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# ACCEPTANCE OF A USB-BASED PORTABLE LEARNING RESOURCE ON LOCAL KNOWLEDGE (EXPERIENCE IN THE PHILIPPINES)

**Abstract.** Open educational resources (OER) are widely known worldwide, but the Philippines lacks information and implementation compared to other countries. Changes in educational strategies are unavoidable and have an impact on the acceptance of users with new technology. A USB-based Learning Resource, the PLR, was developed and tested to cater to users' flexible means of education. This paper is aimed to describe the level of acceptance of the Portable Learning Resource (PLR) as perceived by the respondents. Specifically, this paper provides a descriptive analysis of Portable Learning Resource acceptance among the respondents in terms of performance expectancy, effort expectancy, attitudes toward using Portable Learning Resource, facilitating conditions, self-efficacy, anxiety, and behavioral intention to use Portable Learning Resource. The study's respondents are the 32 randomly selected respondents, a combination of teachers, students, and librarians from different schools and libraries in the Philippines. An adapted and modified instrument was used and conducted online through Google forms. Results show that PLR is a valuable tool for teachers, students, and librarians in terms of their instruction and self-learning. There is evidence that students will embrace PLR as an OER tool for teaching and self-learning. Similarly, teachers and librarians believe that PLR assists them with their instructions and classroom management, and resource dissemination for remote users. Positive acceptance of PLR implies that PLR can manage and facilitate reusing, revision or derivation, remixing and localization, and redistribution of resources, enabling users to remotely transmit learning contents. However, the stakeholders' and administrators' initiative on the actual implementation and guidance through seminars, orientations, and instructions, as well as support and collaboration on the integration and operation, are necessary for proper and effective utilization of the system. The study concludes that the promotion of the adoption of Portable Learning Resource is necessary. This study recommends enhancing, maximizing, and promoting the PLR as an OER through collaboration with other institutions, administrators, teachers, librarians, and students to gain additional perspectives.

**Keywords:** LMS; OER; portable system; technology acceptance.

## 1. INTRODUCTION

Open educational resources (OER) were already developed before flexible learning. It has produced revenue among higher education institutions (HEI) worldwide [1] with significant opportunity in the global free exchange by making learning accessible and reusable to teachers and educators in various formats [2], [1]. Moreno-Guerrero et al. [3] once stated that "the development of so-called information and communication technologies (ICT) reflects technological progress in the educational field." ICTs affect instruction and learning measures because they advance creative academic activities and create new learning spaces. By eliminating physical space and time barriers and providing access to a large amount of

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information in various formats, pedagogical activities contribute to the transformation of the classroom and urge students to work on their inspiration, independence, inclusion, and mentality toward educational content. Among the ICT-based pedagogical actions is OER an affordable learning serves as alternative to expensive textbooks. Corbett and Brown [4] state that Malaysia, Bahrain, and other Asian nations see the significance of OERs to educators and students by offering freedom to understudies in satisfying their concentrated needs, particularly on the progressions and difficulties of the new modalities of learning, the adaptable/flexible learning which becoming a growing global industry. OERs offer freedom to access and use available information for whatever technological devices users use in seeking quality information resources. Fortunately, learning management systems like Portable Learning Management System (PLMS) enable the spread of information resource/s without the Internet [5]. Considering that other users may not have full access to the Internet, this study is crucial for OER development. This platform can run through a USB flash drive.

**The statement of the problem.** The Portable Learning Resource (PLR) was developed to cater to users' flexible education. PLR is a USB-based learning resource that enables users to access learning materials locally which runs through desktop or laptop in both online and offline environments. The development was employed by customizing the Portable Learning Management System. The resource was tested through different types of users and was helpful in instruction and self-learning. The study was anchored to the research "Portable Learning Management System: A Platform for Technology-Enhanced Flexible Learning in Schools with Challenging Internet Connectivity." The Philippines Commission on Higher Education funded the study.

