Measuring the Success of the Learning Management System at the University of Belize Belmopan Campus

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Abstract

Technology has opened a new path for education, allowing it to be more interactive and offering support. This study seeks to determine the success of the learning system "Moodle" at the University of Belize, by using DeLone and Mclean's Information System Success Model. The model encompasses six aspects of information success which include: information quality, system quality, service quality, use, user satisfaction, and perceived net benefits. Our study contributes two dimensions to the model which are: computer self-efficacy and complementary technology quality. A total of fifty questionnaires were randomly distributed to students at University of Belize's Central Campus. Thereafter, data analysis and results revealed that "Moodle" is moderately effective at attaining UB's organizational goals.

Keywords: Information system success, University of Belize, Moodle, Learning Management System, construct.

Introduction

Nowadays it is not possible to think about the teaching and learning process without associating it with the Information and Communication Technologies (ICTs). Actually, ICTs are present in all processes that involve collection of data, processing of information and knowledge creation, being the teaching and learning one of the most typical processes having these characteristics. ICTs play an important role in education, having a special relevance in the instructional component, supported by Learning Management Systems (LMS), such as Moodle. Moodle represents one of the most widely used open-source e-learning platforms, that enables the creation of a course website, ensuring their access only to enrolled students. Modular Object Oriented Dynamic Learning Environment (MOODLE) was developed as part of Martin Dougiamas PhD in Education thesis (Moodle, n.d). Zakaria and Daud (2013) indicates, the role of a university has shifted from a provider of knowledge to a facilitator of an environment conducive to learning. Moodle is an Open Source Initiative, which is free, independent to distribute, and modify (Zakaria & Daud, 2013)

This platform allows the exchange of information among users geographically dispersed, through mechanisms of synchronous (chats) and asynchronous communication (discussion forums). In a functional perspective, it has easily configurable features, allowing the creation of student assessment processes (quizzes, online tests and surveys), as well as managing their tasks, besides offering a wide variety of complementary tools to support the teaching and learning process. However, these platforms have many capabilities provided that they are used in their fullness. For example, interaction, feedback, conversation and networking are some of the possible actions using learning platforms. Furthermore, they provide a lot of opportunities to explore new methods of teaching and learning. Particularly, the Moodle platform adopted by the University of Belize (UB) integrates several modules which allow creation, organization, delivery, communication, collaboration and assessment activities.

The present paper analyses the success of Moodle platform at the University of Belize. Additionally, it discusses the results of the study carried out by the University of Belize students from the different Faculties. A quantitative research was conducted with student respondents from the University of Belize, Belmopan campus, to provide actual incitement on their perspective of Moodle. This was done through a questionnaire that was divided in eight sections which are information quality, system quality, complementary technology quality, computer self-efficacy measure, service quality, user satisfaction, use, and perceived net benefits. In this way, the paper intends to contribute to a systematization of the activities and the respective modules provided by Moodle, as well as their importance in the students' perspective.
The purpose of this is to also identify ways in which the system can be improved to increase the perceived net benefits to the students enrolled at UB. The university continues its quest to maximize Moodle's full potential, determine its value and importance, and assess whether or not the system is successful. The objective is to gather information through the use of questionnaires, to analyse how efficient, effective and successful this system is. The results of the survey will provide the management team of the university an awareness on the performance of the system (Moodle) used by educators, staff and students. The outcome of the research will also aid UB's effort in improving business functions and their strategic business objectives.

Literature Review

There has been an exponential growth in the management of systems especially as it relates to the ease of access of information in the technological era, academia and other institutions. “Information and communication technologies have high potential value across all sectors, in both public and private enterprises, and at multiple levels.” (Walsam & Sahay,2002). Information systems are used at all levels of operation to collect, process, and store data. However, it has been noted that these systems were created to facilitate usage and are not being used to its maximum capacity. In most universities E-learning has become one of the most common approaches which is increasingly employed among academic institutions. E-learning can be defined as an approach which uses computer and communication technologies to support and improve learning. Additionally, E-learning is usually based on Learning Management Systems (LMSs), which are also called either course management systems or virtual learning environments (Kakasevski et al., 2008).

In an effort to fully make use of a system, in this case the information system (LMS) of Moodle deployed by many universities in expectation that this system will increase the rate of the flow of information the success must be accounted for. In the article titled “*Information Systems Success Revisited*” by DeLone and McLean, 2002 highlighted that the extent of information systems success or effectiveness is vital to understanding the value and efficacy of IS management actions and IS investments. In order to achieve effectiveness of an information system it is important that the efficiency of the system is in place. In another study in 2002 Heeks stated that the success or failure of an information system depends on the contexts of designer and user which are often distant in physical, cultural, economic, and many other ways, the context of design/production is not the same as the context of use (Heeks).

