Students' tardiness in an ODL environment: a comparison study on structured and less-structured course content

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Students' tardiness in an ODL environment: A comparison study on structured and less-structured course content

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Abstract

While the mission of Open and Distance Learning (ODL) is to promote educational opportunity to all who wish to realise their ambitions and fulfil their potentials, one of the major challenges facing ODL educators is to create an optimum course content that attracts students and enhances their engagement. In that respect, whether course content is highly structured or not is one of the contributing factors that impact students' interaction with the learning material (Chadwick and Ralston, 2010). One measurable output of such interactions is manifested in the form of tardiness in submitting assignments.

A comparative study between a structured and a less-structured course at the post graduate (masters) level were used for this study. This study looks into students' tardiness responses in submitting their Tutor-Marked Assignment (TMA) at Wawasan Open University in both a well-structured course and a less-structured course. The finding of this study shows that students are less participative and less tardy in a well structured course content compared to weak structured course content. Further exploration by the analysis of the five dimensions of the students' interaction in the learning management system (LMS) concluded that in less-structured course content students tend to be high in procedural activities such as administrative issues. Survey questionnaires were distributed to students to obtain additional supporting data that are related to the structured nature of the courses which may affect their tardiness in the submission of the TMA. Implications of the findings were discussed with recommendations and for future research.

I. Introduction

Open and distance learning has become popular in the past two decades, providing many benefits for students, especially adult learners. In many countries distance universities have been developed to respond to the educational needs of workers who wish to gain skills to advance in their careers. Anadolu University, one of the largest universities in the world, has recorded over 500,000 working adult distance learners. The Open University of Hong Kong has approximately 130,000 leaders (Buford, 2005). With the increasing interest in, and concentration on distance education, the concept of open and distance learning (ODL) has seen phenomenal, exponential growth, especially in the Asian region. The growth is partly due to the globalisation and competitiveness of higher education and the development of information and communication technologies (ICT) which have brought a dramatic transformation to ODL in Asia (Jung, 2009).

The ODL model has gained paramount importance partly because of the convergence of virtually anyone can participate (open entry), class scheduling flexibility and the fact that the student can study according to their own schedule, which makes the university experience easier to accommodate while working. These open entrance systems in higher education provide more opportunities for those busy working adults who wish to realise their ambitions, add a competitive edge for advancement, and facilitate a career change or for whatever other reasons. Undoubtedly, the education door is now open to a much wider audience than ever before. The ODL model has been a major factor in higher education, not only posing a challenge for students, but also for ODL educators, who need to create optimum learning content and a context that attracts students and enhances their engagement (Tatkovićž, Ružic and Tatkovic, 2006; Hossain, 2010). Whether course content is highly structured or not is one of the factors that impact students' interaction with the learning management system (LMS) in the ODL environment (Chadwick and Ralston, 2010). One of the measureable outputs that can be used to determine effective student interactions with the LMS is manifested in the form of tardiness in submitting their Tutors-Marked Assignments (TMA).

In this paper, we made a comparative study in an ODL environment at Wawasan Open University (WOU). We looked at courses that were either judged wellstructured and less structured in Learning Management System. It was assumed that the more organised and informative the course, the less tardy behaviour it would be for students in submission of their Tutor-Marked Assignment (TMA). Further, we wanted to see if there was a relationship between course structure and student commitment as evidenced by students' tardiness in their assignment submission.

II. Literature Review

Pedagogy for distance education such as the ODL model is unique and requires a different instructional design tailored to the needs of distance learners. Some researchers have termed this online distance education pedagogy as *electronic pedagogy* (Natriello, 2005). Barker (2008) posited that online course design is a complex activity influenced by a wide range of factors from pedagogy to various technologically related factors. Studies on distance education courses contend that learning design which has highly structured course content is more likely to be successful compared to ill-structured course content, in promoting student learning (Kearsley and Lynch, 1996; Ostlund, 2008; Saba, 2005). The term structure refers to the elements in the course content design, such as the learning objectives, information presentations, activities, assignments, and feedback mechanisms that are uniformly controlled and organised in well structured manner.

