Analyzing the success of the Learning Management System at a Tertiary Level Institution in Belize: A developing country standpoint

Monica Escarpeta
University of Belize
College Street, West Landivar
200218317@ubstudents.edu.bz

Sheila Arjona
University of Belize
College Street, West Landivar
2018119047@ubstudents.edu.bz

Kylee Joseph
University of Belize
College Street, West Landivar
2017117538@ubstudents.edu.bz

Gilda Marin
University of Belize
College Street, West Landivar
2018118125@ubstudents.edu.bz

Janet Klassen
University of Belize
College Street, West Landivar
2012110086@ubstudents.edu.bz

Abstract

In Belize there are numerous unique Information Systems which exist and are used by various organizations. These Information Systems cost the organizations a significant amount of money and employees sacrifice time to gain the adequate training to use them. The most important aspect of the Information Systems are their usefulness and the degree of efficiency and effectiveness they contribute to the organization. This paper focuses on the Information System which is being used by the University of Belize, Moodle with relation to the DeLone and McLean's Information System success model was adopted to test the system by its users. The Information System success model consists of eight constructs, namely: information quality, system quality, service quality, user satisfaction, user, perceived net benefits, complementary technology quality, and computer self-efficacy measure. Quantitative research was chosen, and questionnaires were used to collect data from 50 customers of the University of Belize.

Keywords: *Moodle, Information System Success, University of Belize*

Background

Attaining quality higher education is the ticket to a successful career and future. The University of Belize (UB) is an English speaking multi-locational center of learning for higher education and the national University of Belize. The birth of the university (UB), has been elevating the country of Belize and beyond since 1977 (almost 42 years and counting). Presently, UB holds an enrollment of over 4,000 students. The institution offers certificates, diplomas, associates degrees, bachelors degree and a graduate degree programme.

The history began in the 1977, where the university was built on the Committee for Sixth Form Studies and later merged and became a tertiary level institution in the year 2,000. The university's commitment to student success, inclusive excellence and service to the community has made it a national model for the institutions of higher learning. Before evolving into a multi-locational institution, the university experienced some difficulties and setbacks.

In the past, there was a power struggle among a few Belizean loyalist (politicians) who wished to abolish the previous educational system and wanted to rely less on foreign institutions. Back in 1979, the ruling government of Belize, the People's United Party (PUP) created the Belize College of Arts, Science and Technology as a State Institution. The government had received funds from the European Economic Community for construction of a school campus in Belmopan but was never constructed. As the United Democratic Party (UDP) then gained office in December 1984, they envision a new route for the institution. The UDP government then created an alternative college **"The University College of Belize"** on July 1986 and was maintained by Ferris State College (An American Public University) of Big Rapids, Michigan.

However, the opposition party was not supportive that the university would be administered by an internal institution. Heated political disagreement arose in 1991 when it was revealed that the university had not been properly accredited, calling into question the value of its degrees. It was years later, that the new PUP government severed its agreement with Ferris State College and the state of Belize assumed full control over the University.

The amalgamation of the now University of Belize was established on August 1st, 2000. It was a merge of five tertiary level institutions in Belize. Presently, the main campus was transfer to Belmopan City in 2004. The National University is a historical landmark not only to the

educational aspect but to the continuous development of Belize. The institution offers programs countrywide within Belize.

Introduction

The use of Information Systems in organizations or institutions have been of great help in order to collect, process, store, and disseminate information to support decision making, coordination, control, analysis, and visualization in the organization/institution. Due to the evolution of technology, Information Systems are being used widely for the technology management in organizations.

The DeLone and McLean Information Systems Success Model was presented ten years ago as a structure and representation for evaluating the complex dependent variable in Information Systems research. The efficacy or success evaluation of Information Systems is critical to our comprehension of the worth of the success of Information Systems management actions and IS investments (DeLone and McLean, 2003). On this day and age, companies, organizations and institutions have been investing considerable amounts of money on Information Systems without being aware if whether these information systems will be beneficial and or useful to the purposes or aims to the institution's objectives.

Just as information systems, Learning Management Systems (LMS) have been broadly used on educational institutions and these institutions have been spending significant amounts of money on installing and maintaining these systems (Learning Management Systems Success 2015). Learning Management Systems are systems or software that helps organizations or institutions in delivering organized education e-learning courses and or training programs. An example of LMS is the Moodle System used at the University of Belize, in which the research was carried.

The research project was conducted at the University of Belize which is an institution that was created from five other institutions namely University College of Belize (UCB), the Belize Technical College (BTC), the Belize Teachers' Training College (BTTC), the Belize School of Nursing (BSN), and the Belize College of Agriculture (BCA). In order to conduct the research and obtain reliable data, an approved questionnaire was used which randomly surveyed 50 University of Belize students. The data was then analyzed and interpreted by the research group in order to obtain the results and to conclude if the Moodle information System was successful or not. This was done by determining how satisfied were the students with the Information system they use.