Moodle as described in *“Online Teaching and Learning in Transition: Learning Management System from Blackboard to the Moodle Faculty Perspectives on Moving”* Moodle is a course management system (CMS) — “a free, Open Source software package designed using sound pedagogical principles, to help educators create effective online learning communities” (Beatty and Ulasewiczz). Moodle is used as a tool where both the lecturers and the students can both access and share information such as assignments, reading materials, projects, grades and many other options. Moodle also has several options for group forum participation. This study revealed that Moodle has a great potential as an information system, however, it is mainly used as a repository of materials.

Students recognize the importance of the use of other functionalities of this platform in order to promote the success of the teaching/learning process (Costa et al.) . This study argues that these platforms have many capabilities if they are used in their fullness. For example, interaction, feedback, conversation and networking are some of the possible actions using learning platforms. They provide a lot of opportunities to explore new methods of teaching and learning. The moodle system also integrates several modules which allow creation, organization, delivery, communication, collaboration and assessment activities (Costa et al.).

Virtual teaching and learning has transitioned from its first inception up to date. The number of courses offered at a distance has grown rapidly. According to the National Center for Education Statistics (Waits & Lewis, 2003), in 2000-2001 more than 56% of four-year colleges and universities in the United States offered distance education degree programs. Moodle is very much an interactive tool for both students and faculty. If a student is not self motivated, or if getting online is considered a challenge or

inconvenience, the use of Moodle will be difficult (Beatty and Ulasewiczz). In contrast, in the study of the Portuguese university results show that Moodle is being used mainly as a repository of materials and information. It notes that students that use the tools typically assign more importance to them, being the difference statistically significant at 5% (except for Forums). It can also be noted that the not so used tools and thus not so important for students, enable the interaction, the collaboration and the real time communication. To overcome the constraints presented it should be taken into account that the successful use of e-learning platforms in the teaching and learning context critically depends on the teachers having knowledge about the tools, being aware of how they should be used and being capable of organizing all the communication process (Beatty and Ulasewiczz).

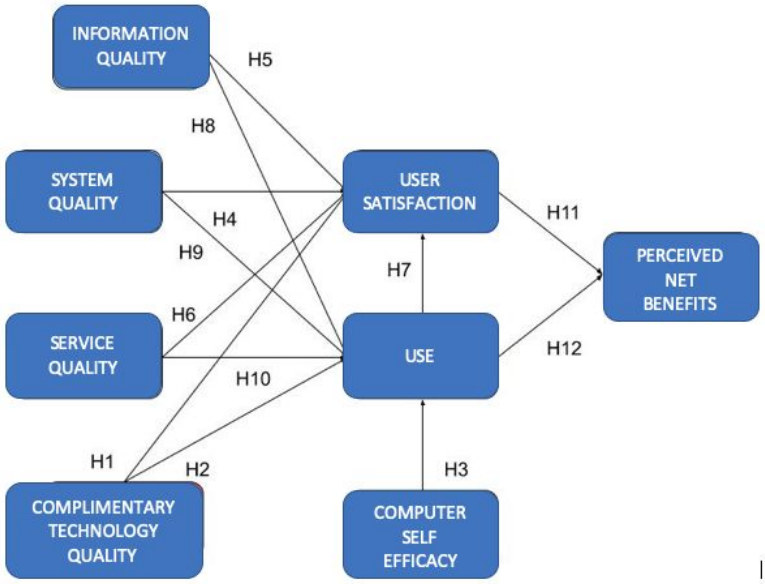
Methodology

In information systems, the University of Belize uses Moodle as a way to conduct and deliver information via online which leads to a success model that enables the university to get access from students or vice versa very quickly. “Many empirical studies supported the updated DeLone and McLean (D&M) model. The findings of these studies provided several important implications for using (D&M) model in research and practice. Also, it encouraged Governmental and Private Authorities to include measures for information quality, system quality, service quality, system use, user satisfaction, and perceived net benefit” (Zaied, 2012).

The following success dimensions were included in the theoretical model: Information quality, which deals with the quality of the information that Moodle provides and how it helps the user to use the system. System quality, which deals with the quality of the system (Moodle) itself. Service quality, measures the degree of the service provided by the system. User satisfaction, deals with the satisfaction of the user by the system.

The information system perceived net benefit is the achievement of an organization and achievement of the user objectives by using the information system (Moodle). This summarizes the benefits the firms and employees gain from using the information system which include quality improvement, cost reduction and delivering and receiving information efficiently. This study focuses on the satisfaction of the user and uses the six updated IS success dimensions.