**Analysis of recent studies and publications. "**Higher education is confronting various difficulties: globalization, a maturing society, developing rivalry between higher instructive establishments, and fast, innovative turn of events or technological development" [6] not to mention the implementation of flexible learning modality due to the pandemic. The idea of flexible learning emerged even during the pre-pandemic era. Eventually, "distance education has become a growing global industry in today's world" [4] a learning and teaching method in which learners and educators separates by a physical distance. As education expand its horizon to various modality, learning management system (LMS) also escalate the advancement of education since it "facilitates the communication with students through managing course materials, assignments, and announcements and serves as a centralized repository of learning materials for easy access, copy, and download by anyone enrolled in the course" [7]. Similarly, OERs helps users with their educational and informational needs that are free of cost and open to users' access. To improve and advance localization of education experts develop a portable learning management system (PLMS) which soon used in creating OER. PLMS is "an innovative teaching and learning content management system that can be moved between environments and is adaptable to many infrastructure specifications" that can be used as an OER platform in both online and offline environments.

The Philippines still lacks information and implementation in terms of OER. However, the guidelines on flexible learning state that learning shall be supported with different learning platforms. One learning platform is the LMS [8]. In response to flexible learning, PLMS has been a new strategy. To test its functionality, reliability, usability, efficiency, portability, and pedagogical characteristics various methods of tests consequently conducted. Although the implementation, promotion, and training of PLMS through teachers and educators are ongoing, positive and encouraging, its implementation among librarians and students is not widely observed [9].

Understanding why people accept or reject new ICTs has been one of the most challenging issues in the study of new technology adoption [10]. Technology adoption goes through various stages such as awareness, assessment, acceptance, learning, and usage [11] or

the user awareness, interest, evaluation, trial, activation, and adoption. Technology adoption refers to accepting, integrating, and using new technology in society [12]. Awareness is becoming aware of the product's existence. Interest is where potential users search for more information about the product or technology. In the assessment or evaluation and trial stage, the customer considers the product a viable option. It is the stage of appraising or considering the technology in areas of efficiency, effectivity, usability, and the ease-of-use [11]. Users in the acceptance (adoption) stage are those who decide to acquire and use the technology or choose not to adopt it. In the learning stage, potential users progress the skills and knowledge required to use the technology effectively and efficiently. The usage stage is where users apply and use the technology accordingly, which provides productivity.

**The article's goal**. This article aims to describe the level of acceptance of the Portable Learning Resource as perceived by the respondents. Specifically, this paper provides a descriptive analysis of Portable Learning Resource acceptance among the respondents in terms of performance expectancy, effort expectancy, attitudes toward using PLR, facilitating conditions, self-efficacy, anxiety, and behavioral intention to use PLR. Ultimately, this paper fills in the limited literature on OER adoption using portable systems in developing countries like the Philippines, where Internet connectivity is always challenging.

## 2. THE THEORETICAL BACKGROUNDS

Several methods were considered in the development and evaluation of the PLR. The knowledge, attitude, and practices (KAP) model determine the need to create a platform to be used by librarians, educators, and students.

KAP provides the framework to assess the KAP-OER of academic librarians in higher institutions in the Philippines. It primarily assesses the baseline levels of awareness about OER and practices. "OERs are educational resources available to anyone free of cost and under an open license to allow others to retain, reuse, revise, remix, and redistribute them with few or no restrictions" [13].

