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Teaching & Learning Bulletin

volume sixteen 2011

Enriching Campus Learning Experiences



UNIVERSITI MALAYSIA SARAWAK

UNIMAS

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Centre for Applied Learning & Multimedia

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Published By:
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Published by
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Universiti Malaysia Sarawak,
94300 Kota Samarahan, Sarawak.
Tel: +60 82 583680 Fax: +60 82 583676

ISSN 1823-2396

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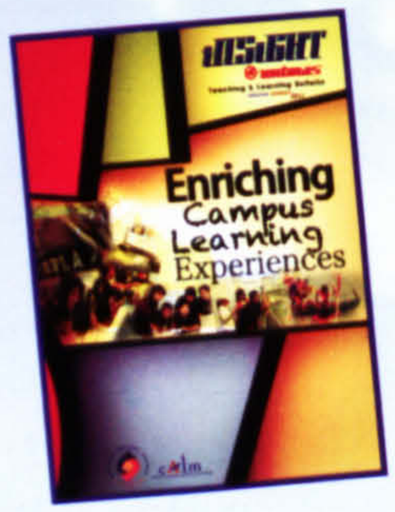
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Disclaimer: The ideas expressed on the articles are solely the opinions of the author(s) and do not necessarily represent the opinions of Universiti Malaysia Sarawak.

Welcome to INSIGHT.



I wish to welcome all readers to this volume of INSIGHT. Amidst our busy schedule on campus, especially with the return of our students to the new academic year 2011/2012, we are all pleased to welcome both our new students as well as our new staff members.

As we can notice, quite clearly, the number of students has increased tremendously to 11,260 this semester (as of October 2011). With the increase in students there is also an apparent increase in students' activities on campus. Most of these activities maybe academic in nature but non-academic activities are of no less significance or importance.

This volume of INSIGHT wishes to focus on aspects of enhancing campus learning experiences. There are six articles included in this theme. The first article challenges academics to contribute their experience and skills towards creating a lively academic environment. The second, third and fourth discuss about issues and concerns relating to learning and teaching, specifically efforts to improve learning experiences. Article five presents an analysis on historical facts which seem to contribute to students' inability to benefit from university teaching and learning culture. The last article specifically details out how UNIMAS online learning enriches academics' and students' experiences on campus.

The theme for the upcoming issue will be Student Centred Learning (SCL). We welcome our academic staff to contribute related articles. A variety of approaches fit beneath the umbrella of SCL as adopted in UNIMAS including problem-based learning (PBL), problem oriented project based learning (POPBL), case studies and modular approach to delivery. Articles may focus on, but not limited to, the examples of the use of these SCL approaches; strategies and experiences of engaging students in SCL environments; methods of assessment for SCL; or findings of research studies related to SCL.

Thank you.
Assoc. Prof. Dr. Gabriel Tonga Noweg
Dean, CALM

Introductory Notes

Enriching campus learning experiences for Lecturers



Dr. Ting Su Hie
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This theme brings to mind images of a campus with a vibrant academic environment for students. My point of contention is this – if lecturers themselves do not have enriching learning experiences on a daily basis, how are they able to make the campus learning enriching for their students? My attention is on the expertise area because lecturers have a direct influence on students through teaching.

Take a look at this scenario. Lecturer A teaches a subject that he/she has studied broadly as an undergraduate, and a little more concentrated specifically at postgraduate level. This is a subject that he/she knows better than any other areas or possibly any other lecturers in the faculty. He/She teaches from his/her background knowledge and references on the subject but there is no personal interest to delve into the developments or applications in that field. It is a subject matter merely taught for bread and butter.

On the other hand, Lecturer B has a personal interest in the same subject matter, and takes personal initiative to go beyond the dictates of teaching. He/She reads general interest magazines like National Geographic or related websites to find out about current issues and trends of interest. Lecturer B talks about the subject matter with friends and over meals with colleagues, often with passion. The interest may reach the stage when he/she pursues research on the subject matter, and over time, develops expertise in the area or the teaching of the expertise area (or Scholarship of Teaching and Learning, the term used by the Ministry of Higher Education). When Lecturer B teaches his/her students, the subject matter is presented as one which is alive and growing in the most electrifying manner.

The core knowledge covered by Lecturer A and Lecturer B is the same but it leaves very little to the imagination as to which lecturer would inspire further academic inquiry among their students in the form of a final year project or postgraduate pursuit. Undoubtedly, a lecturer who is personally interested in his/her expertise area is better able to enrich students' learning than one who is merely teaching the subject matter out of duty.

I imagine a campus environment which fuels the enthusiasm of lecturers in their pursuit of knowledge in their expertise area to be like this. There are colleagues who can be sparring partners to debate the latest knowledge in the area. The debates stay professional and do

not develop into personal feuds. There are colleagues to share achievements such as publications in the field without igniting envy. The academic community celebrates these achievements without making comparison with other yardsticks. There is support for pursuit of the latest developments in the field through high impact research grants, sponsorship for attending conferences and full access to a wide range of journals and resources. There is even support for publications in the form of payment of page charges, giving of incentives, and recognition in university bulletin and promotions. The official seal of approval is important because no matter how strong the internal drive may be, the drive may slacken over time.

A university which provides the conditions for enriching learning experiences for lecturers stands to gain on all counts. Students, by word-of-mouth, spread acclaim of the university that is their alma mater far and wide. Research shows that word-of-mouth recommendation is more effective than traditional advertising (Dichter, 2000; Richins, 1983; Trusov, Bucklin, & Pauwels, 2009) which may include print and online advertisement and road shows. Publications and citations of the research findings place the university in the limelight and attract research grants. The expertise of lecturers are recognised when they are invited to give keynote addresses at conferences and to sit on committees in their expertise area. Lecturers who are passionate and competent in their expertise areas are sought after for consultancy services in the industry. It is through such accolades that the university makes a name for itself. The community at large will want to be affiliated with such a renowned university – including good students and staff. A university which invests in nurturing the learning of the lecturers in their expertise area is, in fact, enriching the learning experiences of the students.



Lecturer A's book shelves with only student work



Lecturer B's book shelves with various resources for gaining extra knowledge to inspire students.

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Addressing Affective Learning: Lessons from the 'WOW' sessions



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A chance encounter with a *You Tube* video of Nick Vujicic started it all. Nick Vujicic showed that no physical activity is impossible for him, despite having been born with no arms and legs. His ability to overcome his physical limitation was indeed fascinating but it was his positive outlook towards life, his message of hope, of overcoming failure, of continuous perseverance that left a deep and lasting impression (see Figure 1). As an educator, inspirational stories such as Nick's serve as a great instructional aid for learning.

Although advices and encouragement are not part of the official curriculum – not explicitly stated in the course outlines as among the objectives to be achieved; as the ones entrusted to educate the learners on campus, it is strongly believed that university educators also have the responsibility to inspire their learners and to strengthen their resilience so that they can cognitively and affectively be prepared to overcome the challenges and demands of the real world. Driven by these beliefs, the **Words of Wisdom (WOW)** session was introduced to the learners of two courses at the Faculty of Cognitive Sciences and Human Development (FCSHD). The two courses were *KMK 1113 Cognition and Learning* and *KMF 1014 Introduction to Cognitive Science*. The WOW session became the prelude to all the face-to-face lectures carried out throughout Semester 2, 2010/2011. This article describes the development of the WOW sessions and the lessons which both the learners and the course instructor have learned from them.