Model



"The hypothesized relationship between e-HRM system success variables are based on the theoretical and empirical work reported by DeLone and McLean (2003). As they suggest, the success model needs further development and validation before it could serve as a basis for the selection of appropriate IS measures" (Alshibly, 2014). Accordingly, the study Hypothesized the following nine hypotheses tested:

H1. Information quality will positively impact user satisfaction.

H2. System quality will positively impact user satisfaction.

H3. Service quality will positively impact user satisfaction.

H4. Use will positively impact user satisfaction.

H5. Information quality will positively impact use.

H6. System quality will positively impact use.

H7. Service quality will positively impact use.

H8. User satisfaction will positively impact perceived net benefit.

H9. Use will positively impact perceived net benefit.

H10 Complementary technology quality will positively impact system quality.

H11 Complementary technology will positively impact the service quality

H12 Complementary technology will positively impact user satisfaction

H13 Personal efficacy will positively impact user satisfaction.

Construct Measurement

Table 1: Construct questions for questionnaire

Information Quality	IQ1: The INFORMATION system provides information that is exactly what you need IQ2: The INFORMATION system provides information you need at the right time IQ3: The INFORMATION system provides information that is relevant to your job IQ4: The INFORMATION system provides sufficient information IQ5: The INFORMATION system provides information that is easy to understand IQ6: The INFORMATION system provides up-to-date Information	Bailey and Person (1983)
System Quality	SQ1: The INFORMATION system is easy to use. SQ2: The INFORMATION system is user-friendly. SQ3: The INFORMATION system provides high-speed information access. SQ4: The INFORMATION system provides interactive features between users and system.	Alshibly,(2011)
Complementary Technology Quality	CTQ1: The software on the device (desktop computer, laptop, mobile device) used to access the INFORMATION SYSTEM is adequate. CTQ2: The device hardware (desktop computer, laptop, mobile device) used to access the INFORMATION SYSTEM is adequate. CTQ3: The speed of the Internet connection used to access the INFORMATION SYSTEM is adequate. CTQ4: The reliability of the Internet connection used to access the INFORMATION SYSTEM is adequate.	Teece, D. J. (1988)
Computer Self-Efficacy Measure	CSE-1 .... if there was no one around to tell me what to do as I go. CSE-2 .... if I had never used an information system like it before. CSE-3 .... if I had only the information system manuals for reference. CSE-4 .... if I had seen someone else using the information system before trying it myself. CSE-5 .... if I could call someone for help if I got stuck. CSE-6 .... if someone else had helped me get started. CSE-7 .... if l had a lot of time to complete the job for which the information system was provided.	Compeau, D. R., & Higgins, C. A. (1995)

	CSE-8 .... if I had just the built-in help facility for assistance. CSE-9 .... if someone showed me how to do it first. CSE-IO.... if I had used similar information systems before this one to do the same job.	
Service Quality	SV1: The support staff keep the INFORMATION system software up to date. SV2: When users have a problem,the INFORMATION system support staff show a sincere interest in solving it. SV3: The INFORMATION system support staff respond promptly when users have a problem. SV4: The INFORMATION SYSTEM support staff tell users exactly when services will be performed.	Chang et al., (2009)
User Satisfaction	US1: Most of the users bring a positive attitude or evaluation towards the INFORMATION system function. US2: You think that the perceived utility about the INFORMATION system is high. US3: The INFORMATION has met your expectations. US4: You are satisfied with the INFORMATION system.	Seddon and Yip (1992)
Use	U1: The frequency of use with the INFORMATION system is high. U2: You depend upon the INFORMATION system. U3: I was able to complete a task using the INFORMATION even if there was no one around to tell me what to do as I go. U4: I have the knowledge necessary to use the INFORMATION.	Balaban et al., (2013) Rai et al., (2002).
Perceived Net Benefits	NB1: The INFORMATION system helps you improve your job performance. NB2: The INFORMATION system helps the organization save cost. NB3: The INFORMATION system helps the organization achieve its goal. NB4: Using The INFORMATION improves the assessment and training NB5: Using The INFORMATION in job increases my productivity. NB6: Overall, using the INFORMATION enhances recruitment and performance management.	Alshibly,(2011); Tansley et al, (2001)

Sampling and data collection

The data was collected from a sample of 50 students enrolled for semester 2019-2 at The University of Belize, Belmopan Campus. The instrument utilized to the gather responses was “purposive sampling” which allowed the researchers to select respondents based on judgement.

From the 50 questionnaires dispersed, 28% represented males while 72% represented females. Given that the UB population consists of more females, our sample is an accurate representation. Additionally, the majority of the sample are ages 19 to 24, are pursuing an Associate Degree and belong to the Faculty of Management and Social Sciences.