This paper will highlight the research project that was designed to look at the type of Information System the University of Belize uses. It was found out that the University of Belize uses various types of Information Systems (Moodle, Xenegrade, Gmail and Bookstore online) but the research group focused on "Moodle- Modular Object-Oriented Dynamic Learning Environment. Moodle is an online educational platform that provides custom learning environments for students. At the University of Belize, Moodle is being used for students to post their assignments, forums, to communicate with their lecturers in facilitators, to view course outlines, course grades, download documents, view the weekly schedule and to see any course announcements. The purpose of this research project is to outline the successfulness of the Moodle Information System used by gathering data from the students of the university.

Purpose: The purpose of this research was designed to evaluate the success of the Moodle System at the University of Belize.

Statement of the Problem: The University of Belize each year has new students and returning students; therefore, an effective information system needs to be put in place to enhance the learning of students both online and on the campus. This research will be able to assess the successfulness of the Moodle System at the University of Belize and if it is performing to its maximum capability.

Research Questions

The purpose of this research was to determine if the Moodle has been performing successfully. In order, to answer this question, the primary research question was divided into sub questions to be analysed.

a) Is gender a factor for when it comes to users utilizing Moodle?
b) Are users receiving adequate training to equip them to maximize the usage of Moodle?
c) Does Moodle provide quality information?
d) Does Moodle provide system quality?
e) Does complementary technology positively impact system quality?
f) Does Moodle provide good service quality?
g) Are users satisfied with the use of Moodle?
h) Do users use Moodle regularly?
i) Is there a net-benefit, users perceived when utilizing Moodle?

Hypothesis

Each research questions were tested utilizing the following Hypotheses:

H1 - Gender is not a factor when it comes to users utilizing Moodle.
H_2 - Users receive adequate training to equip them to maximize the usage of Moodle.
H_3 - Moodle provide quality information.
H_4 - Moodle provide system quality.
H_5 - Complementary technology positively impact system quality.
H_6 - Moodle provide good service quality.
H_7 - Users are satisfied with the use of Moodle.
H_8 - Users use Moodle regularly.
H_9 - There is a net benefit, users perceived when utilizing the Moodle.
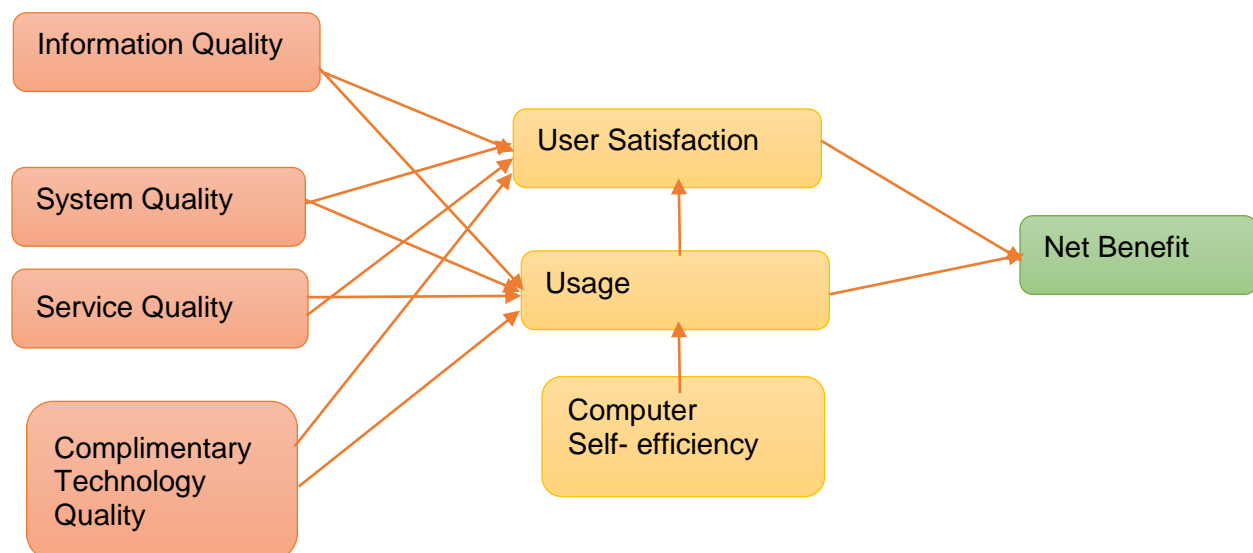
Literature Review

Information Technology (IT) has had a great impact on society over time, especially with businesses and their business functions. Information System (IS) is defined as an integrated set of components for collecting, storing, and processing data and for providing information, knowledge, and digital products (Zwass, 2017). Majority of business firms and other organizations rely on information systems to carry out and manage their operations, interact with their customers and suppliers, and compete in the marketplace; therefore, it has become a major necessity in our society. In this section, the theoretical foundation and the conceptualization of a successful learning management system is established. Through this research, information about Moodle and its effectiveness were gathered and analyzed. Moodle is a learning management system used at the tertiary level (University of Belize) where our research was conducted. It is a very effective learning management system which has allowed students, as well as lecturers to facilitate communication and learning. In this article, we will highlight the most dominant model of DeLone and Mclean (D&M IS Success Model) in relation to our successful research conducted at the University of Belize.