The WOW session was initially planned to be carried out by the course instructor herself throughout the entire semester. Its first session, carried out on the first day of lecture took around ten minutes of the beginning lecture hour. Sigh of disbeliefs could be heard from the learners as they watched the *You Tube* video on Nick Vujicic. At the end of the video, the learners were invited to share their personal experiences with failure and adversity and prompted to elaborate on how they dealt or coped with their respective unfortunate circumstances. It was during the sharing of experiences moment that the realization hit – WOW should be a sharing session presented ***by*** the learners ***for*** the learners. Not only would it give opportunity for them to inspire each other, the session could also become a practice ground to develop their oral presentation skills as well as build their confidence in public speaking.

Later in the week, once the name lists of all registered learners were obtained and the number

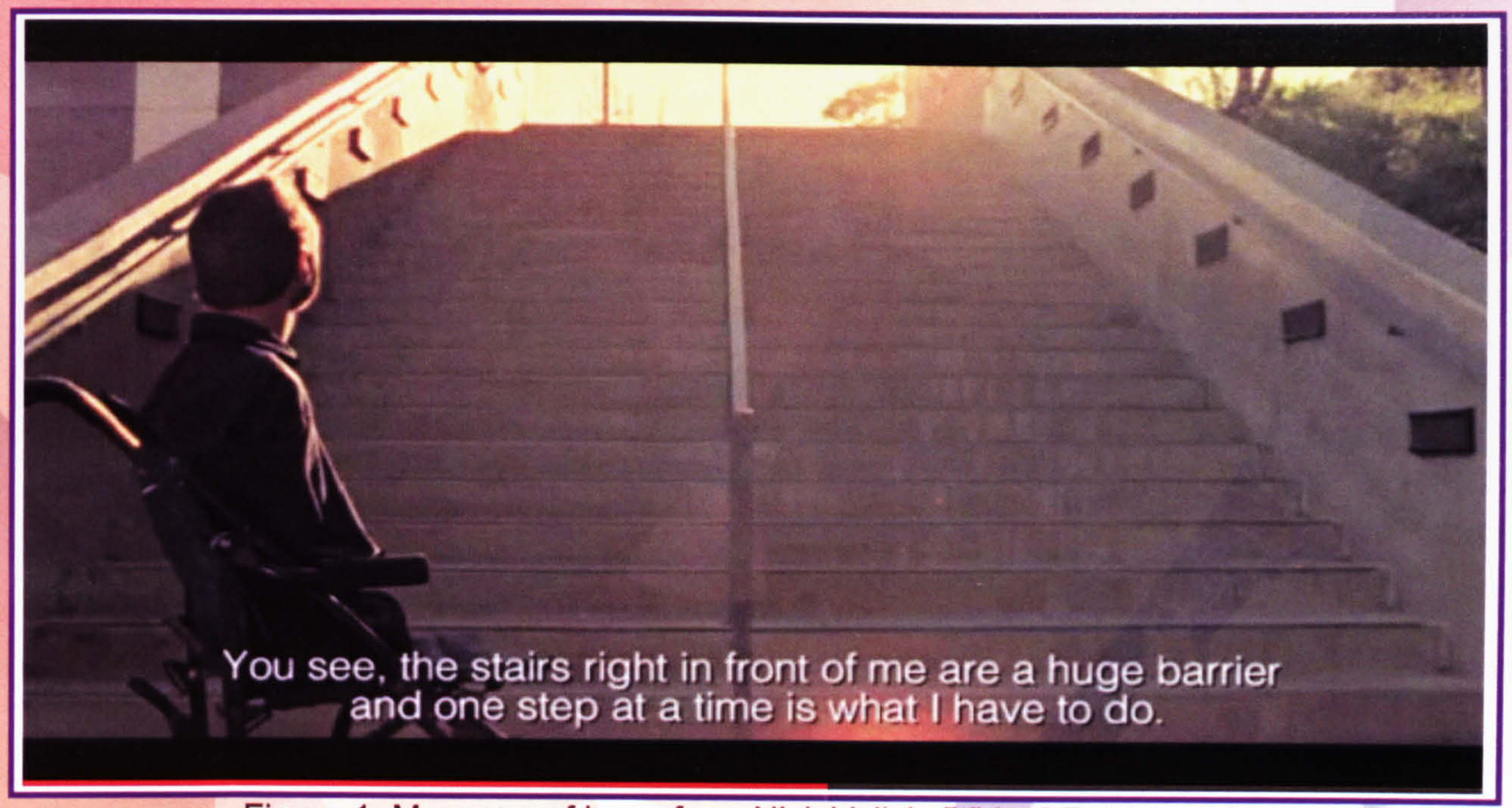


Figure 1. Message of hope from Nick Vujicic [Video] Retrieved from http://www.youtube.com/watch?v=0DcqPzO26os

of lecture days and dates had been finalised, the WOW slots for all learners were identified. Each learner was allocated at least 5 minutes for their WOW presentation. The number of WOW presentations per lecture date for both courses had to be adjusted since they have different number of student enrolment. There were 58 learners in *KMK 1113 Cognition and Learning*, and 98 in *KMF 1014 Introduction to Cognitive Science*. The manner in which the WOW session would be conducted was then explained to the learners and announcements were made to prepare them for their scheduled WOW slots. Surprisingly, there was no objection from the learners. The fact that the WOW session would not be part of their course assessment was not even brought up for discussion. It was perhaps because the idea of having a WOW session at the beginning of class lecture was still a novelty that they were willing to give it a try.

The first few sessions consisted mainly of inspirational quotes being read aloud from pieces of paper which the learners have prepared. The underlying messages of these quotes range from the importance of self belief to the need to face fear in lives. There was no restriction in terms of WOW topic selection so long as the presentation focused on inspirational messages. Those who thought that reading their WOW quotes out loud were sufficient soon learnt that they must elaborate on the message so that their classmates could understand and relate to them. By the end of the semester, the WOW sessions had featured motivational videos, a number of them were the infamous Petronas videos; video clips of songs with inspirational lyrics, and at times the class audience even joined in the sing along; learners' funny stories about themselves when they were growing up, poems, cartoons, and learners' life stories presented through their personal photos. There was never a dull moment during the WOW sessions. Tears were shed when the WOW presentations focused on parents' sacrifices to provide for their children's education, laughter erupted when funny moments were shared, and loud cheers were given when a number of learners who were known to be very shy in class managed to overcome their shyness when delivering their WOW presentations. At the end of each presentation, applause was given by the class audience to show appreciation to their course mates' WOW effort. Snapshots of the WOW sessions are presented in Figures 2 and 3 below.



Figure 2. WOW session featuring a video clip of a song with inspirational lyrics



Figure 3. WOW session featuring a poem about a mother's sacrifices for her children

At the end of the semester, an online forum discussion was initiated to find out the learners' view about the WOW session which was carried out as part of their course implementation. Specific questions asked were 'Does it help?' 'Is it taking up too much of lecture time?' and 'Should it be continued in future classes?' 107 learners participated in the forum discussion; with 42 of them from the *KMK 1113 Cognition and Learning* course (72.4% from total learner enrolment) and the remaining 65 from the *KMF 1014 Introduction to Cognitive Science* course (70% from total learner enrolment).