Table 2: Characteristics of the sample

Characteristics	**Number**	**Percentage**
Gender		
Male	14	28
Female	36	72
Age		
Less than 18	7	14
19 to 24	40	80
25 to 31	3	6
32 to 37	0	0
Over 38	0	0
Faculty		
FMSS	37	74
FEA	8	16
FST	4	8
FHS	1	2
Program Level		
Associate	32	64
Bachelor	18	36
Year		
1st Year	6	12
2nd Year	24	48
3rd Year	13	26
4th Year	7	14

Data Analysis:

In this section, our research has switched from basic to applied research in which a hypothesis will not be tested and our results will be presented in the form of eight histograms, each representing a construct from our model and its average response. Lastly, a comparison of the constructs will be summarized through the use of a bar chart which will determine if the learning information system is a success or not.

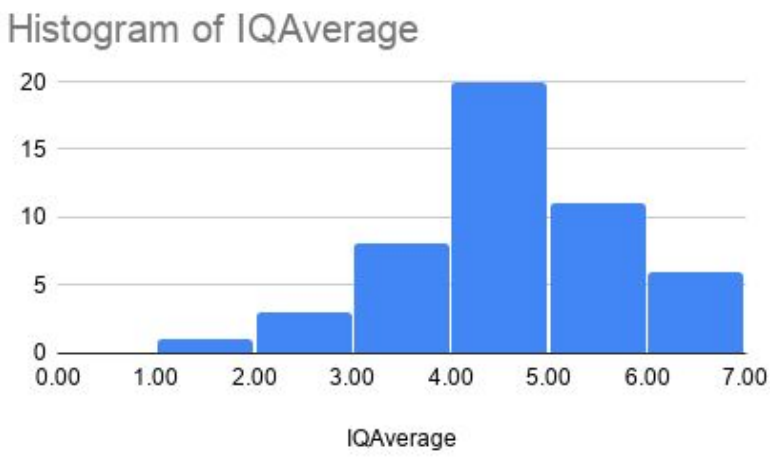


Figure 1: Information Quality Average response

The chart above depicts the UB students perception of the quality of the information system "Moodle". The data shows that the majority of the students moderately agree that the quality of the learning system is effective, a significant amount agrees and strongly agrees that it is effective, and a few are neutral or don't agree that it is.

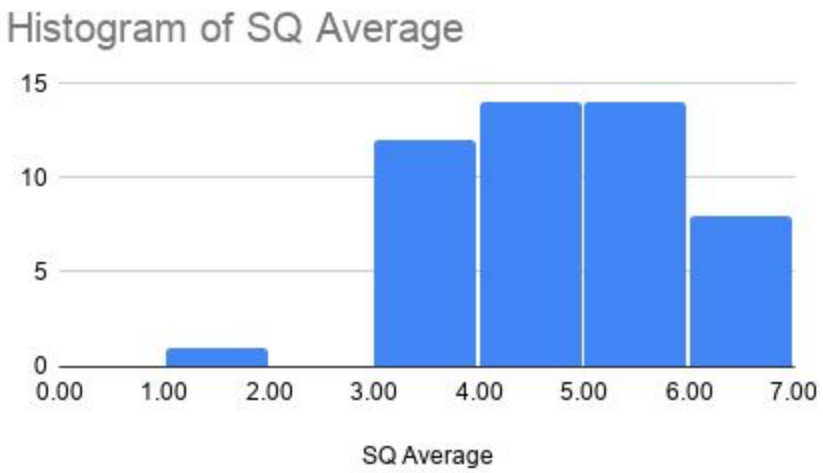


Figure 2: System Quality Average Response

The chart above show the responses of UB students when it comes to the system quality of Moodle. The ratings indicate that UB is doing a good job at maintaining the user friendliness of Moodle as most responses are leaning towards 5 and 6 ratings.

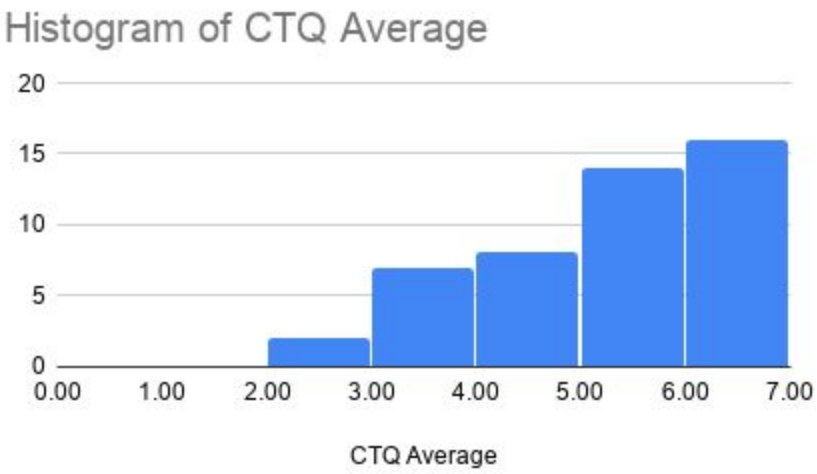


Figure 3: Complimentary Technology Quality Average Response

Figure 3 indicate that most students have a reliable internet connection and a functional device to complement Moodle as most responses lean towards the higher ratings. However, some students are not able to effectively utilize Moodle during their learning experience at UB because of not having an adequate device or internet speed to access Moodle. This is most likely occurring in struggling homes or when the system crashes due to widespread use.