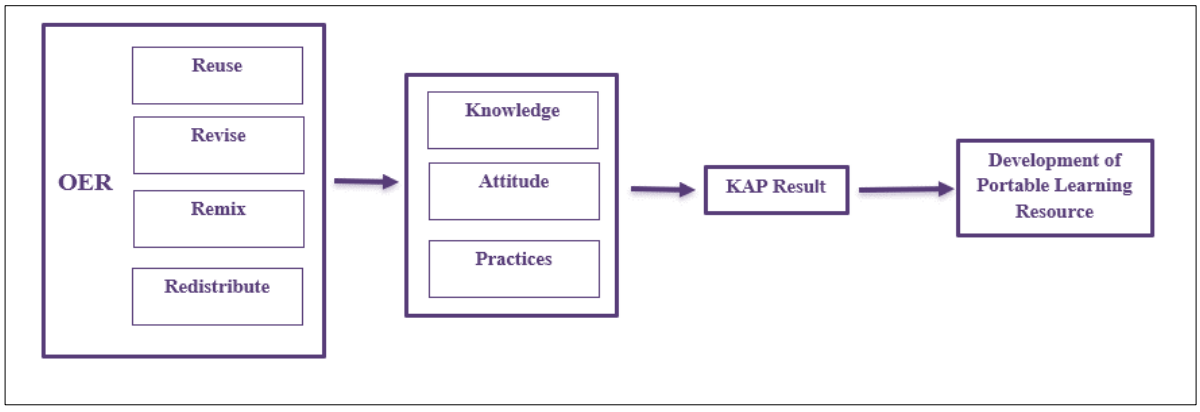


*Figure 1. Conceptual Framework: Knowledge, Attitude, and Practices towards Open Educational Resources in Higher Education Institutions in the Philippines: Development of a Portable Learning Resources*

These four OER openness elements (reuse, revise, remix, and redistribute) serve as a basis for measuring the academic librarians' KAP, as shown in the illustration in Figure 1. On the one hand, knowledge means participant understanding of any given topic [14], in this case, academic librarians' awareness of OER. It is the ability to receive, retain, and use information mixed with experience and skills.

On the other hand, an attitude refers to participants' feelings about the topic [14], which is a propensity to react in a definite way to a specific situation [15], in this case, to an OER. While practices are how participants demonstrate their knowledge and attitude [14], they also prove their knowledge and attitude. It means applying rules and knowledge regarding action [15]. The KAP is treated as a cohesive variable and was used in determining the level of the academic librarians' KAP. It also implies that all items in the components possessed knowledge, attitude, and practices. The result of the Librarians' KAP about and towards the OER four concepts of openness was taken to get the other variables' relationship and differences, and the key in developing a portable learning resource.

To assess specific technology, an evaluation is needed. Coates, James, and Baldwin [16] suggested that the "adoption and deployment of an LMS underlines the importance of a cluster of high-level reviews and investigations." These includes the leadership initiation and endorsement of ongoing evaluation such as LMS cost both initial and recurrent; personnel needed for management, support and training; and integration with other institutional systems [17]. [18] views technology evaluation as a "set of principles, methods and techniques/tools for effectively assessing the potential value of a technology and its contribution to company's competitiveness and profitability." Its focus is on how easy the innovation will be to learn and implement, and the degree to which the innovation will improve the user's personal or job-related performance [19].

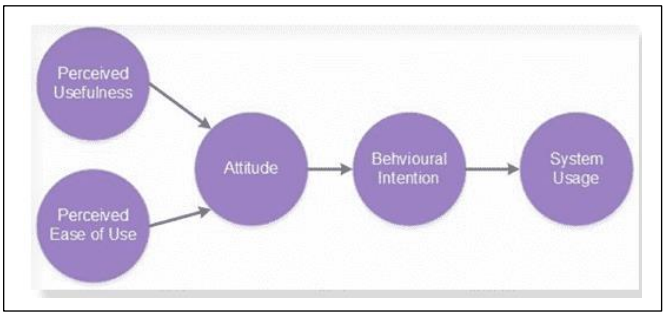


*Figure 2. Technology Acceptance Model (TAM) (adopted from Allen, 2022 from the TAM theory of Davis 1986)*

It is necessary to provide a concise review of the design, use, and potential of the specific creation. With that, the TAM model is utilized to measure the level of potential use and effectivity of PLR. The Technology Acceptance Model (TAM) is "designed to measure the adoption of new technology based on customer attitudes" [20] which combines both behavioral product attribute [20] factors in a consumer expected utility maximization [11]. Literature recorded that the success of the new technology adoption is based on positive attitudes towards two measures: 1). Perceived usefulness and 2.) Perceived ease of use [20], as shown in Figure 2.

According to Lai [21], "the goal of TAM is to explain the general determinants of technology acceptance that lead to explaining users' behaviors across a broad range of end-user computing technologies and user populations." Another essential theory that served as a guiding principle on technology acceptance, as illustrated in Figure 3, is the Unified Theory of Acceptance and Use of Technology (UTAUT). UTAUT model "examines the acceptance of technology, determined by the effects of performance expectancy, effort expectancy, social influence and facilitating conditions" [22].

