Integrated Approach: Moving Towards Innovative Teaching

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ABSTRACT

One of the goals of an academic institution is to produce graduates who are able to fulfill the needs of potential employers. This, however, will not be realised if graduates are not able to apply skills learnt in the classroom to the workplace. It has been found that even in the classroom, many students are not able to apply skills learnt in one course to another even though they are inter-related. For example, English language skills learnt are not applied to the other non-language classes. Hence, this paper suggests that integration across disciplines be implemented as one of the ways towards a more holistic approach in educating our students. It also explores the benefits of integration and suggests several integration techniques that can be applied to the Faculty of Office Management and Technology (FOMT) in UiTM Pahang.

Keywords: *subject integration, discipline, English, Office Management, OM221*

Introduction

Every institution of higher learning has the objective of producing graduates who are competitive in the job market. However, there are many factors influencing the level of academic achievement of the students. Empirical research have looked into the dynamic characteristics that must be present within the students themselves to enable them to become excellent students to fulfill the client and market needs. As a matter of fact, there are also many external factors that determine the students' excellence such as good curriculum, excellent teaching staff and world class facilities.

Producing a perfect academic curriculum is not easy but it is also not impossible. It requires an integrated effort and comprehensive outlook for those who are directly involved in the education industry especially the academicians who are the front liners. Upon graduation, students are expected to have mastered not only knowledge relating to their fields of study but also specific skills that are needed to enable them to undertake their job requirements. However, the reality is such that many of our graduates today lack certain competencies to enable them to complete their job to their employer's expectation and satisfaction. It is perceived that this is partly a result of a lack of integration of the various skills during the education process itself. For example, in the matter of English language skills, many graduates fail to produce good reports using proper English grammar and vocabulary that convey the right message.

Graduates' English language skill or the lack thereof, has long been the main concern for most people in the education sector. Many complaints have been received from academic staff and potential employers that university graduates are not proficient in English especially in communicating with clients or their colleagues. In UiTM, English is considered important as it does not only function as the students' second language but, more importantly, it serves as the medium of instruction. All courses in the university are required to be conducted in English and so students are expected to be proficient in the language well enough to function academically.

Much effort has been put in and many different teaching approaches have been used to ensure that the aim of producing employable graduates is achieved. These include interactive learning, participative learning and other approaches used by many academicians. We may at times be too ambitious in developing and preparing a curriculum that sometimes burden the students with content that is too heavy. This can cause us to forget that there are other requirements that need to be looked into such as the students' ability to communicate in English.

There are many employers who complain that our graduates are not able to communicate effectively in this important language. This is not surprising because the time allocated for learning this language is only a few hours per week in a semester. However, it can be said that because of the constraint in the amount of learning hours allocated, it is even more important that efforts towards integration be seriously carried out in the current curriculum. This paper will suggest how teaching in an integrated way can be realised to help students assimilate and use the acquired knowledge to better understand their subject matter.

What is Integration?

According to Wikipedia, knowledge integration is "the process of synthesizing multiple knowledge models in a common model". However, for the purpose of this study, we are more interested in the following definition:

> "Knowledge integration is the process of incorporating new information into a body of existing knowledge. This process involves determining how the new information and the existing knowledge interact, how existing knowledge should be modified to accommodate the new information, and how the new information should be modified in light of the existing knowledge." (Wikipedia)

Fogarty (1991) suggests three forms of integration namely; integration within a single discipline, integration across discipline and integration across learners. This paper will only touch on the second form which is integration across discipline. The disciplines to be discussed are English language (the BEL codes) and office management courses (the OSM codes).

Why Integrate?

Integration has numerous benefits. Many studies have shown that integration helps to improve students' achievement (Gardner, Barnes & Benite, 2007). For example, a study conducted by the Progressive Education Association found that graduates who had gone through an integrated study system during their school days performed better than their peers who had gone through the traditional school system (Hinde, 2005). Another study also argued that integration system increased students' engagement rates (Yorks & Folio as cited in Hinde, 2005) and had a positive effect on students' attitudes and self-concept (Schubert and Melnick as cited in Hinde, 2005). Mc Bee, as cited in Hinde (2005) also found that a result of integration was that students were more interested in their studies and enjoyed their learning experience better.

