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Students' Acceptance and Experiences of the New Learning Management System (LMS) –Wiseup

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ABSTRACT E-learning Management System (LMS) known as Blackboard, which has been customized as WiSeUp, was introduced at Walter Sisulu University (WSU) in 2008 after its funding partners, Nuffic, realized high failure rate in the Faculty of Science and Engineering Technology (FSET). This study sought to investigate students' acceptance level and experiences of this new learning management system at WSU. It adopted a quantitative research methodology. A convenient sampling of 100 students out of 1169 students from the Faculty of Business Management Sciences and Law (FBML) were selected. The data was analyzed using statistical analysis software known as Statistical Package for the Social Science (SPSS). The results of the study indicated that unavailability of resources negatively affect the level of acceptance of Learning Management System. Time constraints have also been found to have a negative impact on the students' experiences with the LMS. A significant number of students complained about the unavailability of resources whilst acknowledging the role of the institution in trying to provide an excellent support system towards the new LMS. The support system, in this case, includes: qualified staff, E-learning centres, Internet, time and computers. The conclusion that can be drawn from this study is that there was a shortage of learning and teaching technology centres in the campus under study. The study therefore recommends that learning and teaching technology centres should be equipped, at all times, with computers that are connected to the Internet.

INTRODUCTION

A Learning Management System (LMS) is a software package, usually on a large scale that enables the management and delivery of learning content and resources to students. Most LMS systems are web-based to facilitate "anytime, anywhere" access to learning content and administration (Oak Tree Systems 2002). LMS usually allows for student registration, the delivery and tracking of e-learning courses and content, and testing, and may also allow for the management of instructor-led training classes (Staples and Siddon 2004). In the same vein Wikimedia Foundation (2012) defines a learning management system as a software application for the administration, documentation, tracking, and reporting of training programs, classroom and online events, programs, and training content. They further articulate that, a robust LMS should be able to do the following:

- centralize and automate administration
- use self-service and self-guided services
- assemble and deliver learning content rapidly
- consolidate training initiatives on a scalable web-based platform
- support portability and standards
- personalize content and enable knowledge reuse.

Carnevale (2000) concurs with Wikimedia Foundation's definition of LMS as he vies it a software application or Web-based technology used to plan, implement, and assess a specific learning process. He further asserts that a learning management system provides an instructor with a way to create and deliver content, monitor student participation, and assess student performance. In addition, a learning management system may also provide students with the ability to use interactive features such as threaded discussions, video conferencing, and discussion forums. Ellis (2009) advocates that while there are several definitions of a learning management system, the basic description is a software application that automates the administration, tracking and reporting of trainee events. Elis further asserts that a robust LMS should be able to do the following: centralize and automate administration; use self-service and self guided services; assemble and deliver learning content rapidly; consolidate training initiatives on a scalable web-based platform; support portability and standards and personalize content and enable knowledge reuse.

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ADVANTAGES OF LMSs

According to K Alliance Group (2002), corporations and academic institutions often use learning management systems to deliver training online. These systems are typically selected because of their ability to conveniently deliver training to students and trainees online. They further assert that not only are learning management systems convenient, they are flexible and scalable as well and they include comprehensive tracking and course management tools. Class work can be scheduled around personal and professional work. Some of the benefits of LMSs are listed below:

- Reduces travel cost and time to and from school
- Learners may have the option to select learning materials that meets their level of knowledge and interest
- Learners can study wherever they have access to a computer and Internet
- Self-paced learning modules allow learners to work at their own pace
- Flexibility to join discussions in the bulletin board threaded discussion areas at any hour, or visit with classmates and instructors remotely in chat rooms
- Different learning styles are addressed and facilitation of learning occurs through varied activities
- Development of computer and Internet skills that are transferable to other facets of learner's lives
- Successfully completing online or computer-based courses builds self-knowledge and self-confidence and encourages students to take responsibility for their learning (Russo 2010; E.University 2010).

DISADVANTAGES OF LMSs

The following have been identified as some of the disadvantages of LMSs:

- Unmotivated learners or those with poor study habits may fall behind
- Lack of familiar structure and routine may take getting used to
- Students may feel isolated or miss social interaction
- Instructor may not always be available on demand
- Slow or unreliable Internet connections can be frustrating
- Managing learning software can involve a learning curve
- Some courses such as traditional hands-on courses can be difficult to simulate (E. University 2010; Russo 2010).

The objective of this study was to get the students' experiences in adopting the new LMS which is the software that automates administration, documentation, tracking, and reporting of training programs, classroom and online events, e-learning programs, and training content. This LMS was introduced at WSU in 2008 after its funding partners, Nuffic, realized the high failure rate of WSU students in the faculty of science and engineering Technology (FSET). Nuffic, then, suggested that Learning Management Systems could be used to supplement the face-to-face learning. It was then that the Blackboard now known as WiSeUp was also purchased by the institution as a learning management system.