Various researchers in the field of distance education have reported that the most critical factors in distance learning are course structure and interaction with students (Stein et al., 2005). Lee and Rha (2009) studied the influence of instructional design and management style on student achievement and resulting student satisfaction with the distance education environment. The researchers developed two web-based instructional programs. One course was developed in a highly structured, resource-based, self-learning mode, with little interpersonal interaction and the other course was used less structured materials with more interpersonal interaction. Their results suggested that a well-structured instructional program can be provided as a substitute for teacher's interaction. Students from the well-structured instructional course can learn by themselves with very little interpersonal activities such as forum discussions.

This is important for distance learning because there is in fact a computer mediatedseparation between the teachers and the students. A similar study was conducted by Zheng, Flygare, and Dahl (2009) which investigated the impact of cognitive styles on student achievement by examining 116 college students' performance in two differently constructed instructional tasks comparing non-linear and unorganised (illstructured) to linear and well organised (well-structured) learning environments. The results showed that in the ill-structured environment, the students whose cognitive abilities had been pre-coded as field dependent learners, showed no improvement in their learning. Field dependence is a cognitive style that refers to individuals who are more attentive to social cues, and therefore show interest in others, and seem to benefit from an interactive environment. This study is important because it shows that it is important to take students' cognitive styles into account when designing distance learning courses, to improve achievement.

Because different ways of presenting instructional materials in distance education have been found to have different effects on student achievement, researchers have become increasingly interested in understanding the role structural presentation of instructional strategies plays in learning. Hosie, Schibeci and Backhaus (2005) highlighted that when presenting course content in the online environment, it is always best practise to play it safe by never assuming anything. The idea behind this comes from the belief that since instructors are not able to have a face-to-face classroom experience with their students, it is very important to make sure the course content be organised in such a manner that it promotes a sense of continuity. The course content must be concise and explicitly clear to avoid any errors or discrepancies that confound the students. In addition, Junk, Deringer, and Junk (2011) posited that learning management systems such as WebCT, Blackboard or Moodle, designed for online learners, must be well organised and have visually pleasing web content display to "astonish the customer", since online learners are accustomed to surfing the Internet and viewing commercial sites developed by graphic designers, and have come to expect this level of development in any web-based environment.

One of the criteria in regards to achieving quality in ODL is the interaction between learners and instructors. The interactions between the instructors and learners occur when one gives instruction and the other responds, and it is a two-way communication. Mahesh and McIsaah (1999) notes that the interactions and relationship between instructors and learners in distance education are extremely important, since learners usually carry on a dialog with their instructors that are separated in both space and time. Moore (1991) defined this separation of geographical distance between learners and instructors as 'transactional distance'. He claimed course structure and learner-instructor dialog are important elements in transactional distance. The theory posits that a rigid and inflexible program structure will reduce dialog, hence increasing transactional distance.

In the early works of Moore (1989), he claimed that there are essentially three types of interaction: leaner-to-content interaction, learner-to-instructor interaction, and learner-to-learner interaction. Based on Moore's ideas, Garrison, Anderson, and Archer (2000) developed what they called the *community of inquiry* model of online learning. In their model, three interactions work together to support learning online. They further defined the existence of other variables such as the cognitive, teaching and social components, which are present in the interactions. The cognitive presence

is in the learner-to-content interaction, to the extent which learners are able to construct meaning through sustained communication. The social presence is in the learner-to-learner interaction where learners project their personal characteristics into the *community of inquiry*, thereby presenting themselves as 'real people'. The teaching presence is in the learner-to-instructor interaction where learning takes place through facilitative and directive processes for the purpose of realising personal meaning.