By looking at these experiences it can be said that integration is proven to be successful at the primary and secondary levels. Thus, it is not too far fetched to assume that it can be even more successful and beneficial if it can be implemented at the tertiary level. Many research, quoted in a report written by Gardner, Barnes & Benita (2007) reveal that undergraduate students who were actively involved in the social and academic activities experienced positive outcomes

such as better personal development and higher academic achievement. This is because at tertiary level, the students are being prepared for entering the job market and they are already armed with a lot of experience inside and outside the classroom to enable them to integrate knowledge in a more meaningful manner. At this level, the students are more focused in their area of specialisation and, thus, with the practice of integration, will enhance their understanding of the real life application of knowledge learnt. Besides, the students themselves are expected to integrate knowledge learnt in the various courses taken.

However, in reality this does not often take place. A majority of our students fail to fully integrate the vast knowledge and skills acquired over the semester even though at times the skill taught in one course is similar to the skill taught in another. It would greatly enhance their learning experience if they were to view the skills as complementing each other rather than as distinct and separate items. Therefore, if integration is formally incorporated into the curriculum or course design, the students can clearly see the relevance of and connection between the different skills taught. They can appreciate the interconnectivity of skills learnt and apply them in a more holistic manner. This can help universities to produce graduates who are better prepared, well-rounded and can apply their skills in any situation. This is even more important now in the current job market because potential employers look for this kind of graduates to fill job vacancies.

There are numerous things to consider before embarking on any move toward integration. As mentioned in redorbit.com, "Integrating the curriculum is a powerful and useful pedagogical tool when it is employed with much preparation and thought". The success of the integration process will depend on the lecturers' "ability to integrate content across disciplines effectively in meaningful ways". Accordingly, the lecturers involved must have "adequate knowledge about the content areas they are integrating and must have adequate training in integrative techniques" (Hinde, 2005). Thus, this shows that integration requires a lot of planning not only on the part of the lecturers but also at faculty level especially among the policy makers. To ensure that the integration process achieves its objectives, full commitment is required from the lecturers as well as from the higher authorities at both faculties. Input must be gathered at all levels. This is a must because only through extensive discussion and cooperation can the integration process be successfully carried out.

A Model of Integration: Harden's Integration Ladder

An interesting model introduced by Harden (as cited in Nordheim & Omland, 2002) gives an account of the different levels of integration that can occur across disciplines. This model (Figure 1) consists of 11 levels which show the different stages of integration that are possible to be applied in any curriculum. However, only 9 are mentioned here because these are the most relevant to our discussion.
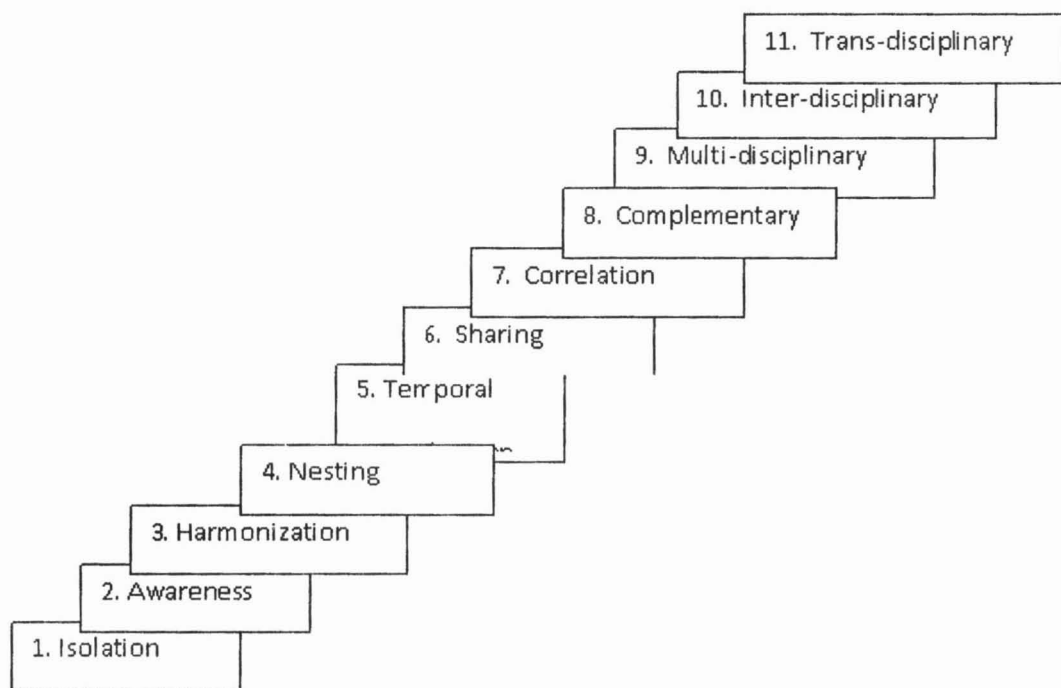
Figure 1: Harden's Integration Ladder