This article therefore endeavors to check the acceptance level and experiences of the students in the new LMS called WiSeUp and to identify challenges if there are any. The level of acceptance in this study can be tracked on how much time students spend on using this LMS, and also on the availability of resources and student perceptions. The level of acceptance can increase if the students can perceive it as easy to use and enjoyable (Thong et al. 2006). Thong et al. further assert that these two user perceptions play the most important role in student acceptance of the new learning management system. The students' experiences can be based on the expectations and attitude towards this LMS. If the students find that WiSeUp meets their expectations, that is, it helps them to supplement their face-to-face interaction and also helps them to have access to their lecture material at any time of the day, then that can also grow the level of acceptance. However, the students' expectations keep updating, growing as they spend much time on the system and gaining more experience from using it (Thong et al. 2006).

The study was conducted at one of the Walter Sisulu University rural campuses. It has been motivated by the nature of the campuses at WSU. Campuses at WSU are scattered from each other. There is one in Mthatha, one in Butterworth, one in East London, and another one in Queenstown. The campus understudy is 34km away from town and there are currently no resi-

dences for students to stay in. Most students take buses everyday from Queenstown to the campus. This LMS requires that students must have computers connected to the Internet, and must have time and resources available.

The Importance of Resources Availability

The level of acceptance of the new learning management system can be determined by the availability of resources. Resource availability specifies how many resources are available at any one time to do a job. The user perception of the system, which determines whether the user confirms the product/service or not, develops after the use or the purchase of the product/service (Steel 2006). In the event where resources are not available, the product/service may not be confirmed and the user may not have experience about that particular product/service. For example, if computers (Resources) are not available whereas WiSeUp system (Product) is available students cannot gain any experience and neither can they perceive any usefulness nor enjoyment of the system.

Needless to mention or list resources that are needed, resources depend on individual needs. But it is imperative for this study to list, but not limit, the basic resources that are needed in LMS such as: e-learning centres known as learning and teaching technology centres, computers, Internet, people and time. Any of these resources is important. The need for the university support system in providing all these resources is of paramount importance especially the provision of computers connected to the internet, E-learning facilities and many more. Universities can play a salient role in providing computer facilities and laboratories to enhance the initiative of learning management systems. Selim (2007) mentions University support factor, in his study about Critical success factors (CSFs) for e-learning acceptance, as second wing of the technology factor. Hence university support system is essential in ensuring availability of resources. The last three of eight categories for e-learning CSFs which are: 1. Ease of on-campus internet access, 2. Effectiveness of information infrastructure, and 3. University support of e-learning activities are important in addressing the question of resource availability (Carnevale 2000).

Students Experiences on the Use of LMS

This was mainly to check the attitude, expectations and perceptions of the students towards the use of learning management system as well as their exposure to computers. The experiences of students in the use of LMS can confirm or refute the continued use of LMS and it can also increase the level of acceptance. If the students are satisfied with the LMS, there is likelihood that they can market it by telling other people about it. If the attitude of the students towards the use of LMS is positive, that will have an impact on the high level of acceptance of the LMS. According to Govender (2010), the attitude shown by students towards a mixed learning mode of instruction is a positive trend towards the acceptance of LMS, changing the unilateral way of learning mode into mixed learning mode of instruction. The mixed learning mode of instruction is the combination of LMS and face-to-face mode of instruction (Govender 2010). Attitude can help one in this transformation and transition of learning mode. McGill and Klobas (2008) hypothesized that attitude towards the use of LMS has an influence on the level of LMS utilization. It is therefore important to check students' attitude towards the use of learning management system and not towards learning management system. Many researchers such as McGill and Klobas (2008) feel that it is important to measure attitude towards the use of an object rather than the object itself.

It is also important to check the students' expectation of the system as it contributes to the experience students have with LMS. A positive attitude will lead the students to continue using the learning management system and that will make the system to be viable and usable which will help them to have better experience (Thong et al. 2006). The attitude of the students towards this learning management system will then reflect their level of security and confidence with it and they will use it with all confidence and they will feel secured in using it (Derouza and Fleming 2003). Another important aspect is the perception of the students towards the system. If the students can perceive it as useful to their studies then they can make use of it (Thong et al. 2006). The acceptance attitude of this learning management system is based on the perception of the usefulness, usability of the system, and also on the result demonstrability (Karahanna et

al 1999). If the system is not usable it can result in low usage, which is an underlying factor in destroying many organizational investments in information technology (Venkatesh and Davis 2000).

Expectations play a salient role in the acceptance of an LMS and the satisfaction of a user. Thong et al. (2006) cites that users' expectations are confirmed when that particular product/service performs as expected. If the expectations of the students on LMS are not met, this may result in poor usage of the LMS. It is against this background that the researchers sought to establish the level of students' acceptance of this new learning management system as well as their experiences, expectations and perceptions.