The DeLone and Mclean IS success model is one that was originally created to provide guidance to previous researchers. This is a theory which seeks to provide a comprehensive understanding of IS success by identifying, describing, and explaining the relationships among six of the most critical dimensions of success along which information systems are commonly evaluated. Through this theory, they concluded that the six major factors involved in the success of IS are: the quality characteristics of the IS itself (system quality), the quality of the output of the IS (information quality), consumption of the output of the IS (use), the IS user's response to the IS (user satisfaction), the effect of the IS on the behavior of the user (individual impact) and the effect of the IS on organizational performance (organizational impact).

Their model considered information to be the output of an IS or the message in a communication system. They emphasize on the importance of the information that flows through the organization. Looking at studies by Shannon and Weaver (1949) and Mason (1978), they noted that the effect of information on its users can be measured at three different levels: a technical level, a semantic level, or an effectiveness level. The technical level involves how well the symbols of communication are being transmitted whilst the semantic level focuses on the intended meaning and the interpretation of the meaning between the sender and the receiver. Lastly, the effectiveness level which focuses on the behavior of the receiver after getting the message/meaning (Alshibly, 2014). This model emphasizes the importance IS has in every business or organization as well as the effectiveness of proper communication between employees and customers. Likewise, at the University of Belize, students (customers), need to have access to several features of the learning management system (LMS) not only to take advantage of its benefits; but also, to maintain effective communication between lecturers and administrators.

As a tertiary level institution, the University of Belize is required to provide its customers with a reliable and effective LMS in order to support learning outcomes and quality education. The successful LMS provided by the University is known as Moodle. The Moodle name means Modular Object-Oriented Term Developmental Learning Environment and is a course management system through the Internet, also known as LMS or a Virtual Learning Environment (VLE). It is a free web application that educators can use to create effective online learning sites (Lopes, 2014). Moodle involves many features which focus on increased usability including: easier navigation, improved user profiles, community hub publishing and downloading, a new interface

for messaging and a feature that allows teachers to check student work for plagiarism (Walsh and Coleman 2010). The evaluation of an LMS is essential to ensure its effective implementation and the positive impact on the delivery of e-learning (Almrashdeh et al., 2011).

Evaluating and analyzing the LMS at the University, assists students in understanding the benefits of e-learning. According to Pappas (2016) some of the benefits of using LMS include:
● Organizes e-learning content in one location
● Provides unlimited access to e-learning materials
● Easily tracks learner progress and performance
● Reduces learning and development costs and time
● Quickly and conveniently expands e-learning courses
● Integrates social learning experiences

However, there are many more benefits that students can take advantage of thanks to the implementation of Information systems and LMS. Moodle has proven to be a successful LMS at the University of Belize; hence, quality education can be delivered by lessening the traditional and outdated teaching style (chalk and talk). Therefore, students can make use of an effective and innovative way of learning through a successful LMS.

Methodology

To ensure the content validity of the scales, measurement scales for the basic data collection were from the University of Belize. The information quality construct was measured by a six -item scale from UB with modifications to fit the specific context of Moodle, the open and distance learning is widely accepted, has been tested for reliability and validity by several researchers, and has become a standard instrument within the schools. A four –item scale was adopted and refined from Moodle, were used to measure the system quality construct. Complementary Technology quality construct was measured by a four-item scale. Computer-self efficacy construct was measured by a ten-item scale. Service quality construct was measured using a four–item scale was adopted and refined from Moodle. User Satisfaction construct was measured by a five-item measurement scale. In this research, we consider satisfaction as an evaluative judgment regarding a specific Moodle experience and the affective attitude of the students who interacts directly with the tool. Use construct was measured with a four-item scale. The Moodle perceived net benefits construct defined as an achievement of the university objectives for using the Moodle and achievement of end-user related objectives from using it. These covers actual benefits the students receive from using Moodle. This was operationalized by a six-item scale. All the items were measured using a 7- point rating scale ranging from disagree (1) to agree (7). After the measurement variables were developed, the face validity of these variables was tested. Dr. Ryan reviewed the measurement variables and provided feedback on the length and clarity of each item. Table 1 presents the research constructs and related survey items used for measurement of each of these constructs.

Table 1. Measurement items for questionnaire.