All the feedback received indicated that the WOW session had been a useful and meaningful learning experience to the learners. Learners felt that they were more motivated and spirited after listening to the WOW presentations. They also felt that the sessions had served as a continuous reminder for them about why they were on campus in the first place and what they needed to do to stay focused in their studies. Although it took up a little bit of their class time, the WOW session was deemed relevant and necessary, and should be continued in future classes. Some of the comments received are:

Sample comments received from learners of the KMK1113 Cognition and Learning course:



Motivation Time

by NOOR AZREEN BINTI ISHAK - Thursday, 14 April 2011, 11:47 AM

Having Word of Wisdom before the class started is a very good idea. This session help me a lot and I feel very motivate to start the class. Besides, the various presentations are very interesting and have their own lesson that can benefit to all of us. In my opinion, this session should be continued in the future. In addition, besides to give motivation to friends, it also help to increase self-confidence to stand and speak in front of the class. Congratulation to Dr. Norazila for the awesome idea to make Word of Wisdom session. " The Best Motivator is Yourself " ^_^

Edit | Delete | Reply



a good session...

by NORSYAFIKAH BINTI JAMAIN BOHRI - Wednesday, 20 April 2011, 12:13 PM

this session is so interesting. it helps students to motivate themselves before class started. this session always reminds students that are a bit engrossed with non-academic things to think back the real purpose of why they are in UNIMAS.I really hope, dr. can continue this session since it brings such a lot of benefits. who knows this can be a good medium of practice to those who are interested to be a freelance motivator in future...

Final words from me, the best motivator is yourself. you are the one who move yourself. if others try to motivate you but you didn't change yourself,it is useless.

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The 'warm-up' session

by MAUREEN JOY P KINSUNG - Wednesday, 13 April 2011, 12:56 PM

Early this semester, Dr. Azila have introduced the new session in the class, which is the Word of Wisdom. In the beginning, it is quite plain. However, throughout the semester, it slowly bloom into a very interesting part of the class where the students become more creative and brave enough to share their thoughts. For me, personally, I like this session because it did give me motivation for study and inspired me so much. Besides, since the class session was on 10am, so it is like a refresher to the class to wake-up(some felt sleepy during 8am class). The students were so creative during presenting their videos, slides, stories and the songs. This is good to chill up the others. I still remember Baby (Lau Chi Sing) story where he succeed in make the others burst their tears out . Good job for him.

On the other hand, this session become a platform for the students to improve their presentation skills with a more relaxing style without making them feel nervous since they representing their own thoughts.

So, as the conclusion, I recommend to Dr. Azila to keep on doing this session since it give more benefits to others.

Thanks, Dr.

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Sample comments received from learners of the KMK1014 Introduction to Cognitive Science course:

words of wisdom
by Nor Amalina Bt Mohd Kamsani - Saturday, 9 April 2011, 09:38 PM

Assalammualaikun Dr. Norazila...

Pada pendapat saya, aktiviti memberi 'Words of Wisdom' oleh setiap pelajar dipermulaan kelas adalah baik. Ini kerana ia banyak memberi kesan kepada diri saya. Setiap ayat yang di utarakan oleh rakan-rakan mempunyai makna dan pengajaran yang berlainan yang dapat saya jadikan sebagai panduan hidup. Selain itu, ia juga dapat memberi semangat kepada saya untuk lebih berusaha di dalam pelajaran.

Walaupun ia mengambil sedikit waktu pembelajaran tetapi tidak bagi saya kerana aktiviti ini juga merupakan salah satu pembelajaran. Jika ia di hayati setiap ayat mempunyai banyak maksud yang tersirat yang boleh kita gunakan sebagai panduan. Jadi, saya berharap agar Dr. dapat meneruskan aktiviti ini di semester akan datang.

Akhir sekali, saya ingin berterima kasih kepada Dr. kerana telah mencurahkan ilmu yang tidak terhingga kepada saya dan rakan-rakan. Segala jasa baik Dr. akan saya balas dengan kejayaan saya nanti. Insyaallah.

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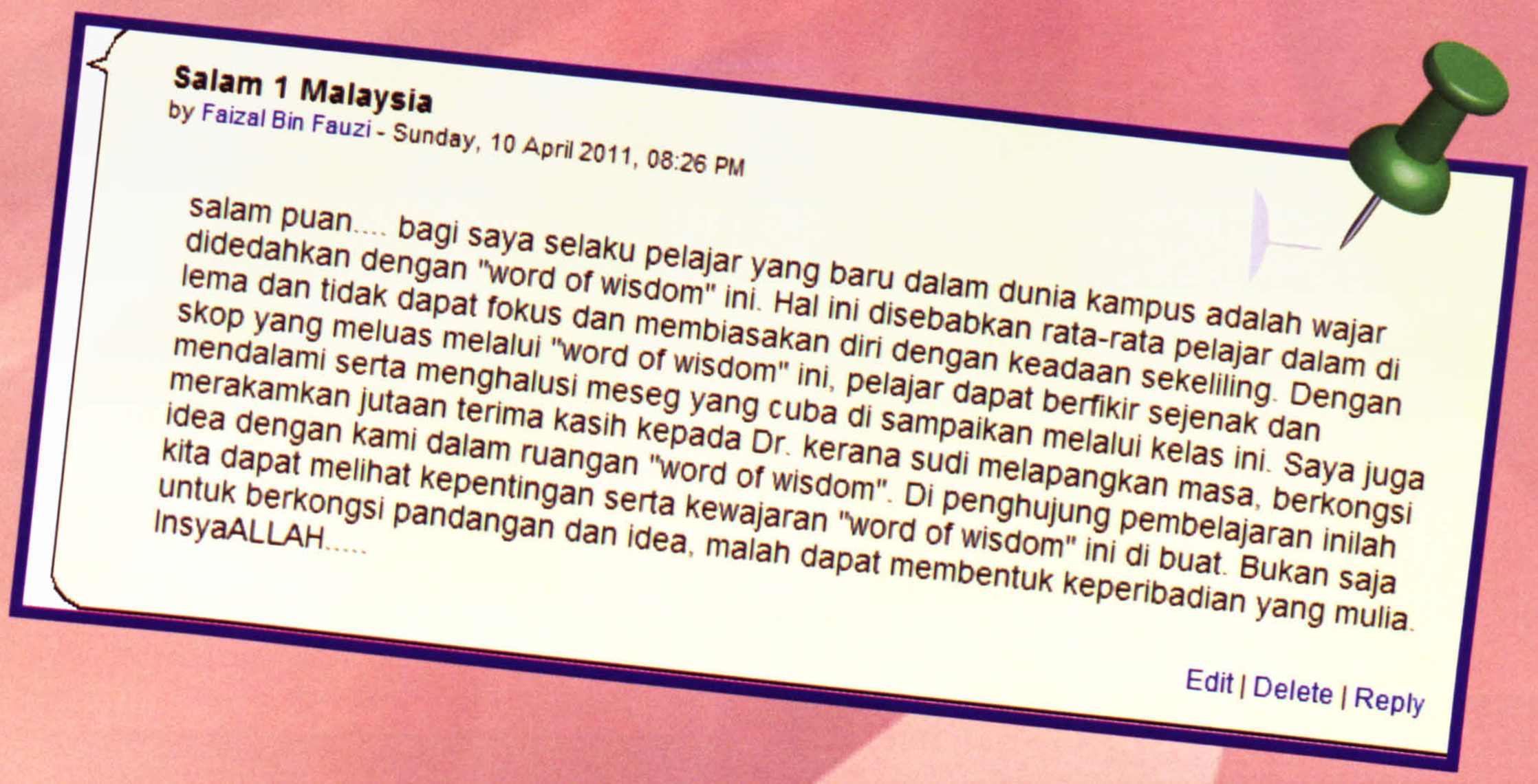
my response ^_^
by NORFAHIDA BINTI MOHD DAUD - Friday, 15 April 2011, 05:00 AM

assalamualaikum....