Descriptions:
1. Isolation – where there is no integration between the different courses. Each course is taught as a separate entity without any acknowledgement of the other courses.
2. Awareness – at this level the lecturer is aware of the different courses offered but makes sure that the contents do not overlap.
3. Harmonization – at this stage the lecturers will discuss with each other and try to adapt the contents of their course in order to harmonize them.
4. Nesting – means "targeting skills related to the other course, so that teaching is related to the broader curriculum outcomes of the sum of the two courses."
5. Temporal coordination – where the two lecturers adjust their teaching schedules or their covering of the topics in such a way that they run parallel to each other. At the same time, the student can find out the relationship between the contents of the two courses.
6. Sharing – "would imply joint teaching in the two courses, with a focus on the shared concepts, skills and attitudes."
7. Correlation – at this stage, the focus is on the main discipline but certain aspects of the related course content will be integrated.
8. Complementary – "would have some subject-based teaching, but the common or integrated sessions would constitute the dominant part of the courses"
9. Multi, inter and trans-disciplinary make up the higher levels of integration. However some researchers use these terms interchangeably. Nordheim & Omland, (2002) and Nissani, (1997) interpret interdisciplinary as "bringing together distinctive components of two or more disciplines".

The Integration Process in the Faculty of Office Management and Technology

The Bachelor of Office Management (OM221) programme under the Faculty of Office Management and Technology (FOMT) was first introduced in UiTM Pahang in 2005. This is a six-semester program and most of the students registered here had completed their STPM, which is the entry qualification. This means that these students had not taken any English course at all during the last two years prior to entering UiTM. Unlike the diploma students who have to go through at least three semesters of basic proficiency English before embarking on ESP (English for specific purposes) courses, these OM221 students are required to do higher level courses such as critical thinking and report writing without having a strong foundation in English.

As part of the university's regulation, all programmes offered in UiTM must have a certain percentage making up its core courses, electives and minor plus courses that constitute university requirement such as English, Islamic Studies, third language and co-curricular activities. As far as OM221 is concerned, the number of courses offered as the university requirements is limited to a few BEL and CTU courses. OM221 students are required to enroll in only three English language related courses namely BEL 402, which is audited, BEL 462 (Reading and Critical Thinking) and BEL 422 (Report Writing) plus two classes of CTU courses i.e. CTU 551 and CTU 553.

Lately, the quality of learning achievement among the OM221 students has deteriorated. One of the main factors responsible for this is their weakness in the English language. Most of the reports provided by the lecturers concerned regarded English as the main barrier for the students to perform well especially when it came to responding to questions during examination. It can be concluded that many students fail to excel in their core courses which require the mastery of English. This is clearly illustrated by the students' performance in the recent examinations. Table 1 indicates the average score of the students during the April 2009 semester. It can be seen that the results obtained in their core courses are in the range of C and B- (2.00 – 2.67) and only a small number of students obtained B and B+.

