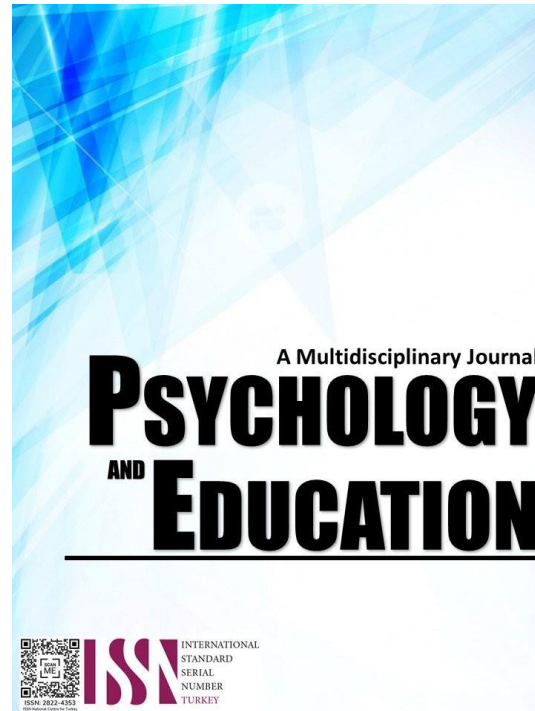


USERS' EXPERIENCE STUDY ON THE LEARNING MANAGEMENT SYSTEM OF A HIGHER EDUCATION INSTITUTION IN CEBU, PHILIPPINES



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Users' Experience Study on the Learning Management System of a Higher Education Institution in Cebu, Philippines

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Abstract

This study investigates how graduate students react to the selected HEI's learning management system (LMS). A user experience survey was used to assess the LMS's pragmatic (task-related) and hedonic (non-task-related) qualities. The results show a mainly neutral rating for both pragmatic and hedonic features, indicating that respondents have an overall neutral posture toward the LMS. Neutrality in this context does not necessarily mean unhappiness, but rather a lack of strong preference, which could be related to users' unfamiliarity with the system or uncertainty about their feelings toward it. The study emphasizes the relevance of elements such as interface design in ensuring the success of e-learning system installation. In addition, the importance of technology and interface design in promoting effective learning experiences is highlighted. Emotional aspects other than functional characteristics must be examined in order to gain a thorough knowledge of users' experiences with the LMS. Finally, accomplishing learning objectives using technology necessitates joint efforts from academic organizational stakeholders. Recognizing and addressing users' fears and concerns can help institutions develop a more positive user experience and potentially improve teaching and learning results. This study emphasizes the need of understanding users' requirements and experiences in order to improve the success of LMS installations in higher education institutions.

Keywords: *users' experience, learning management system, higher education institution*

Introduction

Learning management systems (LMS) have grown in popularity at higher education institutions around the world, including those in Cebu, Philippines, in recent years. These digital platforms include a variety of features and functionalities to aid in course delivery, collaboration, and assessment. Understanding how users interact with the LMS is critical for optimizing its use and improving the learning environment. The COVID-19 pandemic has led to increased adoption of Learning Management Systems (LMS) for remote learning in higher education institutions worldwide. This situation created ongoing obstacles for students globally to adjust to changing learning environments (Ariel Tandra & Rofil, 2023).

The study looks at numerous major factors that determine how users interact with the learning management system. These variables include User Interface and Usability (Davis, 1989; Kearsley & Shneiderman, 1998). This variable focuses on the design, layout, and navigability of the LMS interface, as well as the ease of use for students, professors, and administrative personnel. Accessibility and Connectivity: This variable investigates how well users can access and connect to the LMS, taking into account issues such as internet connectivity, device compatibility, and technical assistance availability (Gikas & Grant, 2013; Valiente & Capili, 2020). Integration of Pedagogy: This variable investigates the incorporation of LMS tools and features into instructional practices, such as the use of multimedia content, online discussions, and interactive activities to improve teaching and learning experiences (Dixon et al., 2020; Swan, 2003). Support and Training: This variable investigates the availability and effectiveness of support services and training programs provided to users, including faculty members and students, to ensure their proficiency in the LMS (Dixon et al., 2020; Swan, 2003). Previous research has provided useful insights into the variables stated above. Valiente and Capili (2020), for example, addressed the problems associated with LMS accessibility and connectivity in the Philippine environment. They discovered that in some places, insufficient internet connection created major challenges to successful LMS use. Gikas and Grant (2013) also investigated the impact of LMS usability on student engagement and satisfaction. They emphasized the value of user-friendly interfaces and straightforward navigation in improving the overall learning experience. However, there is a significant study deficit about users' experiences with LMSs, particularly in higher education institutions in Cebu, Philippines.