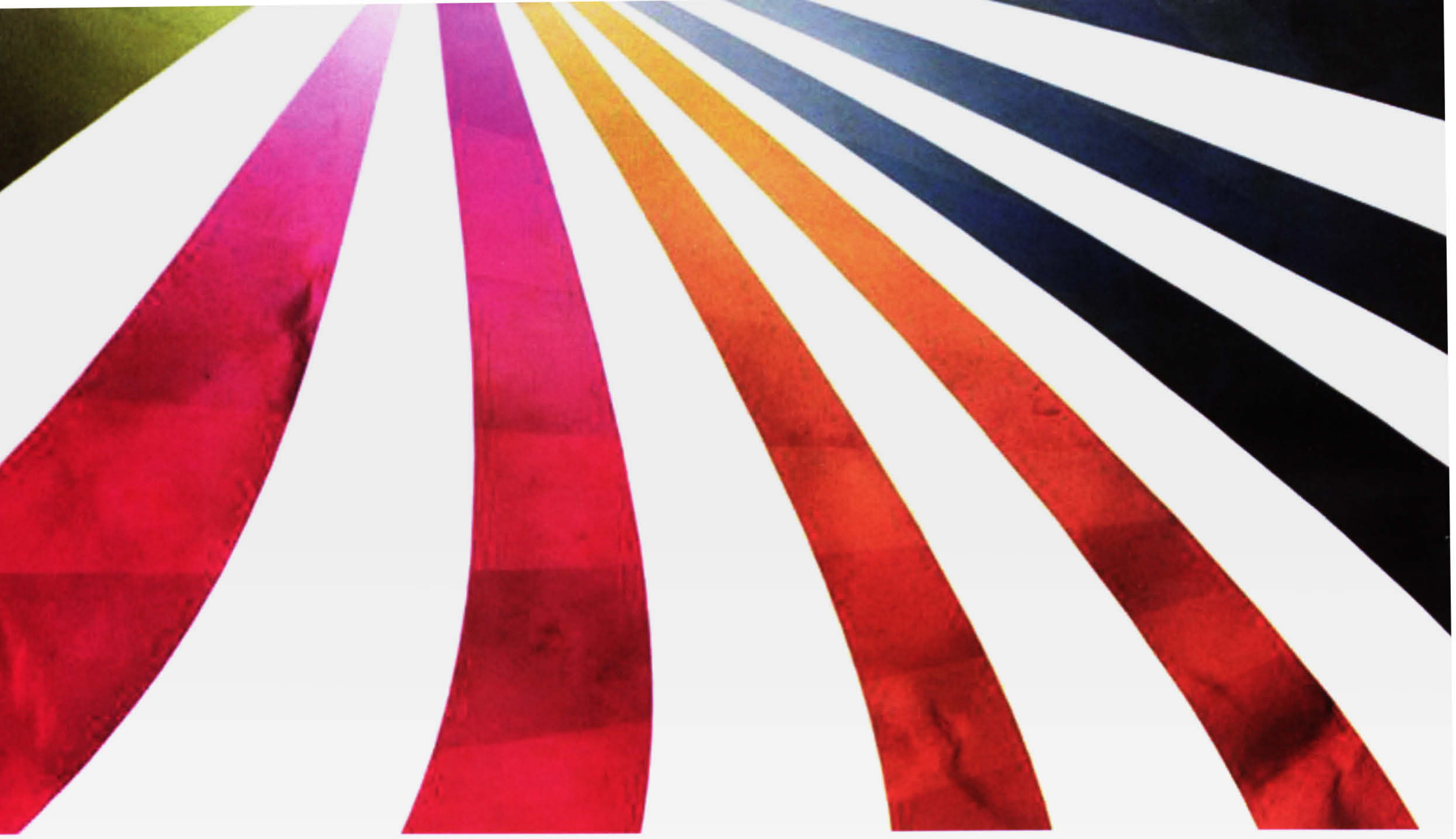
Pada pendapat saya, word of wisdom yang dilakukan setip pagi sebelum bermulanya kelas ini sangat membantu dan memberi manfaat kepada saya kerana ia dapat menaikkan semangat saya sebelum sesi pembelajaran bermula. Disamping itu, ia juga membantu saya memotivasikan diri saya tentang tujuan utama memasuki Unimas iaitu untuk berjaya kerana kadang-kadang kita akan terleka. Dengan adanya kata-kata semangat ini dapat membantu kita dalam mometivasikan diri dan meneruskan perjuangan sebagai seorang pelajar.

la tidak mengambil masa yang lama dan juga tidak menggangu masa pembelajaran di kelas, malah ia sangat menarik. Saya cadangkan word of wisdom ini perlu diteruskan di dalam kelas yang seterusnya bagi membantu rakan-rakan seperjuangan yang lain. Saya sangat suka dan tertarik dengan cara pendekatan Dr. dalam menyampaikan kuliah kerana ia sangat menarik dan berbeza daripada pensyarah-pensyarah lain dan pejelasan yang lebih terperinci.

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From the positive comments obtained, it is apparent that the learners have benefited from the WOW session introduced. Although the WOW messages were not directly related to the learning units of the course curriculum, the values and ideas which they have instilled are equally important in developing the learners' affective characteristics. The course instructor also had learned a lot of the WOW experience. The WOW session reaffirms her beliefs that the learners' campus learning experience would become more memorable and meaningful only when both their cognitive and affective development became the focus. To be inspired and motivated, learners do not necessarily have to seek for Nick Vujicic or others just like him on *You Tube* or other media channels. As what some of her learners have indicated, their best motivator is themselves, and by getting them to motivate others through their message of hope, of overcoming failure, of continuous perseverance, it is hoped that they would become more resilient and determined to make the most out of their campus learning experience.



Historical perspective

Problem based learning (PBL) is an instructional method that has the ability to train students to become active, independent and lifelong learners. This instructional method inculcates a systematic attempt to apply research of cognitive psychology to educational practice (Dolmans & Schmidt, 1996). The accelerated advancement in technology, changes in demographics, environmental factors and lifestyle as well as the ever expanding frontier of knowledge have had a profound impact on our present education system.

The rapid evolution in medical education gave birth to PBL. Some fifty years have passed since PBL was conceived at the Faculty of Engineering, McMaster University in Canada but the implementation began at the Faculty of Medicine, McMaster University in the mid 1960's. The concept of adoption and adaptation of the McMaster PBL model was to follow at the University of Limburg at Maastricht in the Netherlands, the University of Newcastle in Australia and the University of New Mexico, USA. Together these four institutions contributed an important educational movement that has a profound influence in many aspects of students' learning experiences worldwide.

Employers require workforce with excellent communication skills. The employees should be able to work collaboratively and also solve creatively ill-defined problems (Ward & Lee, 2002). These requirements became an impetus to accept an innovative educational system that can be a solution for generating such workforce. PBL instructional method enables students to critically think. It also enhances their problem solving skills and ignites students' creative capabilities. During a carefully planned facilitating process, a facilitator empowers students to become self-directed active independent lifelong learners, capable of facing complex problems that they may encounter in their own career. Currently many institutions of higher learning worldwide have embraced the PBL way of educating their students.

Problem Based Learning: Is it here to stay?



Dr. Ashley Edward Roy Soosay
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Underlying Pedagogical Principles of PBL

PBL fits with the tenets of adult learning theory. In a nutshell the adult learning theory proposes that a learning environment is characterised by physical comfort, mutual trust, mutual respect, mutual helpfulness, freedom of expression, accepting of differences, where learners perceive the goals of the learning experience to be their own goals, where learners accept a share of responsibility for planning and operating the learning experience and therefore have a commitment to it, where learners participate actively and sense progress toward their own goals (Knowles, 1980). The essence of adult learning theory is applied in PBL.