Table 1: Average Score of OM221 in BEL and Core Courses

Semester	Course	% Pass	Average Score
	BEL 402	**100**	**2.65**
	BEL 462	**84.21**	**2.37**
	BEL 422	**100**	**3.36**
	ECO 415	83.33	2.25
	OSM401	82.61	2.13
APRIL 2009	OSM403	95.65	2.17
	OSM404	87.50	2.22
	OSM453	85.19	2.74
	OSM503	100	2.61
	OSM504	100	2.79
	OSM553	91.30	2.48

It can be said that having to learn every course fully in English has resulted in these students not being able to understand the course contents well and, therefore, cannot give the correct answers to the questions given. There are some students who are able to understand the course content that they learn clearly. However, because of their inability to master the correct vocabulary in the field that they are, they fail to give a clear explanation when answering exam questions. All of these students had already passed their semester one audited English course but this did not reflect their actual ability to use the language. Unfortunately, even though they are diligent in memorising facts, knowledge of facts alone does not ensure that they will be able to obtain good marks. This is because at the degree level many of the questions are structured in a way that requires application and analysis, not merely knowledge and comprehension (as suggested in Bloom's Taxanomy). The high failure rate not only affects this group of students but also the rest of the FOMT members especially the Head of Programme who has to ensure that the university and faculty quality objectives are met.

Table 2 indicates that most of the OM221 students are within the range of GPA and CGPAs of below 3.00 for both semesters April 2009 and October 2008. Average students who obtain an average CGPA will end up failing to achieve the target of graduating with a CGPA of above 3.00 points at the end of their study period. This is another issue that affects the FOMT in its effort towards achieving the UiTM Pahang quality objectives (Table 3). Thus, the FOMT Pahang should double its effort to find a way out of this predicament.

Table 2: Students' Achievement According to GPA & CGPA

		GPA	%	CGPA	%
APR 09	0.00 – 0.49				
	0.50 – 0.99				
	1.00 – 1.49	1	0.71	1	0.71
	1.50 – 1.99	3	2.14	3	2.14
	2.00 - 2.49	18	12.86	28	20.0
	2.50 – 2.99	45	32.14	61	43.57
	3.00 – 3.49	51	36.43	37	26.43
	3.50 – 4.00	22	15.71	10	7.14
OCT 08	0.00 – 0.49	0	0	0	0
	0.50 – 0.99	0	0	0	0
	1.00 – 1.49	0	0	0	0
	1.50 – 1.99	3	2.10	3	2.10
	2.00 - 2.49	16	11.19	23	16.08
	2.50 – 2.99	54	37.76	66	46.15
	3.00 – 3.49	56	39.16	43	30.07
	3.50 – 4.00	14	9.79	8	5.59

Table 3: OM221 Graduating Students

	No. of graduates	Graduate with CGPA > 3.00	Percent	Remarks
SEMESTER APRIL 2009	28	11	39.3%	Unable to achieve UiTM Pahang quality objective
SEMESTER OCTOBER 2009	23	9	39%	Unable to achieve UiTM Pahang quality objective

As a way to increase the students' ability to master English and in the process of helping them to understand their course content in a better way, this paper wants to propose a way of integrating across curriculum.

An example of how an integrated approach can be applied is as follows: Let us say an integration between the codes BEL 462 (Critical Thinking Skills) and OSM 553 (Administrative Office Management) is being considered. After some discussions with the lecturer concerned who has had some experience of conducting an English course with these OM221 students, it is found that, at present, the teaching of this course is done in isolation without any efforts towards integration. In the BEL 462 course, the students are required to critically evaluate an argument put forward by a writer. What can be suggested here is that the lecturer involved can give topics or ask students to find articles that relate to their specific area of specialisation (for example office management). By indulging in a lot of reading and discussion in this area, the students will inadvertently be exposed to the relevant vocabulary. Thus, the students will not only be able to improve on their English language skills but also at the same time be able to familiarise themselves with the specific terminology that are frequently used in the field of management. This will reinforce the students' learning of both language and content.