Research on learner interactions in an online environment were studied by Oliver and McLouglin (1997) who explored the discourse of interaction and communication in live interactive television (video conferencing in our present time). They investigated five possible dimensions of interactions present in that context. They characterised the dimensions of interactions as: social, procedural, expository, explanatory and cognitive. Each of the interactions requires different classifying interaction activities such as *social* interaction involves conversations that establish relationship; procedural involves dialogue that exchanges information about procedures in general; expository involves demonstrating knowledge or skill in general; explanatory involves further extending knowledge and developing content in the conversation; and finally *cognitive* involves constructive feedback to a learner's response resulting in internal reflection. Wu and Teoh (2007) have done a comparative study on two open distance learning higher institutions (one in Malaysia and another one in China) regarding learners interaction in learning management systems (LMS) and based on the Oliver and McLoughlin's 5-dimension construct. They found that the *Explanatory* dimension of interaction was the more dominant dimension in Malaysia's open distance learners than in its counterpart in China. The procedural dimension was the t dominant dimension among China's open distance learners.

For this study, we look into the structural presentation of the course management system, sometimes referred to as the learning management system, as the basis of effective interaction. Essentially, the course management system provides the platform for the web-based learning environment by enabling the management, delivery and tracking aspects of student learning. Learning Management Systems (LMS) or WawasanLearn is a customizable website that enables the Course Coordinators (CC) to create designed spaces associated with specific taught subjects. LMS is based upon an open source system (MoodleTM) that enables the CC to place supplementary course materials such as PowerPoint slides, course guidelines, forms, and others static course materials for students to download and use. Additionally, it enables students to interact and participate in the asynchronous forum discussion and exchange information with their peers, tutors and course coordinators. Other key features of *WawasanLearn* are the monitoring function where the course coordinator can track individual activities for the whole semester through the use of statistical reporting features and log functions (WawasanLearn, 2011). Layout of the main page of a sample WawasanLearn LMS is shown in Appendix A.

III. Research Model Design

What are the factors that determine whether students' are tardy in submitting their assignments in an ODL environment? We hypothesize that the design of the structural course content (i.e. well-structured versus weak-structured) would motivate students to be more engaged in their materials on a continuous basis, which in turn will

promote more student interaction. Secondly, students' participation in online discussions, such as the discussion forums, which are mainly student-dominated rather than instructordominated, could be effected by the course structure. For instance students who find the course content in LMS helpful and informative, navigating and finding the information easily, may participate less in online forums, contrariwise, students who find the course content is insufficient, may require more guidance or assistance, hence they may participate more in the online discussions. A variety of "independent" or contextual variables may influence whether students will be tardier in submitting their TMA in an ODL environment. For this study, we included three such variables. Those who are currently in the well structured and organised course content in LMS should be feel less anxiety and certainty, resulting in higher motivation and higher enjoyment, as evidenced by students submitting their TMA by the stipulated time. Students who are actively participating in the online discussion forums are those that are finding the course content insufficient (weak structured or less organised) resulting more interaction in LMS and uncertainty, which lead to late in TMA. Finally, there is high involvement of the course coordinator in procedural interactions (such as assessment tasks, involved explanations about course related procedures, requirements and administrative issues) in the forums for weak-structured course content design than for the well-structured course content.

Synthesising the review of literature from the previous section, the following figure 1 illustrates the research framework for this study.



Figure 1: Research Framework

III. Research Questions and Hypotheses

A. Research Questions

Q1: Are students less participative in the LMS and hence less tardy in their TMA submission in a well-structured course compared to a weak-structured course?

Q2: What is the form of interactions, in the context of the five dimensions, in a well structured course compared to a weak-structured course in the online discussion forum?

Q3: What differences exist in the students' interaction pattern in LMS between a well-structured course and weak-structured course?

