

# The Learning Management System at the Defence University: Awareness and Application

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## Abstract

This brief paper examines the issues of awareness and application of a Learning Management System (LMS) used at the National Defence University of Malaysia (NDUM), Kuala Lumpur Malaysia. The paper argues that due to the discouraging responses from academics at the university on using the LMS, proactive measures must be taken immediately in order to arrest the situation. While most academics at the defence university can be categorised as Digital Natives, the reality does not reflect the enthusiasm of them to utilise new technologies. The discussion in this paper revolves around the concerns that stop academics to include the LMS in their teaching and learning repertoire. Data were obtained from observations on the use of the LMS and the number of participants who enrolled for the training of the LMS. This paper argues that due to the lack of organisational and structural support, academics at the NDUM may have reservations about using the LMS.

**Keywords:** LMS, defence university, new technologies, e-learning, simulations, critical agenda projects

## 1. Introduction

A Learning Management System (LMS) refers to the platform of operating online content and courses. Bates and Sangra (2011) claimed that LMSs are the main driver of e-learning in tertiary education. This is because about 90% tertiary providers in the United States have LMSs (Lokken & Womer, 2007). In Malaysia, LMSs are also widely used in public and private higher learning institutions. Some tertiary providers in Malaysia prefer to use open source platform of LMS such as Moodle. Universiti Teknologi Malaysia and Universiti Malaysia Sawarak are two public universities that utilise Moodle. As for the National Defence University of Malaysia (NDUM), its LMS was purchased at the end of 2009 from a private vendor.

The purchase of the LMS at the NDUM was driven by several factors. The most important one was the National Higher Education Strategic Planning which was launched in 2007. This planning has outlined e-learning as one of its Critical Agenda Projects (CAPs). This suggests that all tertiary education providers must equip their institutions with some forms of online teaching and learning. This was then further strengthened by the launch of the National e-Learning Policy in April 2011. While the other more established universities are comfortable adapting themselves to the policy and requirements of the Ministry of Higher Education Malaysia, younger universities such as the defence university are struggling to measure up to best practices in the country.

This paper attempts to examine the issues of awareness and application of the LMS at the defence university. The main objective is to investigate the scenario of using the LMS by academics. In so doing, this paper is arranged into four main sections including this introduction. The second section reviews the literature on LMSs and the third section analyses the findings and discusses them. The last section closes the paper with suggestions to improve the usage of the LMS and concludes the discussion of this paper. Before further discussion, the next sub sections look at the defence university and the methodology adopted in this paper.

### 1.1 The National Defence University of Malaysia

The NDUM was established as an upgrade from the Military Academy of Malaysia. The change of status in November 2006 marks the shift of focus from just producing *mere* engineers for the Malaysian Armed Forces (MAF) to producing 'intellectual leaders of characters.' After six years of existence, the most important aspect that is still not stable is the teaching and learning component, especially on the adoption of new technologies. Much of this lack of adoption could be contributed to the lack of resources and lack of experience in using new

technologies. A more detailed discussion on this will be found in the third section of this paper. Suffice to say at this point that in order to produce graduates for the MAF, students must be exposed to the use of technology and they must be comfortable using it whenever necessary.

### *1.2 The Methodology*

The paper uses data obtained from the author's observations at the defence university. These are supported by data generated by the Information Technology and Communication Centre and Centre for Academic Development. Both centres are the gate keepers for the LMS and e-learning initiatives at the NDUM; the former is in charge of the technical aspects of the LMS and the latter is in charge of the training of academics in utilising the LMS. The author is able to obtain these data because she is the Head of CAP for e-Learning at the defence university and much of her responsibilities are to report to the top management on the e-learning progress, effectiveness and implications to the teaching and learning environment at the defence university.

## **2. Learning Management Systems**

LMSs allow the education providers to integrate important elements of teaching and learning (Dalsgaard, 2006). The main function of any LMS is to facilitate course management and give students the benefit of having supplementary tools for learning. During its infancy stage, many institutes of higher learning were sceptical about the use of LMSs to assist teaching and learning. The issues involved governance, management and technical supports as well as professional development (Benson & Palaskas, 2006).

### *2.1 WebCT and Blackboard*

The first two popular LMSs were WebCT and Blackboard. An instructor at the University of British Columbia created a "standard Web-based shell or learning management system" or what was then known as WebCT (Bates & Sangra, 2011). WebCT integrated spaces for learning objectives, for developing content, for uploading documents and for testing students using multiple choice questions. Universiti Teknologi Malaysia was once a user of WebCT. Nonetheless, due to expensive licensing and maintenance, the university opted for Moodle in 2004.