METHODOLOGY

The study adopted the quantitative research methodology. A convenient sampling of 100 students out of 1169 students from the faculty of business management Sciences and law (FBML) were selected. These students were randomly selected. Questionnaires were distributed to students who participated in the survey. Participation was voluntary and participants' personal information was not divulged. The data was analyzed using statistical analysis software known as statistical Package for the Social Science (SPSS). This is mostly used by market researchers, health researchers, survey companies, government, and many more.

Validity and Reliability

All participants were informed about the research study in a way that was assumed to be clear and understandable to them. The research questions were formulated clearly and presented to the respondents in written form to avoid ambiguity.

Ethical Issues

Subjects in this study participated voluntarily. Names of participants remained anonymous and all the information received from participating students was treated as highly confidential. The significance of the research study was clearly explained to the participants. The participants were also afforded an opportunity to ask questions. In this research study, participants were made aware of their right to withdraw if they so wished. The established agreement did not place participants under the obligation to continue participating in the project if they were no longer interested. All participants in any kind of research should have the right to confidentiality. The researcher assured the participants that sensitive data was to be held in the strictest confidence in order to protect their anonymity. The research was therefore conducted with respect and concern for the dignity and welfare of the informants. The individual's right to decline to participate was respected in this study. The researcher ensured that the purpose and activities of the research were clearly explained to the participants. The author of this document ensured that promises and commitments were honoured by safeguarding participants' identities.

STUDY FINDINGS

Exposure to Computers

It is imperative to check the exposure of students to computers before they became enrolled to WSU so that we may know the kind of students we are dealing with. The researchers surveyed students on exposure to computers whilst they were still in high school. This is informed by the fact that some students have been exposed to computers whilst they were still in their high schools. Govender and Govender (2010) postulate that if students lack technological mastery, this would adversely affect their usage of LMSs. Table 1 shows the results of the survey.

Table 1: Did you have computers in your high school? (n=100)

	Frequency	*Percent*
Missing	3	3.0
Yes	38	38.0
No	59	59.0
Total	100	100.0

From Table 1 it is clear that most of the students from "WSU feeder schools" did not have computers, which could have an impact on their attitude towards the new learning management system as this would become totally new in their lives. This poses a challenge on the role that the institution should play to help those high schools

that are feeding it to provide students that are technologically motivated. Most tertiary institutions are being revolutionized in the area of learning and teaching through technology, therefore, it is important that students be geared towards LMS (Baldwin 2002).

Availability of Resources

The survey was also conducted on the availability of E-learning centres known as learning and teaching technology centres. Table 2 shows the results.

Table 2: The e-learning centres are available for students (n=100)

	Frequency	*Percent*
Missing	13	13.0
Strongly disagree	29	29.0
Disagree	18	18.0
Not sure	13	13.0
Agree	12	12.0
Strongly agree	15	15.0
Total	100	100.0

The conclusion that can be drawn from Table 2 is that there was a shortage of learning and teaching technology centres in the campus under study. According to the study conducted by CLTD of measuring computer-student ratio, the results indicated that one computer could be used by six students (that is, approximately 1:6) in the campus understudy. The role of the institution has been identified as a contributing factor in ensuring the availability of resources. It was then prudent for this study to investigate the role of the institution in making sure that there were resources in place and to ensure that students got the necessary support system to enhance their understanding of the learning management system. The support system offered by the Institution, in this case, include provision of computers connected to the internet, accessibility of computers, learning and teaching technology centres, and support staff assisting in those centres. The results are shown in Table 3.

This was mainly to find out how students viewed the role the institution in ensuring that the campus under study provides necessary support system for the students to better understand LMS. According to Table 3, 31% of the student agreed that the institution has excellent support systems that enable students to enhance their understanding of LMS technology. According to these results, it is clear that students do acknowledge the role of the institution in this matter. This shows that the institution was doing its best to meet the needs of the students although a lot still needs to be done.

Table 3: The institution has an excellent support system to enable me to enhance my understanding of LMS technology (N=100).

	Frequency	*Percent*
Missing	12	12.0
Strongly disagree	10	10.0
Disagree	15	15.0
Not sure	25	25.0
Agree	31	31.0
Strongly agree	7	7.0
Total	100	100.0

Students Experiences in the Use of LMS Learning Management System

The themes to be investigated were, how do students perceive LMS in their academic performance? Are they aware of its usefulness to improve their academic performance? If students perceive learning management system as useful to them then that may determine that their experience of the learning management system is a positive one which may lead to high level of acceptance. An investigation was conducted and results are shown in Table 4.