V. Methodology

The study was conducted in January semester of 2011 at Wawasan Open University. All participants in this study are students from two post-graduate CeMBA courses, one course was well-structured and organised and the other course was less-organised and less-structured. CeMBA stands for the Commonwealth Executive Master of Business Administration. This is a collaborative programme between the Commonwealth of Learning (COL) and open universities in Asia. Data was obtained from LMS from two courses selected for this study. Both courses had a significant difference in terms of the level of structure in the course material presentation. The courses were: Project course and an Operation Management course. Both courses were taught in the January semester 2011 running from January of 2011 to June of 2011. A total of 117 students enrolled in the Operation Management course and 45 students were enrolled in the *Project*. Since the *Project* is the prescribed last course that CeMBA students take before graduating, the course requires pre-requisites compared to the *Operation Management* course, hence, the enrolment is generally small. The Project is designed to be more content dependent, less-structured and student learning is mainly self-guided in the LMS, although a project supervisor is assigned. *Project* is inherently less-structured as the objectives require the students to synthesise the various bodies of knowledge from the previous courses and demonstrate soft skills such as critical thinking in completing the final project report. The Operation Management course was presented in a more traditional wellorganised and well-structured. In the Operation Management common resources are included within each study unit/ tutorial in a folder that contains additional summaries/notes in presentation files and documents, hyperlinks to relevant external websites, online quizzes and other online activities, is tutor-guided, TMAs, sample of TMAs, and all necessary information pertaining to the course are included. On the other hand, resources presented in the Project contain only a folder for download which has information about conducting a final project. Layouts of LMS main page of both courses are shown in Appendix B.

To measure tardiness, we look into students' TMAs submissions for the semester. We defined that total tardiness is the number of TMAs submitted after the due date, hence considered late, to be divided by the total number of TMAs submitted. The *Project* course had 3 TMAs as opposed to the *Operation Management* course which had 2 TMAs. On another construct for this study, we adapted Oliver and McLoughlin's (1997) and Wu and Teoh's (2007) framework for analysis of interactions, in which we

define the five dimensions of interaction as shown in table 1. We characterised and coded the students' interactions in the asynchronous forums (announcements from course coordinators, announcements from tutors, public forum, general group discussion, etc).

Dimension One: Social	We looked for any discussions of social or personal greeting not directly associated with the course. For example, "Greetings! I am Janice Oh and I am new to WOU", "Hi, nice to meet you all in this forum" etc.
Dimension Two: Procedural	We defined the procedural interactions as any communication related to administrative procedures/ issues for the course. Some examples of this would be: "When is the TMA1 due?" "Can I get an extension for my TMA2, because I am going overseas for assignment", etc.
Dimension Three: Expository	Here, we defined any request that involves some demonstration of knowledge and facts which may or may not require further explanation. For example, "Operation Management is derived from the operation aspect of business", "What do methodologies in a study look like?", etc.
Dimension Four: Explanatory	We defined any discussions on the topic for the course as explanatory when there is a need for explanations or elaborations of certain ideas/theories/ concepts. For instance, "What are the pros and cons associated with working with small sample population for the study?", "Can you elaborate on the concept of variables, how to define it in a study?", etc.
Dimension Five: Cognitive	We defined cognitive discussions as those that require feedback and commentary via critical thinking that would lead to knowledge gains between the students, CC, or tutors. Example would be "I know the literature review is the part where we review the available or related literature on my topic, but how can I find or locate good reference articles in our library? And, if our library doesn't have the articles or books where else might I find them? ", etc.

Table 1. Five Dimensions of Interactions

To add to the body of data for this study, we conducted an end-of-semester Student Opinion Survey to students in both courses, giving them opportunities to respond to open-ended questions in addition to pre-coded questions. Students were asked "In your opinion, what were the good features of the course and why?", "In your opinion, what were the poor features of the course and why?" At the end of the questionnaire they were asked "How could this course be improved?". The survey was conducted online where students from both courses were informed about the survey through announcements from the Course Coordinator (as one of this study's authors is course coordinator for both courses) in LMS as well as through an email message sent through student email to remind them about the survey. The findings and results for this study were reported in following session.

VI. Findings and Results

Descriptive statistics were used to summarise the study findings. The details of students and course information are summarised in Table 2.

General Information	C1	C2
Course Title	CeMBA Project	CeMBA Operation Management
Type of Structured in LMS	Weak-structured / less informative	Well-structured/ very informative
Number of students	43	117
Rate of Participation (No. Online/No. Enrolled)	25/43 = 58%	21/117 = 18%
Average postings (No. of postings/No. Enrolled)	170/43 = 4.0	72/117 = 0.6

Table 2. General Information about the Two Courses.