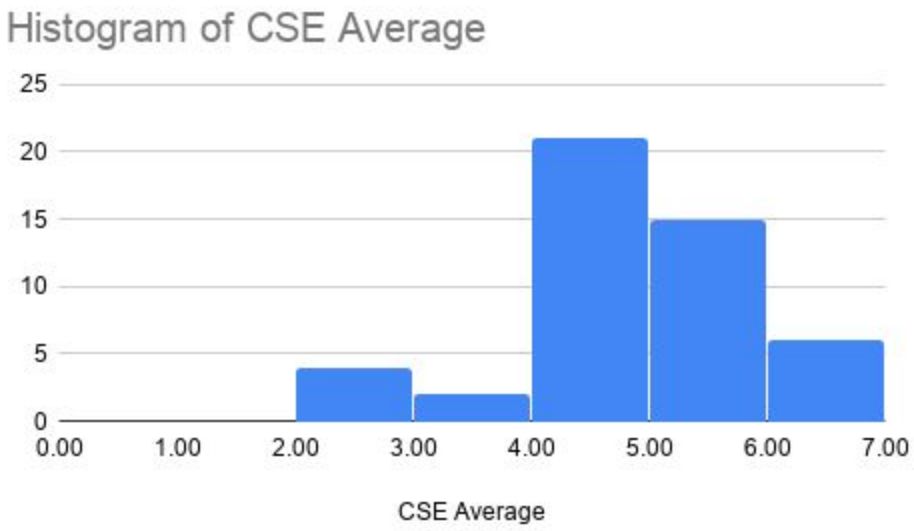


Figure 4: Computer Self-Efficacy Average response

The chart above shows that students have a sufficient degree of self-efficacy when utilizing Moodle, therefore the University does not to need invest much in educational training of students in regards to the learning system "Moodle".

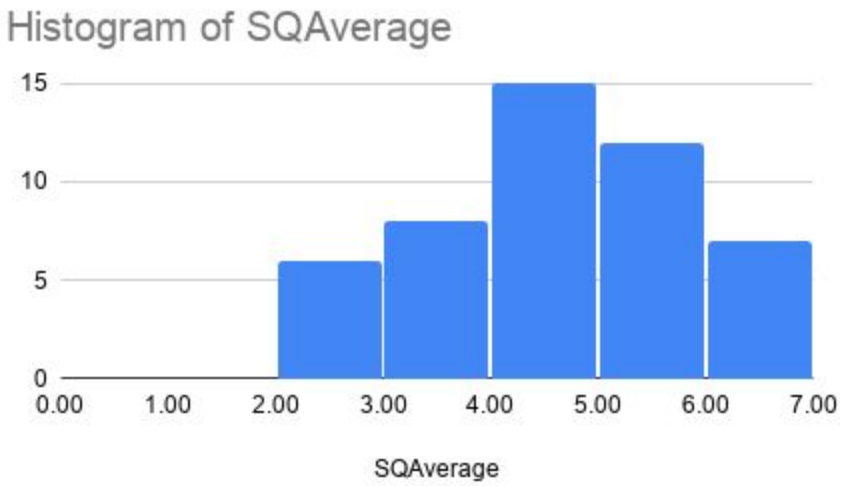


Figure 5: Service Quality Average Response

The chart above is an illustration of student perception of the service quality of Moodle. Based on the responses, UB's service quality is average, therefore improvement is necessary when it comes to the performance of their ODL departmental efforts to increase the efficiency of the information system.