While current literature gives useful insights into LMS usage in many contexts, there is a need for research that investigates the unique difficulties, possibilities, and user experiences in the local environment. By filling a research gap, the current study contributes to a deeper understanding of LMS users' experiences in Cebu, Philippines. The purpose of this study is to look into the users' experiences with the LMS at a higher education institution in Cebu, Philippines, with an emphasis on the many aspects that influence their experience. The study's conclusions will have practical significance for the higher education institution under consideration. The institution can establish plans to promote LMS utilization, improve user happiness, and address any existing difficulties by analyzing the aspects that influence the users' experience with the LMS. The findings of this research can be used to inform the institution's decision-making processes, training programs, and support services, resulting in a more effective and user-centered learning environment.

Literature Review

Adoption And Implementation of LMS. The adoption and deployment of learning management systems (LMS) in higher education institutions have presented both opportunities and obstacles. According to Santos and Rosillo (2019), administrative support and teacher training are critical for successful LMS adoption. They discovered that institutions that provided extensive training, as well as continuing support, saw higher levels of LMS integration. Lack of technical skills and aversion to change, on the other hand, hampered the implementation process (Marty et al., 2020). As a result, addressing these difficulties is critical to ensuring the efficient use of LMS.

Pedagogical Integration. Integrating a learning management system (LMS) into teaching practices necessitates careful preparation and faculty support. Dizon (2021) emphasized the significance of matching LMS features to instructional goals and methodologies. To properly use LMS systems for educational purposes, faculty members require adequate training and professional development. Furthermore, a lack of understanding of the complete potential of an LMS can impede its integration into teaching and learning processes (Gacasan et al., 2020).

Technical Challenges. Another impediment to efficient LMS utilization is technical difficulties. Pescador and Uy (2020) identified concerns such as delayed loading times, system crashes, and device and operating system compatibility issues. These difficulties might irritate users and reduce their engagement with the LMS. Regular maintenance, technical support, and system upgrades can all help to alleviate these problems (Barrotti & Fernandes, 2020). The implementation of learning management systems (LMS) in Cebu, Philippines, brings both opportunities and obstacles. Addressing the problems of pedagogical integration, student engagement, assessment, and feedback can improve the effectiveness of LMS use. Faculty training and assistance, student orientation, and matching assessment practices with LMS capabilities are all critical stages towards optimizing LMS implementation in higher education institutions in Cebu, Philippines.

Methodology

Research Design

The study utilized a descriptive quantitative design focusing on the user experience in their utilization of the learning management system by the university. The study garnered responses from 33 of the 59 officially enrolled business graduate students of a university in Cebu City, Philippines. A structured questionnaire was adapted, the User Experience Questionnaire (UEQ) by Martin Schrepp, from ueq-online.org, an organization devoted to UX studies.