The number of students for C1 is much smaller than C2 due to the nature of the program, as C1 is the final capstone project for students who are near to the end of the programme, either of the last two semesters for the degree in Commonwealth Executive Master of Business Administration. In this study, we considered the percentage (%) as opposed to the absolute value (number), for comparison purposes in this study. As explained in previous section, C1 is a less-structured design and less informative while C2 is well-structured design and very informative in nature.

In the Rate of Participation, C1 shows a high participation rate of 58% which means that 58% of all the students enrolled in this course participated actively by posting in the LMS. On the contrary, C2 shows a low participation rate of only 18%. This suggests that C2, being highly structured, facilitates self-learning by the students resulting in a lower rate of participation in the LMS. Conversely, C1 being inherently less structured, causes more students to post in the LMS in order to obtain the directions in which to proceed. The need to obtain clarifications is rooted in the fundamental structure of the CeMBA programme. The programme requires that the students pass in a minimum of 8 core courses which are highly structured before they can enrol in *Project*. The pre-conditioning by the 8 highly structured courses may have created a high uncertainty avoidance mentality in the students when they encounter a less structured course such as C1. This mentality serves as an impetus that drives more students to make postings in C1 to minimise any uncertainty.

In the Average Number of Postings, there is an average of 4.0 postings per student for C1 which is more than 6 times higher than the 0.6 postings per student for C2. The wide difference further supports the notion that a less structured course C1 creates a high uncertainty avoidance mentality in the students. This results in a much larger average number of postings per student.

Q1: Are students less participative in the LMS and hence less tardy in their TMA submission in a well-structured course compared to a weak-structured course?

We hypothesised that students from the C1 course would be more tardy but more participative in their interactions in LMS. The interaction responsiveness we defined as the number of total postings and interactions collected throughout the semester. Table 3 shows the number of postings and tardiness measured by TMA submission.

Participative	C1		C2	
Public Forum Postings	122		57	
Announcement from CC Postings	45		3	
Announcements from tutors Postings	3		12	
Total Participative	170		72	
Tardiness	C1	%	C2	%
TMA 1: No. students submitted on time	4	10%	69	58%
TMA 1: No. students request extension 7 days	28	67%	43	36%
TMA 1: No. students request extension 8 to 14 days	10	24%	8	7%
TMA 2: No. students submitted on time	11	26%	101	95%
TMA 2: No. students request extension 7 days	19	45%	5	5%
TMA 2: No. students request extension 8 to 14 days	12	29%	0	0%
TMA 3: No. students submitted on time	12	29%		
TMA 3: No. students request extension 7 days	11	26%		
TMA 3: No. students request extension 8 to 14 days	19	45%		
Tardiness +7 days	58	46%	48	21%
Tardiness 7 to 14 days	41	33%	8	4%
Total Tardiness	99	79%	56	25%

Table 3. Number of Postings and Tardiness in TMA submission

This finding indicated that C1 students have a high ratio of postings (170) compared to C2 which recorded 72 postings. The results imply that the C1 students are perhaps *more uncertain* or *need more guidance* during their course and are communicating with their peers, tutors, and course coordinator, hence, the students are using the LMS and postings are considerably higher in comparison to the C2. In the tardiness construct, the result shows that C1 students have the tendency to be late in submission of their tutor-marked-assignments, which is three times tardier than C2 students.

Q2: What is the form of interactions, in the context of the five dimensions, in a well structured course compared to a weak-structured course in the online discussion forum?

To answer this question, we have adapted Oliver and McLoughlin's (1997) and Wu and Teoh's (2007) framework in analysing C1 and C2. Table 4 shows the dimension of interactions in between C1 and C2.

Table 4. Dimension of Interaction

Five Dimension of Interactions	C1	%	C2	%
1. Social (e.g. Welcome Message, not directly related	5	3%	2	3%
with course content)				
2. Procedural (Learning Obj/outcomes, assessment tasks,	95	56%	12	17%
requirements and administrative issues)				
3. Expository (Demonstration of knowledge without much further elaboration)	15	9%	7	10%
4. Explanatory (Elaborate explanation on knowledge and developed content based on learner's response)	16	10%	29	40%
5. Cognitive (constructive feedback and commentary on course content via critical thinking which leads to knowledge development)	39	23%	21	30%

The findings highlighted that C1 students are high in procedural activities such as administrative issues and assessment requirements related to the course. At the same time, this may also imply that they are very dependent on the LMS and their tutors/supervisors, and course coordinator to gain knowledge from the course. Students in the C2, however, are mainly reflected in the explanatory dimension, which may indicate that they are exploring and elaborating the knowledge. It appears that C2 students are more independent and concentrate on gaining knowledge in the course, which may imply they are self-confident in term of the course content presented in the LMS hence require less administrative support.