Presently, the reading assignments given are based on general topics and this only helps to improve their general language skills. However, if the above technique is tried out, it can serve as killing two birds with one stone, where the students can benefit in terms of both language and content. However, there are also some constraints if this is to be implemented fully since the lecturer concerned has to have some basic knowledge in the management field to enable him/her to carry out his/her teaching duties effectively in terms of explaining and giving feedback to the students. This level of harmonisation as mentioned by Harden involves the lecturers in these two areas (BEL and OSM) to exchange ideas regarding the appropriate content where integration can be applied.

Figures 1, 2 and 3 show the OM221 students' performance in BEL and OSM courses. These students are from the same batch and they took the BEL codes prior to the OSM codes mentioned in this study. The results are almost similar, indicating that their performance of mastering management codes is concurrent with their mastery of English with an average score almost the same or in the same range. Therefore, if the integration process is applied, it is hoped that OM221 students' performance will improve in the core management courses as validated by the many research that support the notion that integration will improve students' retention and performance. However, Figure 1 indicates the performance of the students in the BEL code does not run parallel to their performance in the OSM code. This is probably because the BEL code deals with basic skills in grammar which does not relate much to the content of the

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corresponding OSM code. In contrast, the other two BEL codes in Figures 2 and 3 are directly related to the skills needed to perform well in the OSM codes.
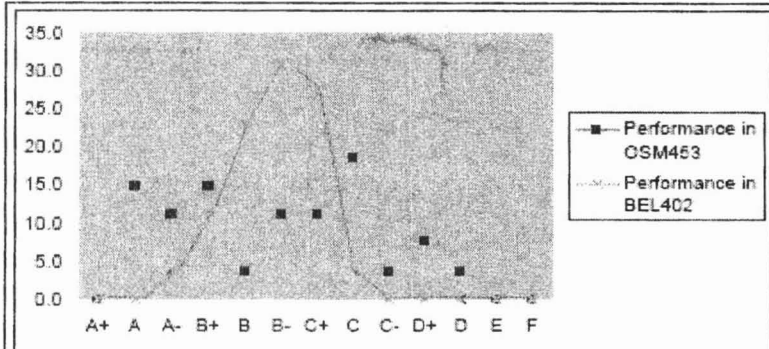

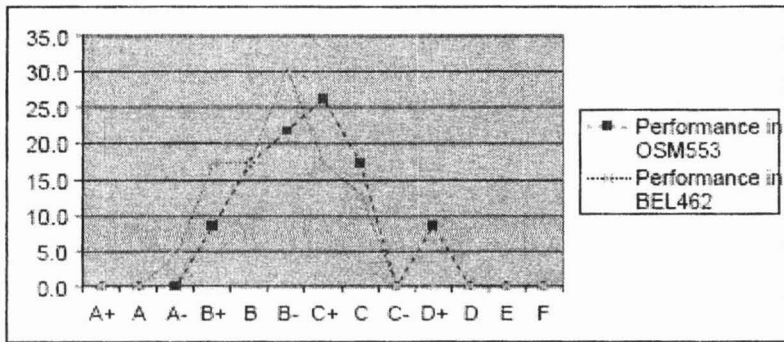Figure 1: Performance of OM221 Students in BEL 402 and OSM453

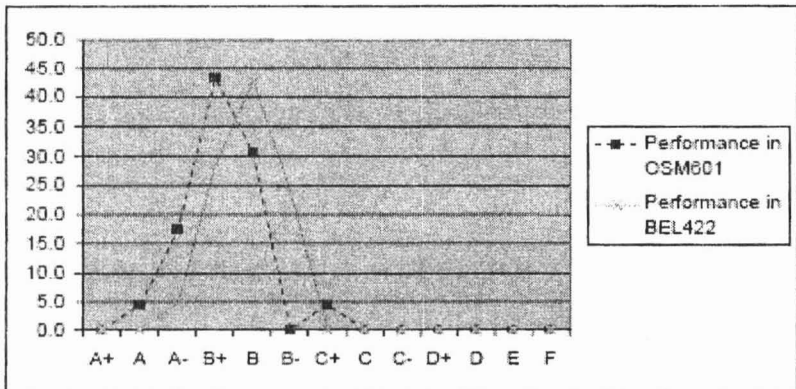Figure 2: Performance of OM221 Students in BEL462 and OSM553