Table 4: I am aware that the use of this LMS can improve my academic performance (N=100)

	Frequency	*Percent*
Missing	6	6.0
Strongly disagree	5	5.0
Disagree	5	5.0
Not sure	36	36.0
Agree	26	26.0
Strongly agree	22	22.0
Total	100	100.0

The idea was to establish whether students were aware that this learning management system is placed to enhance their academic performance rather than being seen as a threat to their academic performance. Table 4 provides us with the necessary information. From the results it is clear that some students were not aware of the LMS as a resource that can improve their academic performance whereas other students are

aware. Some of the students were not sure whether this could improve their academic performance or not. Accordingly this could be interpreted as if students have not been told about the benefits of using this learning management system.

With all the features that this LMS comes with, it has been found imperative to look at the level of usage of this learning management system by those who are trained on it. The study wanted to establish if students had used LMS – WiSeUp ever since they were trained on it (Table 5).

Table 5: Have you ever used LMS-WiSeUp ever since the training? (N=100)

	Frequency	*Percent*
Missing	7	7.0
Yes	25	25.0
No	68	68.0
Total	100	100.0

Looking at Table 5, 68% of the respondents have never used this learning management system. They have been trained on it but never used it. These results can be a bit disturbing as regards the future use of this LMS.

DISCUSSION

According to this study, many students who were admitted to the campus had not done computer courses in their high schools. Students with such a background at times tend to have progression difficulties, when exposed to new things. This view is supported by Buzzetto-More and Sweat-Guy (2006) whose study found that most students came to college less technologically prepared, however the use of e-learning was slowly rising in popularity with student perceptions of online learning viewed positively. The learning management system has been introduced at WSU. This is refuted by the study conducted by Carnevale (2007) whose results indicated that students were exhibiting strong preferences for the hybrid learning model. This current study also observed from the questionnaires that students were ignorant about the new technology in their campus. There are some students who knew nothing about this new learning management system, yet it has been advertised all over the campus for example E-Learning administrators do wear T-shirts advertising the learning management system and its URL to make sure that it is visible to everyone. Some of the students knew nothing about the existence of the WiSeUp on their campus. This, therefore, questions the effectiveness of the advertisement of the system to the students.

Lack of Resources Leads to Poor Acceptance and Utilization of LMS

It is important to note that students may not be aware of the resources available in their campus if they have not been oriented, or they may know about them but not use them. It may be noted that the only time students had access to computers is when they were at school or around the campus, otherwise the Internet would have to be accessed from the Internet café. Many of these students could not afford the money to go to the Internet cafés. And at the same time even the campus does not have enough learning and teaching technology centres for all the students. This is contrary to the findings of a study conducted in the fall of 2005 of 748 freshmen students at two Historically Black Colleges and Universities (HBCU) (Buzzetto-More and Sweat-Guy 2007) which found that most students attending HBCUs come to college with most of them owning computers, having Internet access, having studied computers in high school, and considering themselves to be intermediate computer users. As a result, such students do not struggle because they have been exposed to technology before. Although the institution has managed to buy WiSeUp system, if students cannot have access to it, it does not help to address the problem. WiSeUp is accessed through the Internet and students have little time to access it due to limited time they have around the campus.

The students' experience of the learning management systems had been so poor that some of the students have never used LMS ever since they were trained on it. Some students feel that this LMS has come to expose them of their computer incompetence. This as well encourages the development of a negative attitude which will lead to low levels of acceptance. In support, Sanders and Morrison-Shetlar (2002) cited the importance of student attitudes toward technology as a significant determining factor in the educational benefits of online learning resources and experi-

ences. In another study, Sanders and Morrison-Shetlar (2002) examined student attitudes with regard to the Web-enabled learning component in a general biology course for undergraduate non-majors. Their results showed a positive effect on student learning, problem-solving skills, and critical thinking skills, with females responding more positively than males. Derouza and Fleming (2003) compared undergraduates who completed quizzes online with students who took traditional paper-based quizzes and found that the marks revealed that students who took the quizzes online significantly outperformed students who took the pencil-and-paper quizzes. So there is need for the University understudy to make sure that its students utilise LMSs in an endeavour to improve throughput rate.

CONCLUSION

This study has established that the availability of resources is very important in the acceptance of LMS. Availability of resources therefore needs to be prioritized in order for LMS to be accepted and utilized effectively. All necessary requirements must be operational and accessible to students. The study has also established that the availability on the campus of wireless network covering a range where students live increases the level of usage of learning management system. The students' experience of the learning management systems has been so poor that some of the students have never used LMS ever since they were trained on it. Some students feel that this LMS has come to expose them of their computer incompetence.

RECOMMENDATIONS

Learning and teaching technology centres must be equipped, at all times, with computers that are connected to the Internet. Each student needs to have his/her PC or laptop so that he/she can access LMS at anytime, anywhere.

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