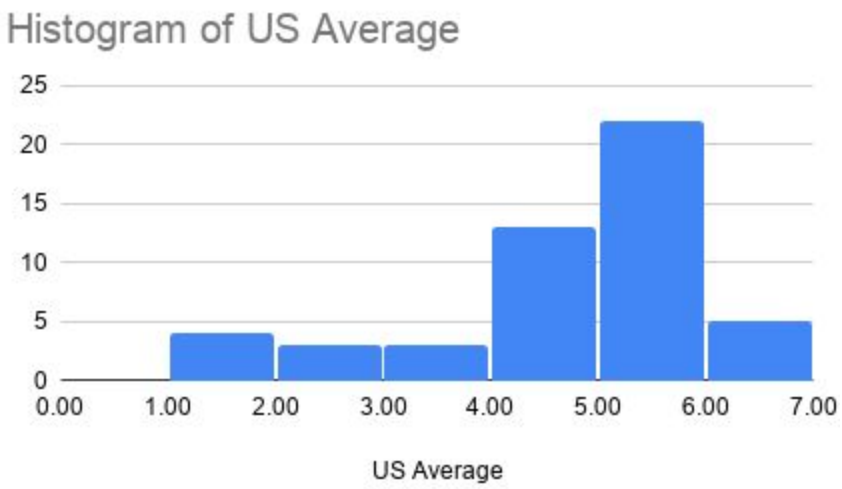


Figure 6: User Satisfaction Average Response

The chart above shows that most UB students who use Moodle is quite satisfied as the majority of the ratings are 5 and 6 while only a few are neutral or do not agree.

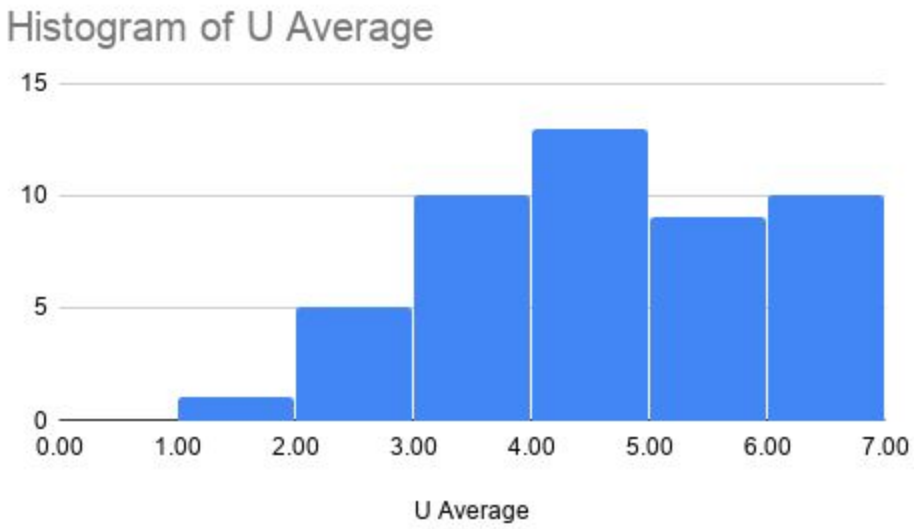


Figure 7: Use Average Response

The chart above shows that most students utilize Moodle to complete school work while it is not mandatory in classes for some students. Therefore, UB would need to work on making all students utilize the learning system to get the most out of it.

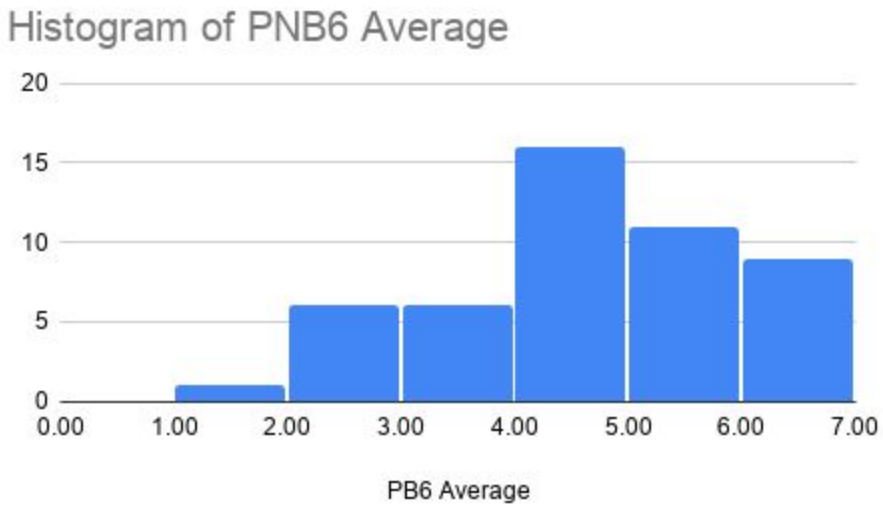


Figure 8: Perceived Net Benefit Average Response

The chart above shows that Moodle is beneficial to most students since the majority of the responses fall in the 5, 6 and 7 category, while some do not receive much or any benefit at all from the learning system.