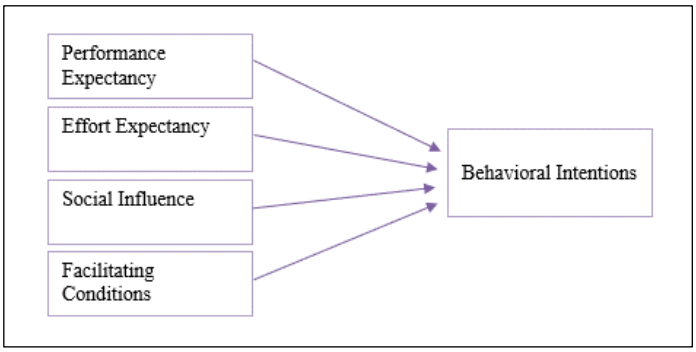


*Figure 3. Unified Theory of Acceptance and Use of Technology (UTAUT) (adopted from Marikyan & Papagiannidis (2021)*

Performance expectancy is "the degree to which an individual believes that using the system will help him or her to attain gains in job performance" [23]. It is based on the constructs from the Technology Acceptance Model (TAM), TAM2, Combined TAM and the Theory of Planned Behavior, and many more [22]. Effort expectancy is "the degree of ease associated with using the system [23]. It is constructed from perceived ease of use and complexity driven by TAM, MPCU, and IDT, which share similar definitions and scales [22].

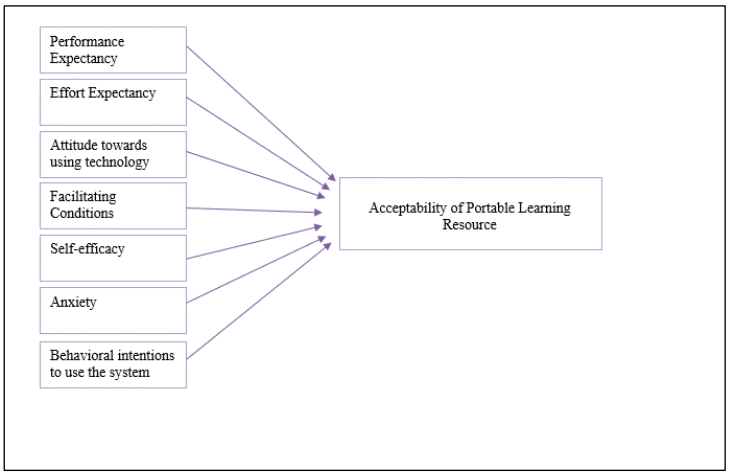


*Figure 4. Conceptual Framework: Acceptance of a USB-based Learning Resource*

Social Influence is "the degree to which an individual perceives that important others believe he or she should use the new system" [23]. Social influence is similar to the subjective norms, social factors, and image constructs used in TRA, TAM2, TPB, and many more theories. While facilitating conditions refer to "the degree to which an individual believes that an organization and technical infrastructure exists to support the use of the system" [23]. The facilitating conditions are compatibility, perceived behavioral control, and facilitating needs drawn from TPB, CTAMTPB, MPCU, and IDT" [22]. TAM and UTAUT are two theories used for explaining technology acceptance. In this paper, to describe the user's acceptance of PLR, TAM and UTAUT was used and modified to define users' acceptance in terms of the following components: performance expectancy, effort expectancy, attitude toward using technology, facilitating conditions, self-efficacy, anxiety, and behavioral intention to use the system as shown in figure 4, however not with the variables relationships.

## 3. RESEARCH METHODS

The study employed a descriptive analysis of PLR acceptance using an adapted survey questionnaire through Google forms from Marcial [24]. The study was conducted at local schools and libraries in Dumaguete City. The study's respondents were the 32 randomly selected respondents, a combination of teachers, students, and librarians from different schools and libraries in Dumaguete City, Negros Oriental, Philippines. These respondents were chosen to evaluate the PLR. They were either those with prior knowledge or those without knowledge of a USB-based learning resource.