Q3: What differences exist in the students' interaction pattern in LMS between a well-structured course and a less-structured course?

In this question, we looked into ratios of participation of both C1 and C2 by using LMS to determine their interaction patterns. Using LMS records, we examined the amount of activities and interactions which we characterised into (1) static page, (2) folders of course materials, (3) public forum postings, and (4) announcements from CC Postings. Table 5 shows an analysis from the log activities of C1 and C2.

		C1			C2	
Distribution of use of LMS feature	А	В		А	В	
		No.	%		No.	%
Static Page (CC Profile) Viewings	64	26	24%	119	49	26%
Folders of Course Content Viewings	283	43	39%	359	117	61%
Public Forum Postings	127	23	21%	67	21	11%
Announcement from CC Postings	43	17	16%	5	4	2%

Table 5. Analysis of students' participation in LMS activities

Note: A = # times students viewed or posted in the LMS B = # students viewed or posted in the LMS

About 61% of student activities were focused on LMS folders for course materials in C2, compared to C1 (39%), as the folders of the course content is the most useful information for students is located in the folders. The course content in the folders in C2 is related to the questions posed in the TMAs. On the other hand, the TMAs in C1 do not contain any questions as these consist of the students' individual draft research proposal and the drafts of the first four chapters of the final project report. The presence of specific questions in C2 and the absence in C1 suggests that the former is well-structured while the latter is less-structured. This difference in structure is contributory to the fact that the TMA submission for C1 is about three times more tardy than C2.

However, it is noticeable that there is a vast difference in terms of the percentage posting in announcement from the CC between C1 (16%) and C2 (2%). This may be an indication that C2 students are more independent compared to C1, where C1 students need more guidance and assistance from the Course Coordinator compare to their counterpart.

Form the survey, we also analysed some responses from open-ended questions. Students from both C1 and C2 were asked to comment what were the good features of the course. The C1 students and C2 students' responses to this question included:

C1 responses:	C2 responses:
"I enjoy other course except for Project course. As my opinion, I can't identify what is the good features for the Project course" "The course enables the students to apply what they had learned"	"It let me know more detail on the quality management such as what is TG, OPT and how to improve productivity through quality and etc. All of this very useful in my working life as our corporate are very particular on lean management"
"It gives me a basic idea of what research is all about"	"Covering various aspects comprehensively" "Good and useful content. Excellent tutor" "Very straightforward." "The theory apply"

When students were also asked "What were the poor features of the course", answers included from C1 and C2 students' feedback included:

C1 responses:

"poor supervisor support"

"Time constrain to complete to project" "When the university introduced the ecourse materials it has caused the university to go forward ICT savvy but to the expenses of the more conventional students whom are used to hard copies of the course materials and made some of them believed as if the university had cheated on them since they have to print C2 responses:

"The course materials are some how not well organized in the perspective of its content structure. The contents are relatively lacking in Unit 4. Fortunately, the supplementary notes from CC had been very handy and helpful to deliver the same message."

"Too focused on course materials. Need more examples from current news or occurrences." "No much practical examples samples" "In addition, there are less reference books in the hard copies themselves."

"Course materials is not fully supported what the student looking for. Some course materials contain errors & make student confused."

"Library do not had sufficient resources for conducting research project. For instance, I need to go to USM to look for share price data. Some more the subscriptions of the e-journal is limited. Some articles that is relevant cannot be access at all."

"There are some loopholes in the Project Guideline."

"Course co-ordinator must give clear instruction to tutor to guide student rather than both parties keep on pushing responsibility to each other. Very frustrating to call here and there during office hours!" the library."

