeated reminders and briefings. The IMU adopts outcome-based and competency-based curricula; thus the expected outcomes and competencies must be clearly defined and explained to students.

Blueprinting of assessment is essential to ensure that all major outcome domains are adequately assessed.

The level of difficulty of the assessment must be appropriate to the phase in the programme and standard setting using an acceptable method to ensure that a fair passing mark is set.

The IMU practises criterion referencing and faculty need to be conscious of this and not apply norm referencing during their evaluation of students' performance. The criteria for passing should be defined and any student who meets or exceeds this criteria will be deemed to have passed. If every student in the cohort meets the criteria, the entire cohort passes.

Similarly the standards for professional and ethical behaviour must also be explicit and steps are taken to ensure that the students understand them. The manner by which students will be assessed must also be clearly defined and made known to the students. The sanctions for breaching these codes of behaviour must also be clearly spelt out and this will include being referred to the Student's Fitness to Practice Panel.

Similar standards of behaviour for staff must be established and made explicit, and as in the case of students, the sanctions for breaching the code of behaviour clearly defined.

9.8 A Clear Emphasis on Quality, Promoting Innovations, Experimentations, Evaluations, Assessment and Feedback

In the IMU quality assurance processes in education have been taken very seriously since its establishment. This is not unexpected since we started with a credit transfer programme in medicine and the partner medical schools have to be reassured of the quality of transferring students. Over the years the quality system has expanded, more data is collected and analysed routinely, more quality targets are set and more accreditation bodies and teams established, both internal and external; local and international.

There are however several gaps in the current quality assurance system:

i) The exercises are primarily focussed on inputs and processes and there has been very few attempts to look at outcome, in particular outcomes in the longer term and behavioural outcomes.

ii) Our own assessments are also quality assurance processes which tell us if the students have achieved their learning outcomes and while we have put in some measures to ensure the process of assessment is valid and reliable, we have not used the results of the assessments in any major way. The results of assessment have many uses for quality improvement:

    a. If feedback is adequate, it informs the learner and fosters learning.

    b. It drives curricular changes and assures that curricular goals are met.

    c. For the institution it drives self-assessment, faculty development and provides data for education research.

To close this gap; the IMU requires software to make detailed analyses of examination results. Manual analysis is too tedious, laborious and slow. With the appropriate software, students can receive an individualised report on his or her performance; often immediately after the examination. Different reports can be generated for specific use by the programme, the school and the institution.

Closing the loop is still a challenge and in general the quality data has not been instrumental in driving change and innovations.

We need to change the focus and mind-set of faculty to adopt a Total Quality Management approach rather than merely meeting targets that have been predetermined. This approach in making small incremental improvements does not drive innovations. It would be more appropriate for programmes to aim for large significant and impactful improvements rather than improvements in small steps.

Feedback is information given to the learner aimed at modifying or changing behaviour for more effective learning. Feedback can

1. Clarify learning goals

2. Reinforce good performance and motivate the learner

3. Help learners recognise their deficiencies and inform future learning

It has been shown that effective feedback leads to higher academic performance. (Hattie & Timperley, 2007) However the process of giving effective feedback and using received feedback for self-improvement is fraught with tensions. Karen Mann recognises 3 sources of tension in the feedback process (Mann *et al.*, 2011):

1. Tensions within self – desiring feedback but fearing disconfirming information; recognise the need for feedback but struggle to use it because of incongruence with self-appraisal

2. Tensions between people – wanting to ask others for feedback but fear of showing incompetence and deficiencies; wanting feedback but do not trust the feedback; worry about damaging the relationship with honest feedback

3. Tensions in the learning environment - incongruence between the stated curriculum and the curriculum in action; perception that feedback is a meaningless game done to please others

To resolve these tensions Mann has proposed that:

1. the individual needs to recognise the emotional aspect of receiving feedback and the inherent difficulty in reconciling self-appraisal and contradictory feedback

2. teacher-learner and peer-peer relationships need to be respectful and supportive; feedback is informed and specific to the learner's needs, feedback should seek to enable learning

3. a climate of mutual and collective learning is supported; appropriate modelling of giving and receiving feedback; benefits of self-assessment made explicit to teachers and learners

For feedback to be effective in the IMU, these tensions need to be recognised and the necessary training is given to both students and teachers. We also need to create an environment that embodies the values of professionalism and is supportive of learning.