The instrument used in data gathering to accomplish the study's specific objectives was a survey questionnaire. The statements on the instrument were adapted from Marcial [24] questionnaire, which was based on the UTAUT. Respondents were asked to evaluate their agreement level with the statements according to the Likert scale choices: disagree, somewhat agree, agree, and strongly agree. The points and ranges were obtained by adding 0.75 to the base (1.00). The 0.75 intervals is calculated by subtracting the scales (4.00) by one. After getting the difference, it is divided by the overall score, which equals 0.75, as shown in Table 1.

*Table 1*

**Acceptability of Portable Learning Resource Interpretation Table**

| Range | | Verbal Description |
|---|---|---|
| 1.00 | 1.75 | Disagree |
| 1.76 | 2.40 | Somewhat Agree |
| 2.50 | 3.24 | Agree |
| 3.25 | 4.00 | Strongly Agree |

*Table 2*

**Demographic Profile of the Respondents**

| ***Sex*** | **Frequency** | **Percentage** |
|---|---|---|
| Male | 10 | **31.25** |
| Female | 22 | **68.75** |
| ***Age*** | | |
| Average Age: | | **23.72** |
| | | |
| ***Use of PLMS, mySOUL, and PLR*** | | |
| **Have you been using PLMS or mySOUL?** | **Frequency** | **Percentage** |
| Yes | 10 | **40.63** |
| No | 13 | **59.38** |
| Total | 32 | **100** |
| **How long did you spend with the PLR-IK? (Only an estimate)** | **Frequency** | **Percentage** |
| Less than one hour | 14 | **43.75** |
| 1 to 2 hours | 15 | **46.88** |
| 3 to 5 hours | 2 | **6.25** |
| 6 to 10 hours | 1 | **3.13** |
| 11 to 12 hours | 0 | **0** |
| more than 12 hours | 0 | **0** |
| Total | 32 | **100** |

Table 2 shows the demographic profile of the respondents. Among the respondents, female participants have the highest portion of the population of 68.75%, while males have a

31.25% portion among the 32 respondents. The average age of participants who participated in the study was 23.72, categorized as students, librarians, and faculty.

In terms of the use of PLMS and mySOUL use, thirteen respondents (59.38%) have not used the platforms implies that they do not have background knowledge of what PLR is. Ten respondents (40.63%) have used the platforms similar to PLR. For the time the respondents spent with PLR, 15 respondents (46.88%) recorded spending 1 to 2 hours. The lowest percentage is zero for 11 to 12 hours and more than 12 hours. No one among the respondents spent 11 hours or more in exploring and navigating the PLR. The selected respondents may or may not have prior knowledge about the PLR; however, most of them know about the Silliman University Learning Management System. In the conduct of the study, no training and or workshops had yet been conducted for students and librarians. However, for teachers, training is ongoing.

## 4. THE RESULTS AND THE DISCUSSION

Table 3 shows the acceptance level of the respondents on PLR in performance expectancy. The result reveals that the performance expectancy has an overall mean of 3.33, described as "strongly agree." The highest mean is 3.34, still described as "strongly agree" on items "I find PLR useful as a library resource" and "Using PLR increases my learning productivity." The lowest mean is "Using PLR enables me to accomplish tasks more quickly." Still, it is described as "strongly agree."

*Table 3*

**Performance Expectancy**

| Acceptability Statements | Mean | Description |
|---|---|---|
| I find PLR useful as a library resource. | 3.34 | Strongly Agree |
| Using PLR enables me to accomplish tasks more quickly. | 3.31 | Strongly Agree |
| Using PLR increases my learning productivity. | 3.34 | Strongly Agree |
| **Overall Mean** | **3.33** | **Strongly Agree** |

The second component, the effort expectancy, as shown in Table 4, reveals that the overall mean is 3.20, described as "agree," which means that the effort expectancy has a lower level of acceptance than the previous one, which is the performance expectancy. The highest mean among the items under effort expectancy is 3.25, which is described as strongly disagree, while the lowest mean is on the statement "I find PLR easy to use," with a mean of 3.13. In terms of attitude toward using technology (PLR), the table shows that the overall mean is 3.00, which is described as strongly agree.