PBL is also in tandem with constructivism. Constructivism assumes that "knowledge" is not an absolute, but is "constructed" by the learner based on previous knowledge and overall views of the world (Savery & Duffy, 1995). Engaging a student's prior knowledge to build upon, is one of the core ideas of PBL and this is in parallel with refining or restructuring knowledge as more relevant experiences are attained.

PBL has gained a foothold in the current educational system

In a student centred learning model, faculties are seeking a formula to promote teaching and learning so that our students are able to remember, apply and continue learning throughout their life. In reality, many students memorise, forget, fail to apply, integrate knowledge and resist further learning (Camp, 1996). PBL curriculum seems to foster the more positive attributes of learning in students. The positive attributes have been noted as distinct characteristics of students who are engaged in PBL curriculum (Camp, 1996).

Advocates of PBL educational system have been enthusiastic regarding this paradigm in teaching and learning. The PBL innovation implemented in many institutions is perceived as being very successful by faculties and students. Such affirmative feedback gives confidence to many other institutions that PBL implementation is universally acceptable. The free channel of communication between the initiators of PBL and the adopters is also a significant contributing factor for the success of PBL implementation in new institutions (Camp, 1996).

Students engaged in PBL curriculum are able to retain knowledge much longer than students taught in a conventional curriculum (Dolmans & Schmidt, 1996; Norman & Schmidt, 1992), although in the initial stage, the later may prevail. Students who have experienced PBL curriculum are also able to integrate effectively the theoretical knowledge to applied knowledge (Barrows & Tamblyn, 1985; Dolmans & Schmidt, 1996; Norman & Schmidt, 1992). Preliminary evidence indicates that PBL engaged students are able to transfer concepts to new problems (Norman & Schmidt, 1992).

PBL curriculum have a profound impact on self directed learning and rekindling students' motivation (Barrows, Tamblyn, 1980; Blumberg & Michael, 1992; Norman & Schmidt, 1992). Students from a PBL curriculum are able to mould their learning relevant to their own educational requirements. In addition, students also learn how to identify incompleteness in their pool of knowledge therefore setting the path to evaluate their own strengths and weaknesses. PBL allows students to define the learning issues and determine their relevancy to their learning process. Due to the active participation of the learners during the discussion of the subject matter, the intrinsic interest increases. Therefore this student centred learning approach increases motivation because students are dictating their own learning.

Last but not least, another reason for PBL to "grow popular" is due to the desire of a faculty to embrace PBL curriculum so as not to have "missed the boat" (Camp, 1996). Institutions may become ardent fans of PBL curriculum because they do not want to be known as lagging behind the current trend.

Implementation of PBL Curriculum

Initiating a PBL curriculum is not a simple task. This innovative method has its many success stories. The successful implementation of PBL curriculum in many institutions around the world is a fact. Adopting and adapting this method to the local settings have been employed in many local institutions. Adopters comprehend the benefits of this innovative educational paradigm but yet barriers to PBL persist furtively. Advocates of PBL will highlight the advantages but opposition will cry out that it is only a passing fad.

Effective implementation of PBL curriculum requires lecturers to adopt a new mindset. Lecturers must cease control over students learning and embrace the art of facilitating the learning process. From being an authority for dispensing knowledge, lecturers will provide facilitation for students' research and inquiry. In the perspective of many lecturers, this change and evolution of education methodology is untenable. Therefore, the first hurdle to cross is the instructor. This barrier can be overcome if lecturers are exposed to the advantages of PBL curriculum and realise the benefit it brings for their students' learning process.

Another factor inhibiting the change is the teaching and learning professional development programme for lecturers. Not all lecturers have formal training in educational philosophy and instructional methods pertaining to PBL. The conventional teaching and learning professional development programmes may persist in the traditional lecture format where reliance on rote learning is pivotal (Albion & Gibson, 2000). This barrier can be tackled by implementing student centred learning approaches in training of new lecturers at higher learning institutions and this has been implemented in UNIMAS.

The next factor that is a barrier to PBL curriculum is the inept preparedness for embarking on implementation of PBL curriculum. Training materials, curriculum guides and textbooks pertaining to PBL implementation in many disciplines are lacking (Gallagher, Stepien, Sher, & Workman, 1995). Currently the fields that are rich with supporting materials regarding PBL are medicine and engineering. The philosophies supporting PBL are well established but the detail mechanism to implement PBL curriculum in various other disciplines are still in short supply. We need champions of PBL in various disciplines to initiate the filling of these gaps.

We must remember that the intended recipients of this innovative educational instructional method are our students. Therefore they too need proper training and guidance to accept this new method in teaching and learning. The administrators of institutions adopting PBL method need exposure to the philosophy of PBL so that the environment, resources and infrastructure to implement PBL curriculum will become a reality.

Conclusion

In PBL, learning can be synthesised and organised in the context of a problem. In the perspective of a lecturer, the facilitation process is not knowledge driven but rather it focuses on metacognitive processes. The adult learning theory and constructivism go hand in hand with PBL educational paradigm. The ability to retain knowledge, enhance problem solving skills, ability to integrate theoretical knowledge to applied knowledge and to promote independent as well as lifelong learning skills are some of the positive attributes that are accrued by a student in a PBL curriculum. The benefits of implementing PBL based curriculum are obvious but yet barriers are lurking among faculties. Overcoming these barriers and implementing an effective PBL curriculum lie on the shoulders of instructors and administrators of higher learning institutions. Furthermore implementing PBL is not the end of the line. PBL adopters should not be complacent. Research and development in various aspects of PBL must be undertaken in order to ensure the viability and sustainability of PBL curriculum in higher learning institutions.

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The Line Between Teaching and Learning

UNIMAS is both an old and new place for me. It is a place I have gradually learned about since I was a little girl in the year 1993. Back then, for a seven-year-old who occasionally followed her parents to their workplace, UNIMAS appeared an alien environment. After completing secondary education, I left Sarawak for eight years to further my studies. I went to Labuan for matriculation then across the South China Sea to my childhood home in Selangor for both undergraduate and masters degrees. Now it seems like I am back home again here after having been offered a lecturing position at the university.

I am now teaching Physics course at the Centre for Pre-University Studies in UNIMAS. Until recently, I have been experiencing a mix of old and new phenomena. The atmosphere felt the same as it did many years ago, but the surroundings appeared somewhat different. Within a month of working here, I can honestly say that it has been both a teaching and a learning experience. The lecturers do what they can to guide their students to understand the subject matter they are teaching, but at the same time, lecturers learn something from the process as well. As lecturers, we learn that the pre-university students have their own opinions and they are brave to stand up and voice their thoughts and ideas. They are capable of critical thinking, and weighing the pros and cons of various issues. In a lecture hall, the question and answer session is in fact, in full motion. In this, lecturers learn how to provide information to the students as well as how to accept their point of view. During the sessions, these students are very exceptional in terms of expressing themselves. The knowledge they received is carefully evaluated to be mentally occupied in the various topics of the subjects.

As one enters the classrooms here at the Centre for Pre-University Studies, the class atmosphere is often filled with noise. Within this noise there exist honest souls who are willing to learn. What is commonly perceived to be a noisy environment is actually a lively discussion about the rationality of each piece of knowledge absorbed. The manner in which knowledge is learned in these pre-university classrooms can be compared to the act of eating. Every little bit of knowledge is carefully chewed, digested and dissolved.

As a lecturer, to teach in UNIMAS is also about learning many new things. The knowledge that we deliver and share with students will create a new path of discovery, and perhaps spark new kinds of knowledge that we could be learning from.



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The tree of knowledge is never short of its expanding roots. Its leaves fall to the ground, giving a different condition to the earth, which connects the soil back to the roots.