Figure 3: Performance of OM221 in BEL 422 and OSM601

From a mini survey conducted in relation to the above study, 65% of the respondents agreed that their weaknesses in English had affected their academic achievement. Almost 68% agreed that they failed to answer the exam questions accurately due to their lack of mastery in related English vocabulary. Majority of the respondents (86%) also agreed that the activities given during their BEL classes would be able to help them improve their vocabulary in the courses that they will be taking in the coming semester.

Challenges and Constraints

It is already well-established that integration has a lot of benefits. However, there are many challenges and constraints that will affect the success of the integration process (Table 4). We will look at these from both the lecturers' perspective and the student's point of view (Nordheim & Omland, 2002).

Table 4: Comparison between Lecturers' and Students' Perspectives

Lecturer's Perspective	Student's Perspective
Lecturer will usually apply parallel or concurrent teaching of similar elements in the different courses.	Student must use their experience, and different competencies to create positive learning environment.
Lecturer needs to have background knowledge about the elements to be integrated.	Students must be able to integrate existing knowledge with the project given.
Lecturer's creativity is important to use deliverables like plans and reports to co-ordinate activities.	Use of reflection and constant supervision will help students improve their learning outcome.
Concerned with course integration rather than integration of knowledge.	Students apply knowledge integration instead of course integration.
Proper assessment is needed in order to ensure that the required outcome is achieved.	Students need to master their development tasks and apply their different competencies such as social, professional action, and learning/change competencies.
Proper and adequate training on the integration technique is necessary.	
Integration should be regarded as one of the methods/approaches that can be applied to enhance learning but not to convert the whole course into a new subject.	

Below are some suggestions that lecturers should consider when applying the integration technique in their learning environment (Hinde, 2005).

1. The activities or project should be significant to the subject content
2. The activities or project should not distort the integrity of the primary courses
3. The activities or project should be appropriate for the learners
4. Apply the exploration and exploitation strategy as part of the integration mechanisms in the activities/project

Conclusion and Recommendations

It is hoped that with the introduction of an integrated approach within the existing education system in FOMT, we will be able to apply the theoretical aspects learnt in one discipline to be practised in other areas. In general, integration will not only inspire the lecturer but also promote better and more realistic learning environment. Students will be more interested in understanding and relating various disciplines and will be able to apply existing knowledge in finding solutions across disciplinary boundaries. As a result, they will be more motivated (Gardner, Barnes & Benita, 2007) and actively seeking out challenges and are more capable of being a team player in the real working world. In fact, the activities involved will enhance the students' social competency as there are evidences that active involvement will foster higher retention and satisfaction rates that will lead to greater academic success (Garner, Barnes & Benita, 2007).

The positive learning environment will also help our institution to prepare the students to be more ready to adapt to changes and practise life long learning. As a matter of fact, the ability to integrate knowledge has become an important skill that most future managers and organization members should possess in order to survive in the complex and ever changing organizational climate (Berends, Bij & Weggeman, 2006).

It is also recommended that apart from language, the Islamic or religious knowledge be seriously considered for integration across discipline. This is because students of UiTM, majority of whom are muslims, are expected to apply Islamic values in all aspects of their work and conduct whether as students or future employees. Aspects of integrity, honesty and piety according to the teachings of Islam need to be inculcated in every student. In the matter of religious values, it is not uncommon to find workers who do not apply the basic tenets of Islam such as honesty, integrity and accountability in their daily work, although they have done a few years of Islamic studies in the course of getting their diploma or degree. Thus, it is interesting to see whether integration can achieve this aim.

Other than integration across discipline mentioned in the above examples, it is also recommended that the FOMT lecturers themselves move towards integration within their own discipline. This might be easier to achieve since integration within the same discipline involves individuals from the same department with shared goals and vision. Hopefully, this will ensure that graduates from the FOMT are knowledgeable and dynamic in their field and thus will remain competitive in job market.

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