*Table 4*

**Effort Expectancy**

| Acceptability Statements | Mean | Description |
|---|---|---|
| My interaction with PLR is clear and understandable. | 3.25 | Strongly Agree |
| It is easy for me to become skillful at using PLR. | 3.22 | Agree |
| I find PLR easy to use. | 3.13 | Agree |
| Learning to operate PLR is easy for me. | 3.19 | Agree |
| **Overall Mean** | **3.20** | **Agree** |

As shown in Table 5, the highest mean of the items under attitude toward PLR is 3.69, described as “strongly agree.” The lowest mean is 2.59 on the item "Using PLR as a resource is a good idea," which is described as "Agree."

*Table 5*

**Attitude toward using technology (PLR)**

| Acceptability Statements | Mean | Description |
|---|---|---|
| Using PLR as a resource is a good idea. | 3.69 | Strongly Agree |
| PLR makes learning more interesting. | 2.94 | Agree |
| Learning with PLR is fun. | 2.59 | Agree |
| I like learning our lessons with PLR. | 2.78 | Agree |
| **Overall Mean** | **3.00** | **Agree** |

Regarding facilitating conditions, the overall mean is 2.59, described as agree. From Table 6, the highest mean is 2.69, agreeing with the item "I have the knowledge necessary to use PLR." The lowest mean is on the item "User/s is/are available for assistance with PLR difficulties," still described as "agree."

*Table 6*

**Facilitating Conditions**

| Acceptability Statements | Mean | Description |
|---|---|---|
| I have the resources necessary to use PLR. | 2.63 | Agree |
| I have the knowledge necessary to use PLR. | 2.69 | Agree |
| User/s is/are available for assistance with PLR difficulties. | 2.47 | Agree |
| **OVERALL MEAN** | **2.59** | **Agree** |

Table 7 displays self-efficacy. The overall mean is 2.87, which is described as agree. The highest mean would be 3.25 on the item "if there were no one to call for help if I got stuck," described as "strongly agree." The lowest mean is 2.19, described as "somewhat agree."

*Table 7*

**Self-Efficacy**

| Acceptability Statements | Mean | Description |
|---|---|---|
| ***Self-efficacy (I could complete a job or task using PLR…)*** | | |
| …if there was no one around to tell me what to do as I go. | 2.19 | Agree |
| …if there were no one to call for help if I got stuck. | 3.25 | Strongly Agree |
| …if I had a short time to complete the job for which the software was provided. | 2.97 | Agree |
| …if I had no built-in help facility for assistance. | 3.06 | Somewhat Agree |
| **Overall Mean** | **2.87** | **Agree** |

In the anxiety component, Table 8 reveals that the overall mean is 3.64, which is described as strongly agree. The highest mean, 3.84, is still described as disagreeing with the item " PLR is not intimidating to me." The lowest mean is on the item "I feel confident about using PLR," with a mean of 3.25, described as "strongly agree."

*Table 8*

**Anxiety**

| Acceptability Statements | Mean | Description |
|---|---|---|
| I feel confident about using PLR. | 3.25 | Strongly Agree |
| It will not scare me to think that I could lose a lot of information using PLR by hitting the wrong key. | 3.72 | Strongly Agree |
| I won't hesitate to use PLR for fear of making mistakes I cannot correct. | 3.75 | Strongly Agree |
| PLR is not intimidating to me. | 3.84 | Strongly Agree |
| **Overall Mean** | **3.64** | **Strongly Agree** |

The overall mean for the last component of acceptability, behavioral intention to use the system, is 3.03, which is described as "agree." The highest mean is 3.06 on the item "I predict I will use the system in the future," and the lowest mean is 3.00, meaning respondents agree with the statements.

*Table 9*

**Behavioral intention to use the system**

| ***Behavioral intention to use the system*** | | |
|---|---|---|
| I intend to use the system in the future. | 3.00 | Agree |
| I predict I would use the system in the future. | 3.06 | Agree |
| I plan to use the system in the future. | 3.03 | Agree |
| **Overall Mean** | **3.03** | **Agree** |

Table 10 presents the overall means of the acceptability of PLR, including the seven acceptability components. As shown in the results table, the highest overall mean is on the anxiety component, with an overall mean of 3.64, described as strongly agree. The lowest mean is on the facilitating conditions component, with an overall mean of 2.59, described as "agree."