Here in UNIMAS, there is a subtle of a two-way communication within a little group of people, encouraging one another to make a huge difference. Back when I was the student, I never truly appreciated the meaningful value of each lesson. However, now that I am the teacher, knowledge that is shared in the classrooms has never been more meaningful. Each day that passes give me a whole new perspective about the content of knowledge that I teach, about the nature of teaching, and consequently the reality of life. There is a saying that goes: "two heads is better than one". In a class full of dozens of heads, the meaning of the adage goes a long way. If everyone in the room is willing to contribute his/her opinions, however small or large they may be, the value of learning will go a long way.

As I gradually move into another new month in the academic session, the old UNIMAS that I remembered when I was younger is starting to feel very new. Between the historical wooden buildings and the brick walled corridors, the past and the present collide with one another.

The generous quaint lakes on the east side of the East Campus and its massive counterpart on the west complement each other. The neighborhood in and around UNIMAS continues to develop. Its faculty buildings still stand, but the staff members are constantly on the move. Between the students coming in and the staff going out, there is always something to see everywhere we turn. For each person we miss when they leave, another person walks in to be acquainted with. In UNIMAS, the old does not give way to the new. They co-exist with one another, trying to create a balanced harmony for a better future. Teaching here can be observed as an old experience to some, but learning is always, and always will be, a new experience for each and every one of us. As a whole, I cherish the teaching and learning experience in the Centre for Pre-University Studies. This experience is truly worthwhile. Together we can build a better future in education here in UNIMAS.

What is Causing the Fall in Academic Standard among our Students?



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At the end of each semester, and after the exam marking and meetings, many of us would lament the falling academic standard of our students. Perhaps, this situation is not partial to this institution and it may well be a nationwide phenomenon. Although the decline in Malaysian education standard is widely felt (Lee, 2011; Masterwordsmith, 2011; Gunasegaram, 2011), no proper studies have been done to support the recognition of this predicament as a real problem in this country. Consequently, its fundamental cause(s) remains largely ambiguous. All that have been discussed so far are a myriad of opinions. Among the most likely reasons attributed to the decreasing level of academic standard are low English proficiency and competency among local university students and graduates (Masterwordsmith, 2011), and their lack of independent learning skills (Ramachandran and Renganayar, 2011). To date, no empirical study of falling academic standard in this university has been reported. Enriching a university environment also means providing quality education, and this implies expending bold efforts to probe the causes behind the declining quality of learning produced by our students. Consequently, an ingenuous answer from the findings of such investigation must be made known to all who are involved in university education.

In this article, I report on a mini study to substantiate the deterioration in standard as a true crisis, and to unravel the causes. The hypothesis for this simple study is that the declining standard stems from the students' shortcomings in understanding foundation knowledge. In other words, failure of students to internalise basic content knowledge that should have been acquired at secondary school level leads to the drop in learning standard demonstrated at university level. The method of investigation involves analysing the performances of UNIMAS Resource Biotechnology students in various tests and examinations conducted for a second year course. Three cohorts of students of 2007, 2008 and 2009 intakes (comprising a total of 343 students) were involved in the study. Test questions on basic chemistry principles and associated mathematical calculation were selected. For the purpose of the study, a multiple choice question format in the mid semester test (Box 1) and a structure question format in the final examination (Box 2) were targeted. Generally, the test questions require students to apply their understanding of the fundamental concept of Molarity – an established format of expressing chemical concentration. Prior to university education, the principle of this has been taught to them in Form 4.

The same content has been introduced and taught to these students when they attended secondary school, specifically in the Form Four Chemistry syllabus. (Ministry of Education Malaysia, 2005).

Box 1
What is the amount (in gram) of Potassium Dihydrogen Phophate salt (MW=136.09 g/mol) required to prepare a 0.4 litre of 1.25 M KH PO Solution?

A. 43.549 gram
B. 54.436 gram
C. 68.045 gram
D. 170.112 gram

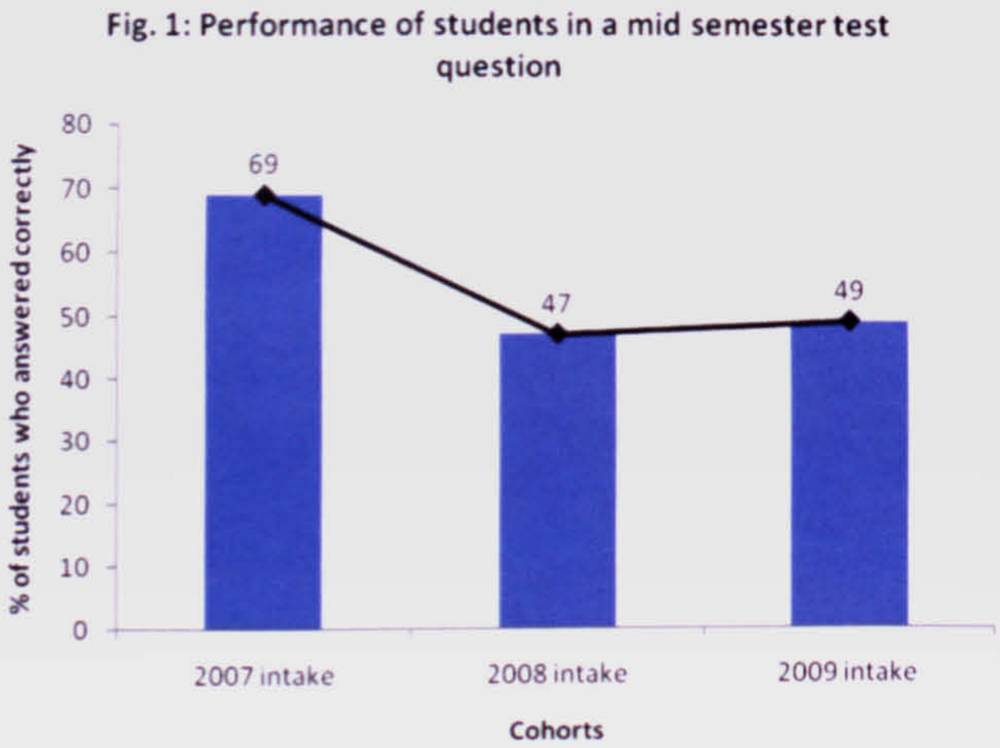
Box 2
Calculate the amount (in gram) of Tris Base (MW=121.14) that is used to make 0.5 litre of 1.5M Tris-HCl (pH 7.5). Next, work out the volume (in ml) of 1.5M Tris-HCl and 0.5M of EDTA (pH 8) needed to prepare 750 ml of TE buffer. *Note: TE buffer contains 10mM Tris-HCl and 1mM EDTA*

Based on the performance in the mid semester test, there is a noticeable difference in achievement between the 2007 and 2008 cohorts (see Figure 1). There is a 22% difference in scores between the two cohorts. However, when the 2008 and 2009 cohorts were compared, the performance levels on the test were relatively similar, with only a 2% difference (see Figure 1). It is observed that more than 50% of students in each of the two newer cohorts failed the test. In sum, the results collected from the three cohorts suggest two possible implications.