WebCT was then bought by Blackboard. Blackboard was founded in 1997 by Pittinsky and Chasen. Blackboard is used by more than 70% of colleges in the United States (Bradford et al., 2007). In Malaysia, Universiti Tun Hussein Onn, a public university, is currently using Blackboard as its LMS (Embi, 2011). Sunway University College in Malaysia too is utilising Blackboard. Out of 20 public universities in Malaysia, it appears that only one university uses Blackboard and out of hundreds of private institutions in Malaysia, only one too uses Blackboard. What this implies is that maybe Blackboard is too expensive and thus it is not prevalent in Malaysia.

This scenario leads to the use of open source which is free such as Moodle. The next sub section examines this.

### *2.2 Open Source – Moodle*

Moodle is fast becoming a dynamic LMS in Malaysia. According to Embi (2011), out of 20 public universities, nine use Moodle as the LMS. In fact, Moodle is the leading open source in North American and European universities (Itmazi & Megias, nd). The factor that drives this is mainly because of the zero implication cost to these higher learning institutions. Other than its free nature, Moodle is attractive because of other aspects explained next. Beatty and Ulasewicz (2007) argued that Moodle is much more interactive than Blackboard. Additionally, most courses offered online use Moodle as a supplementary learning tool. This is supported by Martin-Blaz and Serrano Fernandez (2009) who argued that Moodle as a LMS has helped to reinforce students' abilities and knowledge. They further concluded that Moodle is the best platform for educators to "organise, manage and deliver contents."

In addition, Moodle happens to be an effective tool for evaluation. Suchanska and Keczkowka (2007) further suggested that Moodle changes the roles of educators and students in the classrooms. The teaching and learning becomes more enriched because various multimedia are used. Moodle too is perceived favourably by library officers in a study conducted in Italy (Fontanin, 2008). According to Fontanin, the English course developed to train in service librarians was a success because the platform used to deliver the course is effective.

Given these constructive acceptance of Moodle, one may wonder whether it is suitable for all courses at all levels. The bigger question is whether all higher learning providers can really benefit from using Moodle as their LMS. While much has been argued about this, this paper is focusing solely on a customised LMS purchased from a local vendor and now installed at the defence university. What is happening to this LMS after three years of existence at the NDUM? Should the defence university shift to Moodle? The next section discusses this.

### 3. Findings and Discussion

After three years of purchase, the LMS at the defence university called 'My Online Classroom e-Learning' has not been the *effective* teaching and learning tool as expected. By this, this paper argues on two levels. First, the poor usage of the LMS by the academics and second, the questionable quality of the contents put on the LMS. This paper is only going to concentrate on the first level, which is on the usage of the LMS. The second one cannot be evaluated because of the poor usage of the LMS itself, and that can thus be only applicable after all academics have uploaded at least 20% of their course contents on the LMS.

#### 3.1 Poor Usage of the LMS

It appears that not many academics are aware of the existence of the university's LMS. Based on the observations, their 'ignorance' can be contributed to factors such as refusal to accept new technologies in teaching and their belief that the LMS will totally replace them. This paper argues that these two perceptions can be changed if they are willing to attend the training provided by the university. They will first be introduced to the LMS and shown how easy it is to utilise the platform for their teaching and learning purposes. The training starts with opening an account for the LMS, where they are going to visit the LMS itself online. Figure 1 illustrates the first screen page of the LMS and, log in process begins here.



Figure 1. The snapshot of the LMS at the NDUM

Based on the data obtained, the percentage of academics who attend the basic course of using this LMS is very little, 30%. It must be noted that the training for the LMS is divided into two, for technical staff and for academic staff. The technical staff manage to attend the training on using this LMS. Unfortunately, the academics seem relentless about not attending the training related to the LMS. Throughout the year 2010, training was mostly done for technical staff. A robust effort for training academics started in 2011.

In 2011, four series of training for the LMS were planned and they were executed. Notwithstanding this, the number of turned out was poor. A total of 66 academics attended the training for the LMS in 2011 including professors, senior lecturers, lecturers, tutors and language teachers. In 2012, out of 56 letters of invitation to academics, only 18 came to the training (see Table 1). Although this was the first training of the year 2012 on using the LMS, the trend is alarming. The training was conducted during a working day and during the last week of the semester. Almost 65% of invitees failed to come. What can be initially concluded is that academics may be busy with preparing the students for the final examinations and thus they fail to attend the training. In the previous year, trainings were conducted during the semester breaks as well as academic sessions; and yet, a similar trend occurs. This suggests that the academics themselves choose to be oblivious to the training. It must be emphasised that academics must only attend one basic training of using the LMS and the training is only conducted for one whole day.