Construct	Survey questions	Source
Information Quality	IQ1: UB's Moodle information System is exactly what you need? IQ2: UB's Moodle Information System provides information you need at the right time? IQ3: UB's Moodle Information System provides information that is relevant to your education/work? IQ4: UB's Moodle Information System provides sufficient information? IQ5: UB's Moodle Information System provides information that is easy to understand? IQ6: UB's Moodle Information System provides up-to-date information	UB
System Quality	SQ1: UB's Moodle Information System is easy to use? SQ2: UB's Moodle Information System is user-friendly SQ3: UB's Moodle Information System provides relevant, concise and complete information. SQ4: UB's Moodle Information System provides interactive features between users and the system	UB
Complementary Technology Quality	CTQ1: The software on the device on campus (desktop, laptop, mobile device) used to access UB's Moodle Information System is adequate CTQ2: The device hardware on campus (desktop, laptop, mobile device) used to access UB's Moodle Information System is adequate? CTQ3: The speed of the internet connection used to access UB's Moodle Information System on campus is adequate? CTQ4: The reliability of the internet connection used to access the UB's Moodle Information System on campus is adequate?	UB

Computer Self-Efficacy Measure	CSE1: There was no one around to tell me what to do as I go. CSE2: I had never used an information system like it before. CSE3: I had only the information system manuals for reference. CSE4: I had seen someone else using the information system before trying it myself. CSE5: I could call someone for help if I got stuck. CSE6: Someone else had helped me get started. CSE7: l had a lot of time to complete the job/assessment for which the information system was provided. CSE8: I had just the built-in help facility for assistance. CSE9: someone showed me how to do it first. CSE10: I had used similar information systems before this one to do the same job/assessment.	UB
Service Quality	SQ1: The support staff keep the UB's Moodle Information System software up to date. SQ2: When users have a problem, UB's Information System support staff show a sincere interest in solving it. SQ3: UB's Moodle Information System support staff respond promptly when users have a problem. SQ4: UB's Moodle Information System support staff tell users exactly when services will be performed.	UB
User Satisfaction	US1: Most of the users bring a positive attitude or evaluation towards UB's Moodle Information system function? US2: You think the perceived value or benefit about UB Moodle's information system is high? US3: UB's Moodle Information System has met yo expectations? US4: You are satisfied with UB's Moodle Information System? US5: You would highly recommend UB's Mood Information System to a peer?	UB

Use	U1: Your frequency of use of UB's Moodle Information System is high? U2: You depend upon UB's Moodle Information System? U3: You were able to complete a task using UB's Moodle Information System even when there was no one around to tell you what to do as you go? U4: You have the knowledge necessary to use UB's Moodle Information System?	UB
Perceived Net Benefits	NB1: UB's Moodle Information System helps you improve your academic performance? NB2: UB's Moodle Information System helps the institution save costs? NB3: UB's Moodle Information System helps the institution achieve its goals? NB4: Using UB's Moodle Information System improves the assessment and training? NB5: Using UB's Moodle Information System enhances your productivity? NB6: Overall, using UB's Moodle Information System enhances recruitment and performance management.	UB

Sampling and data collection

The data for this study were collected from students from the University of Belize. The research sampling was general as any students attending the college could have answered. A total of 50 questionnaires were distributed to the students and returned, yielding a response rate of 100 percent. The students' characteristics is presented in Table 2. Female participants represented a higher percentage of the completed sample (approximately 84%) compared to male participants (approximately 16%). 71% of the participants were aged 20-25 years. The program enrolled in was composed of individuals, approximately 95% of whom were FMSS students. The participants were mostly pursuing Bachelors, approximately 72% of the participants are attending 2-4 years.

Table 2. Characteristics of the students

Characteristics	Number	Percentage
Gender		
Female	34	84%

Male	16	16%
Age		
<20	8	8%
20-25	31	71%
26-30	6	6%
31-35	4	4%
>35	1	1%
Program		
FEA	3	3%
FMSS	45	95%
FNAHSW	2	2%
FST	0	
Education		
Associates	10	10%
Bachelors	30	80%
Certificate	1	1%
Diploma	0	
Years		
<1	17	17%

2-4	32	72%
5-10	1	1%
>10	0	

Data Analysis and Discussion

The research was conducted via printed surveys that were given out to 50 customers of the University of Belize. The sample group was of 100 and 100 responses were received at total of 100% of the desired sample group. The focus is on the 8 constructs namely: information quality, system quality, service quality, user satisfaction, user, perceived net benefits, complementary technology quality, and computer self-efficacy measure. We obtained the following information from the survey undertaken :

Information Quality system has an average of 4.19 out of 7 or 59.8% represented in the histogram

below:

Histogram of Information Quality

Information Quality
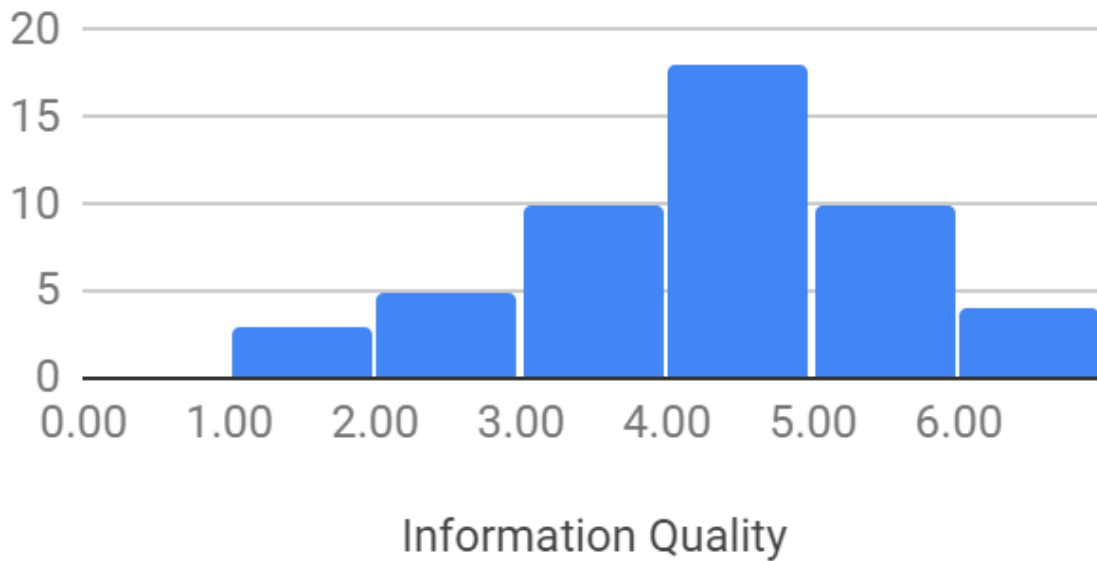
System Quality with an average of 4.45 out of 7 or 63.5% represented in the histogram below:

Histogram of System quality

System quality
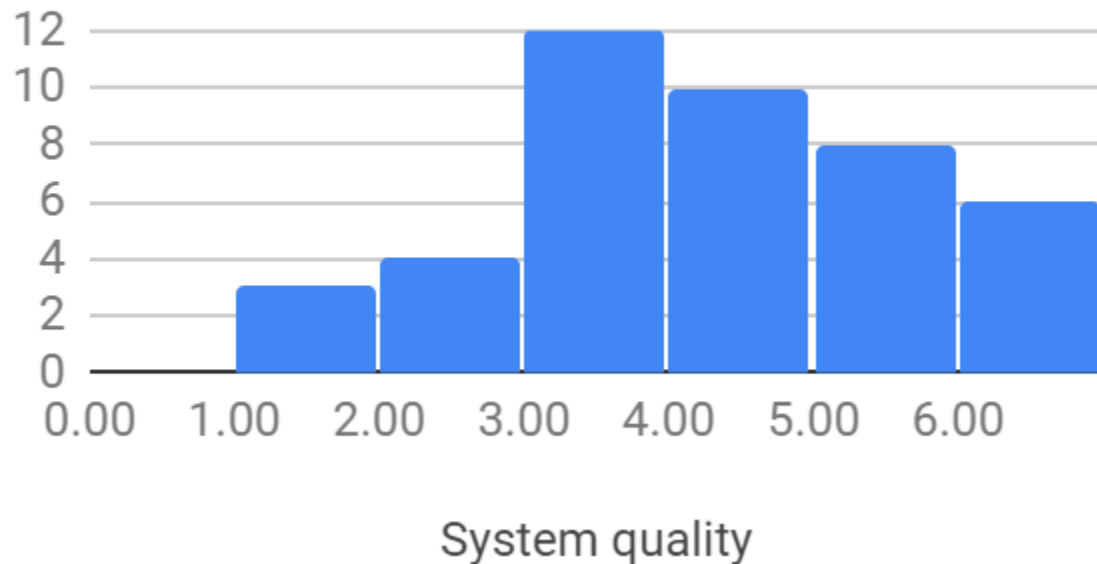
Service Quality with an average of 4.29 out of 7 or 61.2% represented in the histogram below:

Histogram of Service Quality
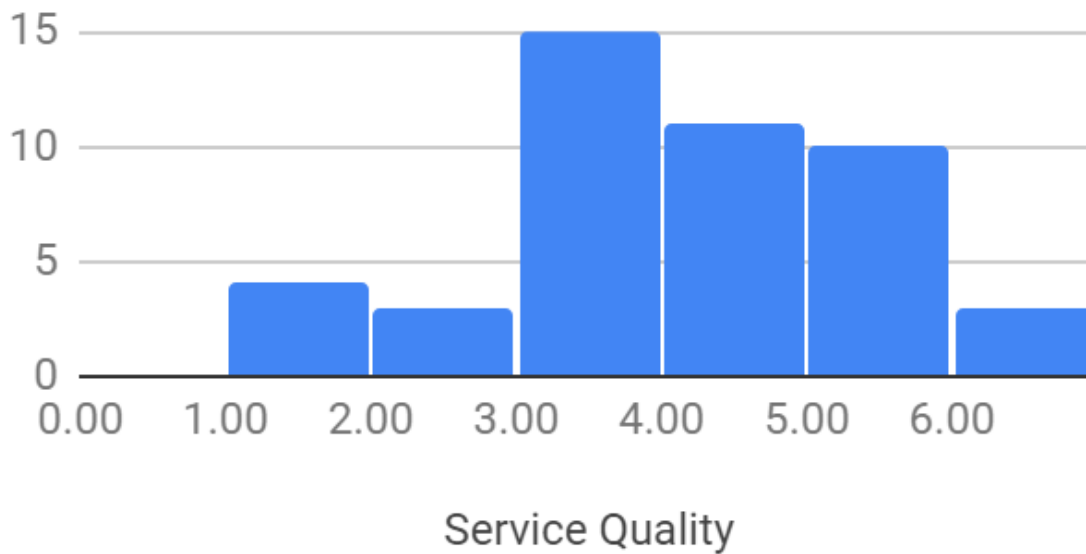
User Satisfaction with an average of 4.22 out of 7 or 60.2% represented in the histogram below:

Histogram of User Satisfaction

The use of the information system with an average of 4.16 out of 7 or 59.4% represented in the

histogram below:
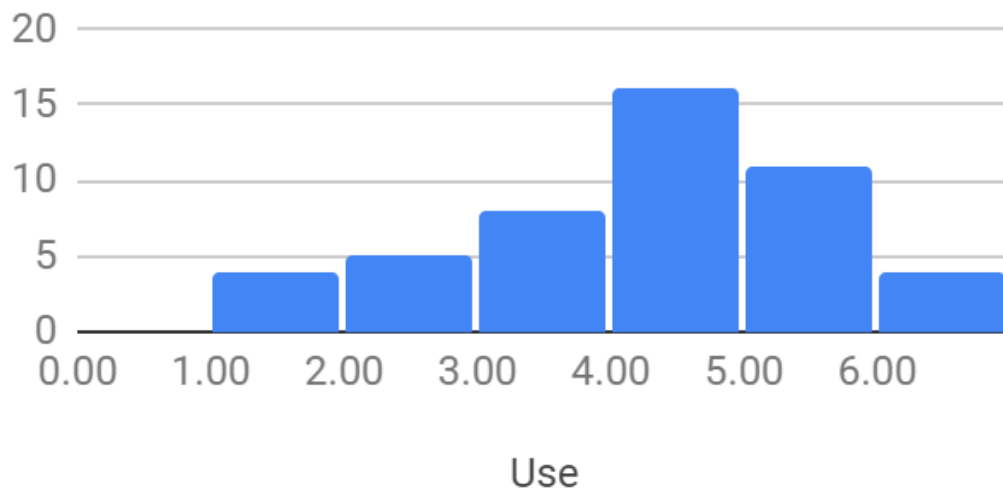
Histogram of Use

Perceived Net Benefits with an average of 4.08 out of 7 or 58.2% represented in the histogram below:

Histogram of Perceived Net Be...
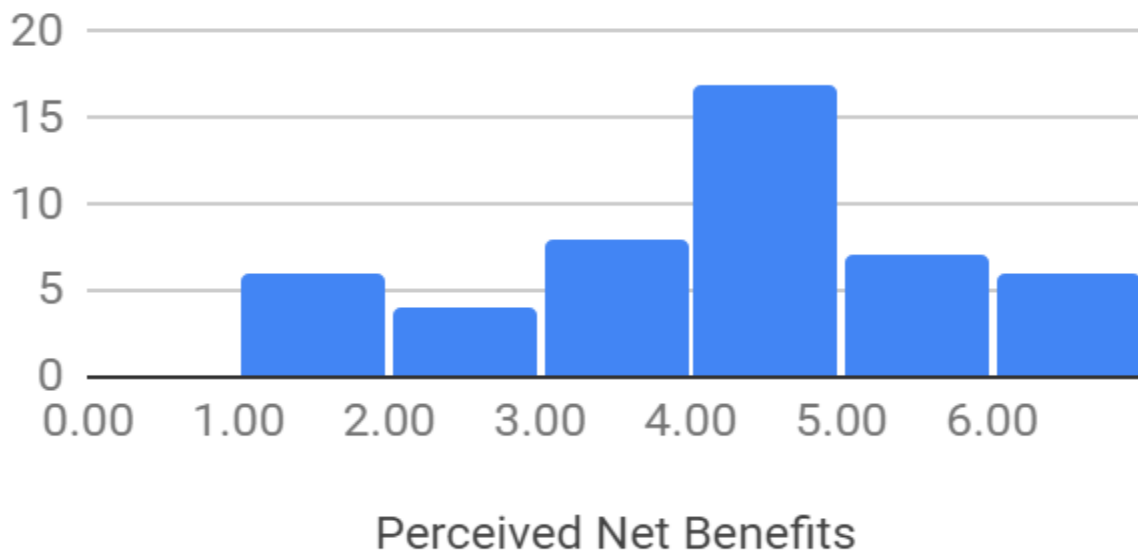
Complementary Technology Quality with an average of 4.14 out of 7 or 59.9% represented in the histogram below:

Histogram of Complementary...
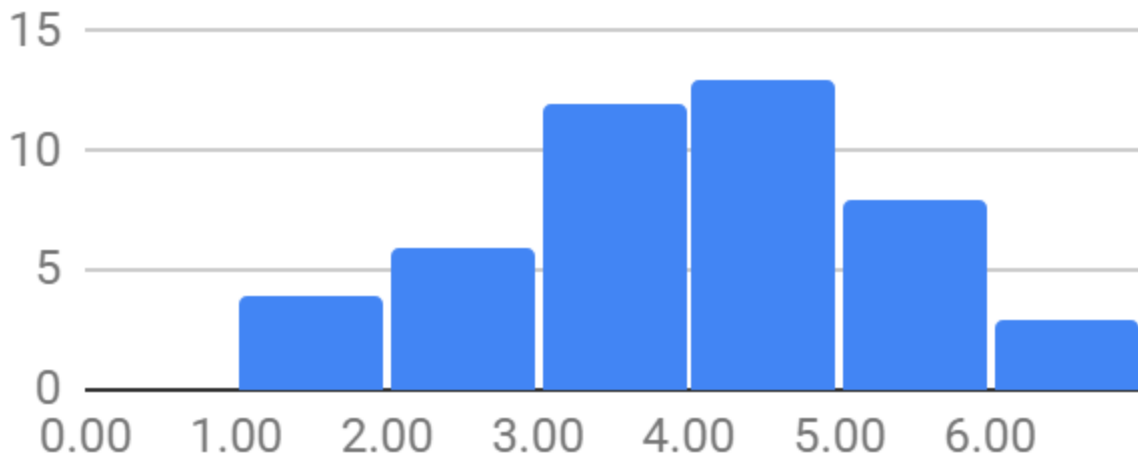
Complementary Technology Quality

Computer Self Efficacy with an average of 4.6 out of 7 or 65.7% represented in the histogram below:

Histogram of Computer Self E...
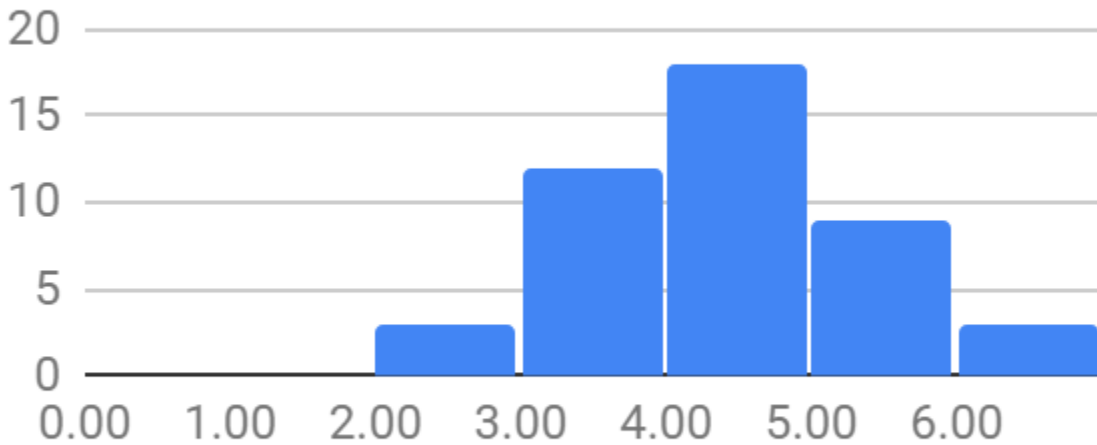
Computer Self Efficacy

Most of the averages are between the range of 58.2% to 65.7% which means that the system is not being utilized in the most efficient manner. The information quality is of 59.8% which means that the quality of the information system in this case being Moodle needs to be improved in order to

increase customer usage. The system quality is of 63.5% which means that more than half of the customers are satisfied with the quality, but it greatly needs to be improved. The service quality with 61.2% meaning that the speed of the system good but needs more improvement. The user satisfaction is of 60.2% which means that most customers using the system are satisfied but still the 39.8% have issue with Moodle. The use of the system is at a very low percentage of 59.4% which means that most of the customers are not using the system. The perceived net benefits of the 59.4% of customers that are using Moodle system is of 58.2% meaning that they do get certain benefits of the system but not as much as desired. The computer technology quality is at 59.9% meaning that customers are at a certain point satisfied with the technology but to get better result the technology of the system needs to be more up to date. The computer self-efficacy is a bit higher with a percentage of 65.7% which means that most of the customers feel comfortable using the Moodle system.