The other aspect of quality is that it should be a competency for all health care professionals. All students need to acquire a basic understanding in quality and to have the opportunity to participate actively in a quality assurance project that is relevant to their future practice.
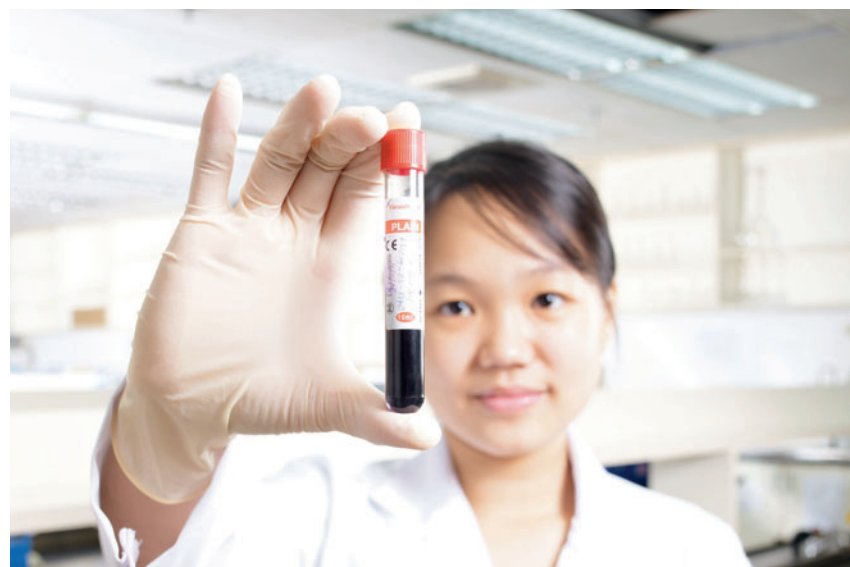
9.9 A Socially Relevant Curriculum

Social relevance in health professions education may be defined 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 organisations, health professionals and the public.

The process of curriculum planning is also referred to as demand-side planning where the curriculum is driven by the needs of the community based on discussion and feedback from all relevant stakeholders. This is opposed to the supply-side curriculum planning where the school decides on the curriculum based on the opinions of faculty and the resources available in the school.

An association with excellence should be reserved for educational institutions which can verify that their actions make a difference to people's well-being. Health professions graduates should possess all of the competencies desirable to improve the health of individuals and society, and must also use them in their professional practice.

The World Health Organisation has enunciated 4 principles that should underpin the type of health care that people have a right to expect, from both an individual and a collective standpoint (Boelen & Woollard, 2009): quality, equity, relevance and effectiveness. Therefore, social, economic, cultural and environmental determinants of health must guide the strategic development of an educational institution, including its curriculum.

To measure social relevance in health professions education the following questions need to be answered:

1. Is the curriculum relevant to the health concerns of the community?

2. Does the curriculum emphasise on quality of care in relation to safety and effectiveness, and evidence-based practice?

3. Does the curriculum emphasise health needs beyond the normative in recognition of perceived and social needs to ensure that health outcomes are equitably distributed?

The operational implications for the IMU to ensure that all our curricula are and remain socially relevant are:

1. Curriculum review and audit should be underpinned by the 4 principles of social relevance.

2. Regular curriculum reviews to be conducted as the health needs of the community changes with time.

3. Relevant stakeholders should be part of the curriculum review and audit processes.

4. Extensive consultation to engage the community should be practised.

5. Assessment of the curriculum impact on the community should be carried out.

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