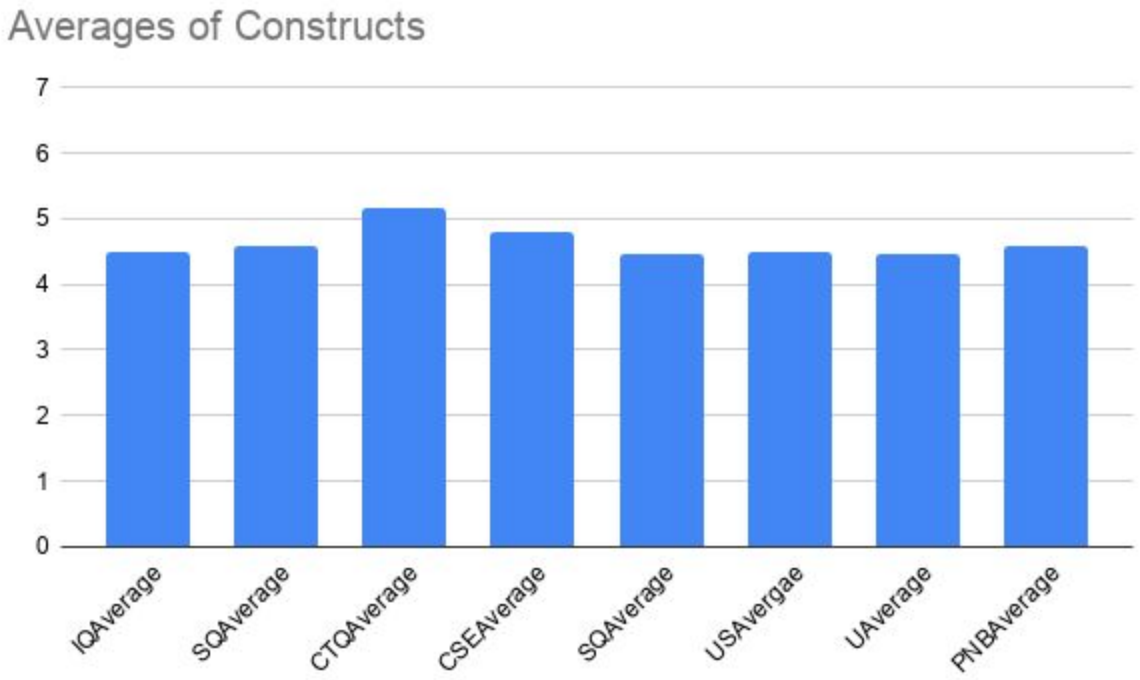


Figure 9: Average of Constructs Compared

The chart above show the averages of all constructs within this research with most being above 4 and two passing 5. These ratings indicate that UB is doing a decent job at efficiently and effectively utilizing and implementing its learning system "Moodle", but still has space for improvements.

Discussion

The DeLone and McLean model along with our two additional constructs has allowed us to accurately measure the Information System Success of "Moodle" at UB, Belmopan as they evaluate important aspects of the system. After receiving responses from our sample population and analysing the data, we are able to infer that the learning system "Moodle" implemented and utilized at the University of Belize is moderately successful since on average all constructs received a response in the "4's" category. This raises a need for the University to improve on the services provided by the learning system to its students. In order to increase the Perceived Net benefits of Moodle, UB must increase Use and User satisfaction. The data indicates that not all students depend on Moodle to get their work done, therefore, some lectures are not making Moodle mandatory to complete their courses. This can be changed if UB makes their use of Moodle policy stricter. This way, every student at UB will undoubtedly use Moodle to fulfil school work. UB can also better implement Moodle by increasing its information, system, and service quality which in turn will allow greater satisfaction of using Moodle. Based on the data, Complementary Technology Quality and Computer Self Efficacy constructs, received the more favourable responses, therefore more students have adequate access and ability to utilize Moodle. However, UB can increase these areas by implementing more effective educational strategies on how to use and navigate Moodle and embarking on a program that will assist students who need a laptop.

Conclusion

This research was conducted using two types of research switching from basic (theoretical) to applied (practical) research in which a hypothesis was not be tested, rather the data was gathered through a series of questions that were randomly given to measure the Success of the Learning System "Moodle" at the University of Belize. Moreover, the ratings revealed that UB is fairly, efficient and effective in the utilization and implementation in its learning system "Moodle", however, the university can make improvements on the usage of Moodle as an information system, since it is promising way for teachers to organize, and to manage an electronic educational sequence. In addition, the multimedia tools offered by Moodle allow to create interactive and attractive activities making the learning process easier for students (Jebari). Therefore, these activities increase the interest of the students and motivate them to accept the learning process. In this work we focused on the success of use of platform Moodle by the UB faculty in the learning process. The student's general perception of the quality and use of the information system "Moodle" was that it was moderately effective hence, Moodle is not being used to its full potential. Consequently, to alleviate this dilemma we are recommending that the University policy makes it mandatory for faculty to use Moodle as a learning platform. Furthermore, through the implementation of mandatory use, this will foster better communication and information sharing from lecturers to students and vice-versa.