Conclusion

The purpose of this research was designed to evaluate the success of the Moodle the University of Belize. The results from the topic of the questions Information Quality, System Quality, Complementary Technology Quality, Service Quality, User Satisfaction, use, computer self-efficacy and perceived net benefits showed that the Moodle is successful but does require much more improvement. The hypothesis was proven correct.

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Appendix

Questionnaire I – "Successfulness of Information System" (University of Belize)

University of Belize
UB
Education Empowers a Nation

Purpose

This questionnaire asks for information about the successfulness of the Information System used at the University of Belize. We know that the institution uses several information systems but we would like to focus on Moodle. This questionnaire is for us to measure how successful or not successful Moodle is for the teachers and students at the University of Belize.

Please answer the questions in relation to your personal experience. Your individual responses to this questionnaire will be strictly confidential.

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:	<20 ☐ 20-25 ☐ 26-30 ☐ 31-35 ☐ >35 ☐
Please indicate Program:	FEA ☐ FMSS ☐ FNAHSW ☐ FST ☐
Please indicate degree pursuing:	Associates ☐ Bachelors ☐ Certificates ☐ Diploma ☐
Please indicate your years at UB:	<1 ☐ 2-4 ☐ 5-10 ☐ >10 ☐

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

2. Information Quality	Disagree ------------------------------Agree
IQ1: UB's Moodle information System is exactly what you need?	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
IQ2: UB's Moodle Information System provides information you need at the right time?	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
IQ3: UB's Moodle Information System provides information that is relevant to your education/work?	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
IQ4: UB's Moodle Information System provides sufficient information?	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
IQ5: UB's Moodle Information System provides information that is easy to understand?	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
IQ6: UB's Moodle Information System provides up-to-date information	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
3. System Quality	**Disagree ------------------------------Agree**
SQ1: UB's Moodle Information System is easy to use?	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
SQ2: UB's Moodle Information System is user-friendly	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
SQ3: UB's Moodle Information System provides relevant, concise and complete information.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
SQ4: UB's Moodle Information System provides interactive features between users and the system	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
4. Complementary Technology Quality	**Disagree ------------------------------Agree**
CTQ1: The software on the device on campus (desktop, laptop, mobile device) used to access UB's Moodle Information System is adequate	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

CTQ2: The device hardware on campus (desktop, laptop, mobile device) used to access UB's Moodle Information System is adequate?	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CTQ3: The speed of the internet connection used to access UB's Moodle Information System on campus is adequate?	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CTQ4: The reliability of the internet connection used to access the UB's Moodle Information System on campus is adequate?	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

5. Computer Self-Efficacy Measure

Disagree -------------------------------Agree

I COULD USE UB'S MOODLE INFORMATION SYSTEM IF:

CSE1: There was no one around to tell me what to do as I go.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CSE2: I had never used an information system like it before.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CSE3: I had only the information system manuals for reference.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CSE4: I had seen someone else using the information system before trying it myself.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CSE5: I could call someone for help if I got stuck.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CSE6: Someone else had helped me get started.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CSE7: l had a lot of time to complete the job/assessment for which the information system was provided.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CSE8: I had just the built-in help facility for assistance.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CSE9: someone showed me how to do it first.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
SV10: I had used similar information systems before this one to do the same job/assessment.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

6. Service Quality

Disagree -------------------------------Agree

SQ1: The support staff keep the UB's Moodle Information System software up to date.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
SQ2: When users have a problem, UB's Information System support staff show a sincere interest in solving it.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
SQ3: UB's Moodle Information System support staff respond promptly when users have a problem.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
SQ4: UB's Moodle Information System support staff tell users exactly when services will performed.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

7. User Satisfaction

Disagree -------------------------------Agree

US1: Most of the users bring a positive attitude or evaluation towards UB's Moodle Information system function?	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
US2: Do you think the perceived value or benefit about UB Moodle's information system is high?	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
US3: UB's Moodle Information System has met your expectations?	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
US4: You are satisfied with UB's Moodle Information System?	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
US5: You would highly recommend UB's Moodle Information System to a peer?	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

8. Use

Never ------------------------------------Often

U1: Your frequency of use of UB's Moodle Information System is high?	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
U2: You depend upon UB's Moodle Information System?	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
U3: You were able to complete a task using UB's Moodle Information System even when there was no one around to tell you what to do as you go?	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
U4: You have the knowledge necessary to use UB's Moodle Information System?	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

9. Perceived Net Benefits

Never ------------------------------------Often

NB1: UB's Moodle Information System helps you improve your academic performance?	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
NB2: UB's Moodle Information System helps the institution save costs?	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

NB3: UB's Moodle Information System helps the institution achieve its goals?	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
NB4: Using UB's Moodle Information System improves the assessment and training?	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
NB5: Using UB's Moodle Information System enhances your productivity?	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
NB6: Overall, using UB's Moodle Information System enhances recruitment and performance management.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

Kindly return this survey form to the person who gave it to you.
Thank you for your participation.