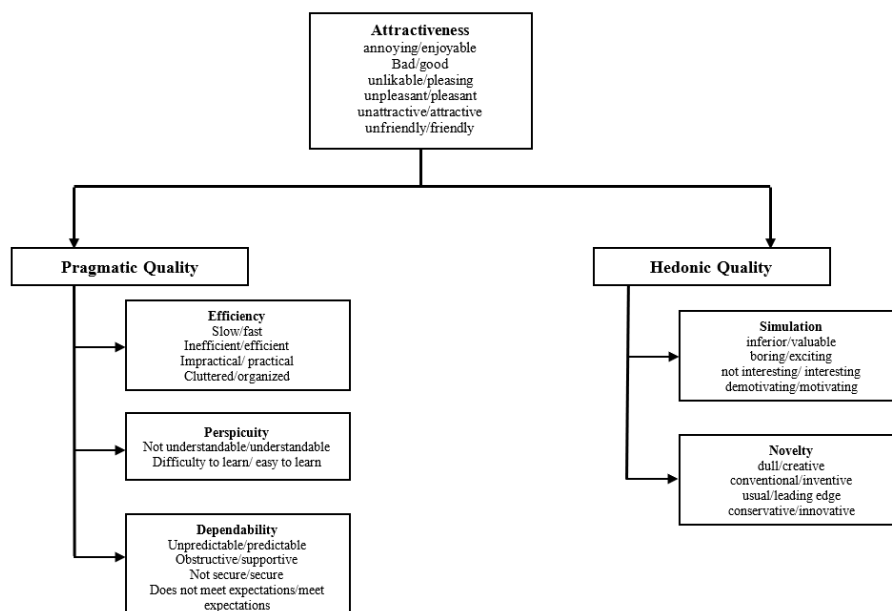


Figure 1. Assumed scale structure of the UEQ

Figure 1 presents the assumed scale structure of UEQ. A semantic differential scale was used to assess the connotative meaning of the LMS. The questionnaire used in this study consists of six scales with a total of twenty-six items. The following terms are used to describe the LMS: Attractiveness refers to a user's overall impression of the LMS; Efficiency refers to the LMS' speed and efficiency; Perspicuity refers to the clarity with which the LMS can be used; Dependability refers to the LMS' dependability and trustworthiness; Simulation refers to the excitement of users in using the LMS; Novelty refers to the LMS' inventive and creative design (Arreza & Esguerra, 2022).

Data Analysis

The UEQ does not generate an overall user experience score, because of the way the questionnaire was designed, it makes no sense to create such an overall score (for example, by calculating the mean across all scales), as this value cannot be properly interpreted. The values for the individual items are listed so that you can spot outliers in the evaluations. If an item deviates significantly from the evaluations of other items on the same scale, this may indicate that the item is being misinterpreted (for example, due to a special context in your evaluation) by a larger number of participants.

Values between -0.8 and 0.8 indicate a more or less neutral evaluation of the corresponding scale, values greater than 0.8 indicate a positive evaluation, and values less than -0.8 indicate a negative evaluation. The scales have a range of -3 (terrible) to +3 (excellent) (extremely good). However, in most real-world applications, only values within a narrow range are observed. It is extremely unlikely to find values above +2 or below -2 due to the calculation of means across a range of different people with different opinions and answer tendencies (for example, the avoidance of extreme answer categories). Thus, even a very good value of +1.5 on a scale appears not to be as positive as it should be on a scale ranging from -3 to +3 (Schrepp, 2018a).

Results

Table 1. Summarized UEQ results showing the scales and the results of the assessment

UEQ Scales	Mean	Interpretation
Attractiveness		
Overall impression of the LMS	0.028	Neutral
Do users like or dislike the LMS?		
Perspicuity		
Is it easy to get familiar with the LMS?	0.053	Neutral
Is it easy to learn how to use the LMS?		
Efficiency		
Can users solve their tasks without unnecessary effort?	0.023	Neutral
Dependability		
Does the user feel in control of the interaction?	-0.025	Neutral
Simulation		
Is it exciting and motivating to use the LMS?	0.561	Neutral
Novelty		
Is the LMS innovative and creative?	0.023	Neutral
Does the LMS catch the interest of users?		

Table 1 shows the summarized user experience survey results. The data obtained were analyzed through a prescribed data analysis tool provided by the author of the questionnaire. The questionnaire has two main attributes: pragmatic (task-related) and hedonic (non-task-related). It can be observed that in terms of pragmatic quality (efficiency, perspicuity, dependability) the results were on the neutral level, the same results were observed in the hedonic quality. The data suggest that the graduate students have a neutral stand about the LMS the university is providing them. A neutral response can have several reasons, Gasper et. al, (2019) defined neutrality as feeling indifferent, nothing in particular, and a lack of preference one way or the other. However, they explained that using the term "indifferent" does not imply disliking something because that would imply a negative rather than a neutral reaction. It is important to remember that neutral affect can theoretically coexist with positive and/or negative affect. The presence of neutral affect, rather than the absence or low levels of positive and negative affect, is thus defined as the presence of neutral affect. In the context of this study, neutrality may have occurred because users are still unfamiliar with how to use the LMS or they are unsure about their feelings towards the LMS.