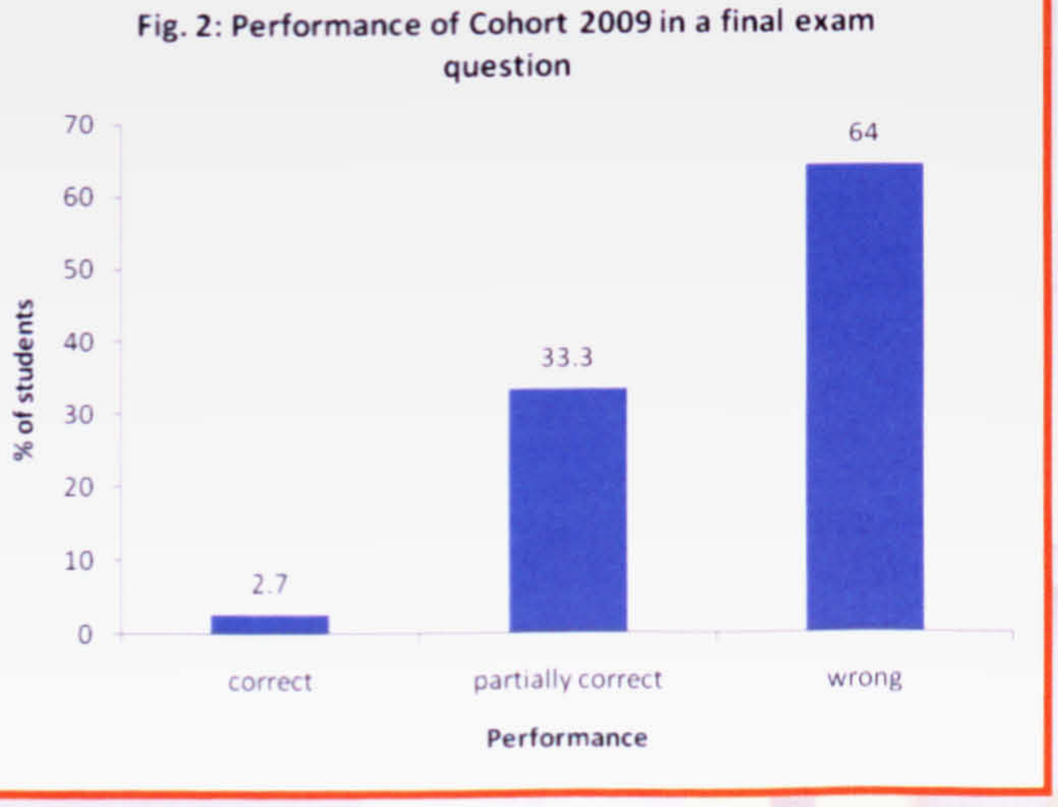
Firstly, the results provide empirical evidence that the three cohorts demonstrated poor grasp of the fundamental content knowledge on the identified topic. The differences of scores between cohorts further illustrate that the lack of content knowledge not merely an opinion, but a phenomenon which can be derived from the students' performance in the mid-semester test. It dispels the conception of a rising standard among university students, or that there is no deterioration students' level of understanding fundamental content knowledge over a period of time. Secondly, the results reveal the disturbing truth that more and more science major students in a top programme (Resource Biotechnology) are unable to handle basic chemistry principles and associated mathematical calculations. Could this imply that incompetence or failed learning of some fundamental concepts may be part of the reasons for the declining academic standard of our university students? Our findings may suggest a possible link between the two.

A closer examination of the phenomenon was done on the latest cohort (Cohort 2009) by analysing their performance in the final exam. The question item (Box 2) tested the students' understanding of fundamental content knowledge about Molarity, similar to the items tested in the mid semester test, using a structured question format. The analysis revealed that only 2.7% (3/111) of students answered the question correctly while 64% (71/111) gave the wrong answer (Figure 2). Despite the fact that 36% (2.7% + 33.3%) of students provided absolutely or partially correct answer, there remains a notable majority that failed in this test item.

This analysis reveals that only 3 students in the 2009 cohort fully understood the fundamental concepts of Molarity. It also means that in this group of 111 students only three mastered these concepts taught at secondary school level. This is an unacceptable statistic on the quality of education in this country. A more disturbing detail is that despite exposure to this concept in the course (of which was tested in the mid semester test conducted 9 weeks before the final exam), a majority of students are still unable to grasp it by the time of the final exam. As a matter of fact, there is a drastic decrease (by 46.3%) in number of students (between mid semester test and final exam for Cohort 2009) who is able to competently handle the test question on the said subject matter.



(Figure 1)



(Figure 2)

The mini study brought to light a disappointing scenario regarding the students' grasp of fundamental content knowledge. Despite being taught the said basic concepts in secondary school, in the first year of university, and the first semester of the course concerned (at second year), a majority of students still demonstrated poor competency in the said subject matter. This reflects a problem in the learning abilities of students (content knowledge per se) that needs to be recognised by university educators. Needless to say, this phenomenon of poor learning skills requires further research.

In conclusion, this study illustrates that the deteriorating academic standard of university students may be caused by students' lack of grasp of the fundamental content knowledge which should have been acquired at secondary school. Two aspects may have to be looked at in improving standard of learning content knowledge among university students.

Firstly, at the secondary school level, one should ask whether students nowadays commonly failed to learn properly or that the current standard of education (teaching per se) has dropped? In fact, grades inflation in public exams (Yow, 2011), and low English proficiency and the lack of critical thinking skills among secondary school students (Lim, 2011) have been expressed in recent public opinions. Our findings indirectly suggest that careful research need to be done on the current practices and implementation of secondary school curriculum with respect to instructional efficacy. This is because the standard of teaching and learning in secondary schools will also partly influence the standard of performance of students in universities.

Secondly, at the university level, our findings suggest the need for intensified efforts in reinforcing the teaching of fundamental content knowledge. Concepts taught at secondary school cannot be assumed to have been mastered by students prior to entry into university education. In fact, universities nowadays should not take for granted that students come with acceptable level of competency in fundamental content knowledge. This means universities will have a more challenging role in making sure that students achieved acceptable standard in their fields of major when they graduate.

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Morpheus:

Enriching e-Teaching Practices & e-Learning Experiences



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I had recently googled the word 'Morpheus'. The first two links showed Wikipedia pages that defined and explained the word. Morpheus in Greek mythology is the god of dreams. Morpheus is also the name of a fictional character and secondary protagonist in the science fiction films: The Matrix, The Matrix Reloaded, and The Matrix Revolutions. The third link appeared to be our Morpheus, UNIMAS official online learning system. Perhaps you are inquisitive about how our online learning system gets its name? Well, it is named after the server that is used to store the application and this online learning system was first used in 2002. Historically, the very first e-Learning server was called "OLE", which was short for "Online Learning" . The team at that time thought the name was too bland, so they started naming the next two servers acquired at that time as "Athena"(the Greek god of Wisdom) and "Minerva"(the Roman version of "Athena"). As time went on, the Greek names were used to name the servers, and among the names used were Apollo, Hera, Xeno, Titan and so forth.

As the university moves on to increase the student intake, the e-Learning Unit at CALM as well as the Centre for Information and Communication Technology Services (CICTS) face a new technical challenge to ensure smooth access to this interaction- and multimedia-intensive system. A very recent effort involved the migration of this online learning system to two new servers, namely Odyssey and Asteria. Morpheus, however, remains as the official name of the system.

In the recent years, we have observed an encouraging growth in the use of Morpheus. As shown in Figure 1, the number of active online courses has increased dramatically from 40 in the year 2007 to 561 in the year 2010.