Table 1. The Number of Participants for e-Learning Training

Year/Series	Number of Attendees	
	2011	2012
1/2011	16	
2/2011	22	
3/2011	8	
4/2011	20	
1/2012		18
Total	84 (out of 284 academics in 2012)	

Another indicator of a poor response to the LMS is the number of courses that have uploaded materials on the LMS. By definition, uploaded materials are akin to contents. Nonetheless, the author prefers the term ‘materials’ to ‘contents’ since most of the uploaded items on the LMS are notes, power point slides and diagrams. The NDUM has about 380 courses offered to all students in one academic session (two semesters). Since the first LMS training to academics in 2011, only 44 courses have at least one material uploaded and out of these courses, only 28 courses have more than three materials (data captured April 2012). Again, this suggests that even after attending the training on using the LMS, academics are not inclined to use it (taking into account the number of academics who attended the training which is 84 and the number of courses that has at least one material which is 44).

### 3.2 Issues: Awareness and Application

The main issues emerging from the observations and data collection are twofold. First, the issue of awareness amongst academics must be properly addressed. This suggests that the organisational and structural support of the university must attend to aspects such as policies, authorities and administration of new technologies. At the NDUM, the absence of e-learning policy together with the Information Communication Technology policy has been the main key that hinders a widespread acceptance of e-learning practices and ultimately the LMS usage. Without a top down instruction on utilising the LMS, academics are oblivious to the use of it.

Embi and Adun (2010) concurred with the importance of published policies and they found that only eight public universities in Malaysia have a recognised policy on e-learning and their LMS. These universities include Universiti Kebangsaan Malaysia, Universiti Putra Malaysia, Universiti Teknologi Malaysia, Universiti Teknologi Mara, Universiti Pendidikan Sultan Idris, Universiti Utara Malaysia, Universiti Malaysia Sabah and Universiti Teknikal Malaysia.

It is not surprising then that academics do not pay close attention to the importance of using the LMS. It is argued that it is not the matter of under-utilisation of the LMS that is so disquieting, but the fact that students need to have viable learning options and academics should be using the ‘right tool for the right job’ (Beatty & Ulasewicz, 2007). At the end of the day, students will select learning strategies that best suit them. Whether they are open to the use of the LMS depends on the support from academics and quality content in the LMS.

Second, the application of the LMS will be improved only if the awareness of academics is comprehensive. Awareness can be generated in the forms of seminars and announcements through emails and the university’s webpage. After this stage, training for using this LMS must commence starting with the basic going to the advanced skills such as developing e-content. The LMS purchased by the NDUM is SCORM compliance and as such authoring tools such as LectureMaker or Camtasia could be used to develop content for e-learning. Arriving at this stage will require some time since the acculturation of new technologies has yet to begin. The author is optimistic that the defence university is heading towards the right direction in terms of its e-learning adoption. What is needed now is the full force and commitment by the university as a whole to ensure not only a successful adoption of e-learning but also the adoption is effective and efficient.

### 4. Recommendations and Conclusion

Much is needed to be addressed on maximising the use of the LMS at the NDUM. This paper would like to recommend a few strategies that can be adopted by the top management at the NDUM. First, the LMS must be made a compulsory teaching and learning tool. In so doing, academics have no reason to avoid using it. The LMS too must be one of the criteria for job confirmation and promotion. Second, a blue print and master

schedule for e-learning training must be prepared by the Centre for Academic Development. This allows the academics to plan their own training based on the blue print and master schedule. Excuses on avoiding the training will now become intolerable. Third, the faculty and department management should encourage the academics to be more acceptable of using e-learning in their teaching. A good support from all levels in the defence university will also motivate academics to use the LMS.

To conclude, the NDUM is still searching for the best strategies in its adoption of new technologies. On the question posed earlier whether the NDUM should shift to Moodle, the author opines that it is not a practical approach since the existing LMS is yet to be received positively by the academics. The 'My Online Classroom e-Learning' is ready to be used but poor responses from the academics have alarmed the management. It was found that the academics have a few concerns of their own. But the author argues that they actually lack awareness and because of that, the application of the LMS is low. In the new future, the LMS must be made *popular* amongst the academics and students, or else the NDUM will not achieve its Key Performance Index and Performance Indicator for the CAP for e-Learning at the national level.

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