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Appendix

Purpose

This research is required for the CMPS3012 MIS course at University of Belize University. This questionnaire asks for information about yourself and how often you use the Learning Management System Moodle. The data gathered will be analyzed to determine the success of Moodle at our University.

Please answer each question based on your use of Moodle. Your individual responses to the questionnaire will be strictly confidential and used solely for this research.

Instructions

This is a survey, not a test; there are no right or wrong answers. Please tick the boxes to mark your answers.

1. Background Information	**Answers:**
Please indicate your gender:	Male ☐ Female ☐
Please indicate your age:	<18 ☐ 19-24 ☐ 25-31 ☐ 32-37 ☐ >3 ☐
Please indicate your faculty:	FMSS ☐ FEA ☐ FST ☐ FHS ☐
Please indicate your program level:	Associate ☐ Bachelor ☐
Please indicate what year you are currently in at University of Belize:	1st Year ☐ 2nd Year ☐ 3rd Year ☐ 4th Year☐

Indicate your agreement with each statement by rating it from (1) strongly disagree to (7) strongly agree.

2. Information Quality	**Disagree ----------Agree**
IQ1: The Moodle system provides information that is exactly what you need	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
IQ2: The Moodle system provides information you need at the right time	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
IQ3: The Moodle system provides information that is relevant to your class	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
IQ4: The Moodle system provides sufficient information	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
IQ5: The Moodle system provides information that is easy to understand	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
IQ6: The Moodle system provides up-to-date information	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

IQ7: The Moodle system provides sufficient information	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
3. System Quality	**Disagree ----------Agree**
SQ1: The Moodle system is easy to use	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
SQ2: The Moodle system is user-friendly	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
SQ3: The Moodle system provides high-speed information access	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
SQ4: The Moodle system provides interactive features between users and the system	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
4. Complementary Technology Quality	**Disagree ----------Agree**
CTQ1: The computer (desktop, laptop, mobile device) you normally use to access Moodle is adequate	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CTQ2: The computer (desktop, laptop, mobile device) you normally use to access Moodle has a fast and reliable internet connection	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CTQ3: The speed of the Internet connection used to access Moodle is adequate.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CTQ4: The reliability of the Internet connection used to access Moodle is adequate	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
5. Computer Self- Efficacy Measure	**Disagree ----------Agree**
CSE1: I could complete my school work using Moodle if I had never used an information system before.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CSE2: I could complete my school work using Moodle if I had only used the information system manuals for reference.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CSE3: I could complete my school work using Moodle if I had seen someone else using the information system before trying it myself.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CSE4: I could complete my school work using Moodle if I could call someone to help if I got stuck.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CSE5: I could complete my school work using Moodle if someone else had helped me get started.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CSE6: I could complete my school work using Moodle if I had a lot of time to complete the work for which the information system was provided.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CSE7: I could complete my school work using Moodle if I had just the built-in help facility for assistance.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

CSE8: I could complete my school work using Moodle if someone showed me how to do it first.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CSE9: I could complete my school work using Moodle if I had similar information systems before this one to do the same work.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

6. Service Quality	**Disagree ----------Agree**
SV1: The support staff keep the Moodle system software up to date	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
SV2: When users have a problem the Moodle system support staff show a sincere interest in solving it	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
SV3: The Moodle system support staff respond promptly when users have a problem	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
SV4: The Moodle system support staff tell users exactly when services wil be performed	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
7. User Satisfaction	**Disagree ----------Agree**
US1: Most of the users have a positive attitude of Moodle. the Moodle system function.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
US2: You think that the utility of the Moodle system is high.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
US3: The Moodle system has met your expectations.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
US4: You are satisfied with the Moodle system.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
8. Use	**Never ----------Often**
U1: Your frequency of use of the Moodle system is high	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
U2: You depend upon the Moodle system	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
U3: You were able to complete a task using Moodle even when there was no one around to tell you what to do	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
U4: You have the knowledge necessary to use the Moodle system	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
9. Perceived Net Benefits	**Never ----------Often**
NB1: The Moodle system helps you improve your academic performance	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
NB2: The Moodle system helps students save costs	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
NB3: The Moodle system helps you achieve your academic goals	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
NB4: Using the Moodle system improves assessment and teaching	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
NB5: Using the Moodle system at school increases your academic productivity	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
NB6: Overall, using Moodle enhances student performance	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

Please return this survey to the person who gave you the form.

Thank you for your participation.