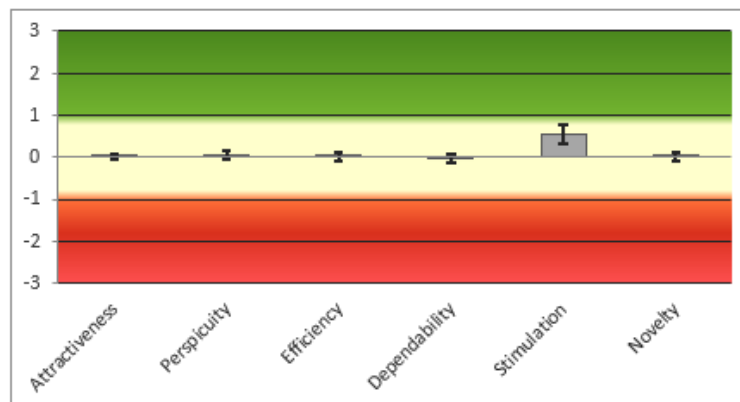


Figure 2. Graphical presentation of the UEQ scale results

Figure 2 reflects the mean score of the attributes are of neutral level. The standard interpretation of the scale is that values between -0.8 and 0.8 represent a neutral evaluation of the corresponding scale, values greater than 0.08 represent a positive evaluation, and values less than 0.08 represent a negative evaluation.

Discussion

Based on the reported summarized user experience survey results, both pragmatic (task-related) and hedonic (non-task-related) characteristics of the learning management system (LMS) obtained neutral scores. This suggests that neither the graduate students' nor the university's opinions on the LMS were strongly good or negative. Users' neutral responses can occur for a variety of causes. It is crucial to stress in the context of this study that neutrality does not necessarily reflect a negative attitude toward the LMS. Instead, it shows that the users are unsure or unfamiliar with how to use the LMS efficiently, which may contribute to their indifferent posture. Users' perspectives and experiences with the LMS may change as they get more familiarity, training, and support.

Users' experience is also associated with different things such as interface, Senevirathne & Manathunga, (2021), interface design is an essential component that influences the success of an e-learning system implementation. The user interface (UI) design for e-learning serves as a point of interaction between the user and the computer program. Users favor visually appealing and simple interface designs over drab or complex interfaces. Ahmed et al., (2022) also said that to teach, evaluate, and perform various jobs. The technology and interface design of the LMS are more important than other elements. because accessibility is the main ingredient for the success of the Implementation of the LMS that will lead to a better user experience instead of having an unsure response. An LMS involves functional variables that must be assessed to determine the basic software facilities accessible to support users' learning activities, other aspects, such as emotional factors, must also be considered (Hadiana,2022). Achieving learning goals, with or without the use of technology, necessitates a collaborative effort from all academic organizational stakeholders. In general, e-learning stakeholders are those who are impacted by their usage or interactions with these HEI technologies (Farhan et al., 2019).

Conclusion

Understanding graduate students' reactions to the LMS is beneficial to the university. The study findings indicate the need for additional research and development in the areas of usability, training, and user assistance. Improving user training programs and offering extra resources to assist students utilize the LMS effectively may help resolve the uncertainties and concerns expressed in the neutral comments. The institution can focus on supporting a positive user experience and fostering a more supportive environment by recognizing neutrality and addressing the potential causes for it. The institution can work to promote a stronger and more positive user perception of the LMS by continual evaluation, feedback gathering, and targeted changes, ultimately improving the entire learning experience for graduate students.

Further study and follow-up studies can look deeper into the precise factors that lead to neutral responses and investigate solutions for dealing with them. By actively resolving user complaints, the institution may develop a more positive impression of the LMS, boost user happiness, and facilitate effective system use for improved teaching and learning outcomes.

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