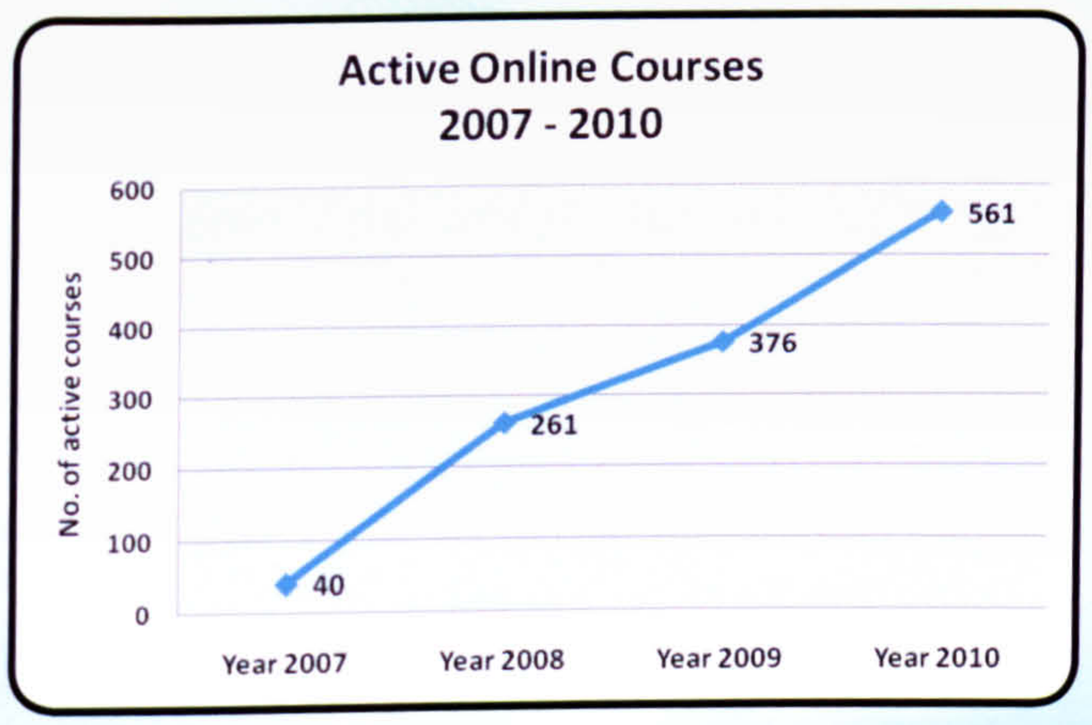


Figure 1: Number of active online courses in Morpheus (2007-2010)

The e-Learning Unit has also actively conducted various workshops to equip our academic members with adequate knowledge and skills on how to use Morpheus effectively. Among the workshops conducted include *Morpheus Basic* and *Morpheus Advanced* that provide technical knowledge on how to use the interface to create and manage online contents, online activities and online learners; *Learning Activity Management System* that provides the necessary technical skills to create sequences of online learning activities; *Morpheus Video on Demand* that introduces the use of lecture recording which can be synchronised with the PowerPoint slides; *Enriching Your Online Course* is designed for advanced users to explore more online teaching and learning possibilities; as well as *Online Pedagogy* that emphasises on e-Learning models that guide the design of online learning environments and the various plausible online teaching and learning solutions for university students. In addition, CALM has also incorporated all these workshops into the *Technology for Teaching and Learning* module, which is one of the eight modules offered in the university's Postgraduate Diploma in Teaching and Learning programme.

What do our lecturers say about Morpheus in **enriching their e-teaching practices**?

Terry bin Lucas – Faculty of Applied and Creative Arts

"*I find that there is a lot of potential in e-teaching using Morpheus. For me, Morpheus is a place for information sharing among facilitators and students. There is a variety of tools to engage students in a more interactive learning experience such as LAMS, Workshop, Forum, Quizzes, Questionnaire and more. As Morpheus is continuously improving, so can our teaching methods to meet our students' expectations.*"

Bakri bin Abdul Karim – Faculty of Economics and Business

"*The integration of instructional technology such as MORPHEUS into the university classroom has become a vital part of education. MORPHEUS can make a significant difference in my e-teaching practices. Through the workshops, I have been inspired to utilise the available tools in MORPHEUS to design and implement various e-teaching ideas.*"

Dr Lee Kui Soon – Faculty of Resource Science and Technology

"*I strongly agree that Morpheus is one of the powerful online learning tools if fully utilised. I used it to upload my PowerPoint slides, embed videos, conduct online surveys, upload extra reading materials and link Morpheus to other webpage or social networking platform such as*

Facebook to make learning and teaching more fun and interesting. Using Morpheus in teaching and learning is quite user friendly, environmental friendly (we can decrease the use of papers) and the online activities can be conducted anytime and anywhere. Should there be an unexpected turn of events in which I cannot attend class, I can just upload a general announcement to inform students about cancellations or postponements, or replacements by other course facilitators. Additionally, using Morpheus is less time consuming and it promotes more interactivity and communication between lecturers and students. It is particularly true for those who are shy and do not converse well in class. Morpheus will be a useful tool for them to express their opinions and thoughts. For students, when they attempt their written assignments, Turnitin will assist to check on the originality of students' work and it will ensure the reliability, validity and practically in marking their assignment and at the same time the work quality can be preserved.

What do our lecturers say about Morpheus in **enriching their students' e-Learning experiences**

Assoc. Prof. Dr. Fakruddin Gulam Abbas Dawoodi – Faculty of Medical and Health Sciences

Morpheus has enabled our students to use the internet in an appropriate way. Instead of using the internet for accessing mails, socialising and surfing aimlessly, the various activities that are available in Morpheus such as wiki, quiz, questionnaire, assignment, forums, FLV player, glossary, LAMS and even Turnitin assignment, when carefully designed, enable our students to experience learning in ways that are impossible via the conventional face-to-face sessions.

Nurashikin Bt Suhaili – Faculty of Resource Science and Technology

With the various useful features in Morpheus, learning can now be more flexible and various new learning approaches afforded by technology can now be implemented. For example, students can have easy access to course materials, experience learning activities that are not constrained by physical classroom setting and limited face-to-face meeting time, enhance understanding through supporting teaching aids such as videos and images, as well as through activities such as online tutorials and discussions. More importantly, via Morpheus, all students have an equal chance to interact and participate and this perhaps would further engage their learning.

Mogeret bt Sidi - Faculty of Resource Science and Technology

Our students, who are from Gen Y era, have been spending a huge amount of their time online, surfing the Internet. With Morpheus, they have no excuse to miss any lecture materials or forget examination dates. Moreover, they can efficiently get in touch with their lecturers on matters related to their studies at anytime and anywhere.

Moodle, an open source learning management system, that serves as the underlying engine of Morpheus is currently the world's most popular online learning tool. Amidst the rapid online technological advancements, I foresee Morpheus will stay for the next five years but its look and functionalities will without doubt be continuously enhanced to sustain e-teaching practices that will meet the ever-demanding net generation students' e-Learning expectations. Mobile Morpheus will most probably be the next enhancement.

To date, the e-Learning Unit has not conducted any thorough study to investigate the impact of the use of Morpheus on the quality of teaching and learning on campus. However, through the online courses that have been developed, it is obvious that this online learning system has successfully stimulated new modes of inquiry; increased students' confidence, ability and responsibility in creating publishable contents; created new forms of collaborative learning; provided plenty of rooms for knowledge sharing; and enabled informal learning to occur in a formal learning environment.



Upcoming Workshops by CALM

October 2011

- ❒ Case Study Writing Workshop 5-6 Oct (in collaboration with RIMC)
- ❒ Student Centred Learning Workshop - Case Study 27 - 28 Oct

November 2011

- ❒ *Bengkel Penulisan Buku* 1 Nov
- ❒ Curriculum Development Workshop 2 Nov
- ❒ Assessment Management Workshop 9-10 Nov
- ❒ Bloom's Taxonomy Workshop 11 Nov

December 2011

- ❒ Qualitative Research Workshop 1-2 Dec (in collaboration with RIMC)
- ❒ Journal Writing Workshop for Humanities 13 Dec

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