"Notes given in CD. Difficult no navigate the notes through the CD. Prefer printed notes"

The last question we asked was "How could this course be improved?" C1 and C2 students' feedback included:

C1 responses:

"More structure system, force it down on both the student and the supervisor." "Definitely a better CONCISE instruction manual for candidates"

"It is suggested to compile all the necessary guidelines so that the students have a better understanding on the subjects"

"Finalise course guideline for TMA and project before published instead of keep on changing and publish in LMS. FYI, not all students always refer to LMS for information updating."

"Guideline should provide more detail information, or maybe we should have a portal that summarize the information discussed in the portal, so the students do not need to spend too much time to read and combine all the relevant information again and again." C2 responses:

"more real cases should be presented"

"It may be improved by providing more related links to the particular course modules, and also the tutors can narrow down the scope and their expectation so that learners can get the right direction to explore the TMAs' questions scope"

"Post more case study and successful examples in the public forum, especially explanation on the technical terms likes Six Sigma and etc."

"The TMA should be broken down to 4 (one for each month) at 10 % each (if possible). Breaks into Part A, 1 case study question (5%) and Part B, 3 question for 5%.Just a suggestion."

Overall, the results of above questions suggested that students found the C1 is poorly structured and information posted in LMS are constantly changing which cause inconveniences for some students. Many students in C1 felt that although the course enables them to apply what they had learned throughout the programme, the

limitation appears to be the *lack of information, errors in guideline, un-finalised course guidelines,* and *constant changes in guidelines causing confusion* are among the issues students pointed in the survey. On the C2 comment, students' criticism mainly focused on theories or application on expanding knowledge on knowledge learned on certain rather than content or structural related matters. These students' comments either positives or negatives are valuable for improving the teaching quality in ODL environment because these responses identify some weakness of current structural setup on both courses. Furthermore, these comments provide some clues for future ODL research in designing structured and unstructured learning content. To some extent, active student LMS participation is a matter of students being comfortable with the medium. In this case, C1 students having difficulty in getting supportive information from the LMS and the involvement in forum interactions were comparative high.

VII. Conclusions and Recommendations

In conclusion, students in the well structured and organised course content in LMS felt less anxiety and more independent to navigate the LMS resulting in higher motivation and enjoyment, as evidenced by submitting their TMA less tardy compare to students in weak structured and less organised course content. Similarly, students who are actively participating in the online forums were those that are finding the course content insufficient (weak structured or less organised) resulting more interaction in LMS which lead to late in TMAs submission. Evidence of high involvement of the course coordinator in procedural interactions such as involved explanations about course related procedures, requirements and other administrative issues in the forums for weak-structured course content design than for the well-structured course content.

The study provides an initial research model that may be expanded and generalised for future ODL studies on the impact of structural design on students' homework submission. Our study is also one of the few studies that identify underlying factors that affect students' tardiness in submission their homework in distance learning environment. Although the limitation of only a simple study like this cannot prove "causality", this study did evidence that in distance education environment, learners need a well structured, well organised and informative course content for them to be self-guided, self-explored, and independent for continuity of learning, thus resulting less tardy in submitting their TMAs. Future research is needed that looks at a much larger data set such as comparison from multiple open universities and add additional contextual variables such as students' learning styles as a new factor into the structural course content design. It is also desirable to redesign this study to further explore the measures of motivation and enjoyment of learners in relation to tardiness in submitting their TMAs.

To reduce the tardiness in the submission of TMAs in an inherently less structured course such as C1, our recommendations are as listed below:-

(1) A welcome posting in LMS by the course coordinator detailing the differences between C1 and the highly structured courses. These differences include:-

- (a) No tutorial classes in C1 whereas there are 5 tutorial classes in the well structured courses.
- (b) No units or chapters of study material whereas there are 5 units of study material corresponding to the 5 tutorial classes in the well structured courses.
- (c) No fixed questions in the TMAs in C1 whereas the opposite applies for the well structured courses.
- (2) A framework of the course assessment in table form posted in LMS to explain the difference in assessment between C1 and the well structured courses.
- (3) C1, *Project*, being an individual research by the student necessitates individual meetings with the supervisor. Hence the absence of tutorial classes which the students are pre-conditioned to. To assists the students in less structured courses, we recommend having at least 2 tutorials at the beginning of the semester where the students attend classes to revise on the fundamental concepts such as literature review, research methodology etc. The inclusion of the 2 tutorial classes serves to add structure to *Project* and bring a sense of familiarity to students pre-conditioned to well structure courses.

VIII. References

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Appendix A

My courses 🖂	Topic outline	Latest News
😴 BBM102/05 Microeconomics	BPA503/03 Development Planning and Administration	(No news has been posted yet)
BBM103/05 Principles & Practice of	Important TMA Announcements	Upcoming Events
Management	Online Assignment Submission Guide	There are no upcoming events Go to calendar.
DBM202/05	Latest OAS Guide for student	
BBM203/05 Business	Cal Latest Student Guide for Online Assignment Submission	Calendar
Statistics	Curline Assignment Submission System	◀ July 2011 ►
BBM205/05 Business Accounting I	Turnitin Guide	Sun Mon Tue Wed Thu Fri Sat
g BBM206/05 Business	Quick guide on how to proste a student profile and appoint in Turn it in	3 4 5 6 7 8 9
Accounting II BBM207/05 Human	Guick guide on now to create a student prome and account in furn-term	10 11 12 13 14 15 16 17 18 19 20 21 22 23
Resource Management	Quick guide on how to access and enroll in a subject class portfolio in Turn-It-In	24 25 26 27 28 29 30 31
Cost & Management Accounting	Quick guide on how to submit assignment to Turn-It-In for originality checking	🐁 Global events 👗 Course events
BAC303/05 Accounting Information Systems	Quick guide on how to retrieve and read Turn-It-In's Originality Report	🐥 Group events 🔺 User events
BAC304/05 Company Law	Turnitin - Promoting academic integrity and excellence in writing (Brochure)	Section Links
BAC306/05 Advanced Financial Accounting &	• Turnun PAQ	12
Reporting	ANNOUNCEMENTS	Search Forums
Management and	Weitwining Leater from Course Coordinator	Go
Analysis	8 Announcements from Course Coordinator	Advanced search (2)
Management	8 Announcements from Tutor	
BBF307/05 Business of	Important Notice on Internet References/Links	
Banking BBF308/05	AP Public Forum	
International Financial	@ General Group Discussion	
Management T BIS301/05 Data	8 ² Tutorial 1	
Warehousing &	er Tutorial 2 PP Tutorial 3	
Knowledge Management	8 ² Tutorial 4	
Management	& Tutorial 5	
BLC303/05 Supply Chain Management	1 SUPPLEMENTARY COURSE MATERIALS AND RESOURCES	
DLC307/05 Inventory Management	Course Overview	
BMG301/05 Services	Tutorial 1	
UBMG304/05 Strategic Human Resource	Course Materials	
Management	Tutorial 2	
Introduction to	Course Materials	
International Business	Tutorial 3	
BMK301/05 Consumer Behaviour	Course Materials	
🖞 BMK303/06 Sales &	Online Activities	
Distribution Management	Tutorial 4	
Research	Course Materials	
BMK308/05 Strategic Marketing	Online Activities	
BCS201/05 Law and	Tutorial 5	
Practice of Meetings	G Course Materials	
Human Resources		
BAC501/03 Accounting	ASSIGNMENT FILE, SELF-TEST AND ONLINE QUIZZES	
and Finance BBM521/03 Research	G Tutor Marked Assignments (TMAs)	
Methods	🥝 Specimen Examination Paper	
Commerce		
DMK501/03 Marketing		
Management BMG521/03 Strategic		
Management		
BMG541/03 Disaster Management		
BMG551/03 Project		
Management		
BPA502/03 Public Policy		
Ø BPA503/03		
Development Planning		
and Administration		
and Administration DBM601/06 Project BPA601/06 Project		

You are logged in as TUNG LAI CHENG - (Logout)

Appendix B

Final Project Course (weak structured and less informative)



Operation Management Course (Well structured and more informative)