*Table 10*

**Summary of Results**

| ***Components*** | ***Means*** | ***Descriptions*** |
|---|---|---|
| Performance Expectancy | 3.33 | Strongly Agree |
| Effort Expectancy | 3.20 | Agree |
| Attitude toward using technology (PLR) | 3.00 | Agree |
| Facilitating Conditions | 2.59 | Agree |
| Self-efficacy | 2.86 | Agree |
| Anxiety | 3.64 | Strongly Agree |
| Behavioral intention to use the system | 3.03 | Agree |
| **Mean of means** | **2.56** | **Agree** |

Based on the results in terms of the overall experience, the two items, as shown in Table 11, present the following results: For item 1, 19 respondents (59.38%) said it was their first-time using PLR, while 40.63% had never used PLR before. For item 2, results show that 96.88% of respondents agreed to recommend platforms like PLR. This means that, although most of the respondents were new to PLR, they still expressed support, optimism, and a satisfactory level of acceptability for the PLR. While 3.13 percent were opposed to recommending the PLR.

*Table 11*

**Overall Experience**

| **Overall Experience** | **Numeric Value** | **Frequency** | **Percentage** |
|---|---|---|---|
| 1. It was my first time to use a learning management system like PLR. | | | |
| Agree | 1 | 19 | 59.38 |
| Disagree | 2 | 13 | 40.63 |
| Total | | 32 | 100.00 |
| | | | |
| 2. I recommend that there will be more like this. | | | |
| | | | |
| Agree | 1 | 31 | 96.88 |
| Disagree | 2 | 1 | 3.13 |
| Total | | 32 | 100.00 |

When asked about comments and recommendations, many perspectives arose. The following report was gathered to specify which part of the system has issues for the respondents. One respondent says, "The PLR was amazing, and I enjoyed answering the questions found in the quiz." Other respondents stated that the PLR is quite interesting, sound, and user-friendly, similar to Google Classroom. One respondent has a good impression of the PLR but has comments on typographical errors in some PLR self-activity questions. Others never had any comments or suggestions. From the results of the acceptability test on PLR, most respondents have a positive and great impression of the resource.

As perceived by the respondents, performance expectancy indicates that the PLR provides a contributing factor to the fulfillment of each of their tasks. Confidently, teachers, students, and librarians viewed PLR as a helpful tool for instruction, self-learning, and dissemination of resources. PLR helpfully provided new sources of resources, supplementary materials, and self-learning activities for their learning experiences. It agrees to the statements that "a system attracts users through an increasing efficiency of teaching by delivering large-scale resource-based learning programs that facilitate flexible course delivery [25] as cited in [16].

In terms of effort expectancy, the results show that although not like performance expectancy but still in a positive perception. PLR was found to be clear and understandable for the respondents. Similarly, results show a moderate level of perceptions for attitude toward using technology (PLR), facilitating conditions, self-efficacy, and behavioral intention to use the system.

The result shows low anxiety in using and accessing PLR respondents, as they yielded a high degree of perception. It implies they are confident while operating the system. As sought from the result, positive acceptance among the teachers, students, and librarians of PLR is suggested.

As a library resource, it affirms that "each level of LMS integration depends on what the librarian can offer to library community, what teaching faculty instructional needs, and what will best benefit the students [26]" Furthermore, Landis [26] states that "understanding the levels of integration and preparing what that might look like for a specific course can help the librarian when communicating with faculty on what services he/she can provide." Since PLR is developed as a library resource, an OER, librarians' skills are challenged in terms of resource management and organization.

The openness of learning frees learners from time and place constraints while offering flexible learning opportunities [27]. When it comes to the OER four R's of openness, PLR acceptance implies that it is a good platform in reusing resources through integration of unedited, original format of such resources. Users, specifically teachers and librarians, can freely integrate resources without editing or any means of derivation into the PLR with the proper citations, references, and acknowledgement of the author or creator of the resources. For students as learning tools PLR offers them the ability to download materials including videos and images and use all parts of the work for self-learning and classroom learning.

PLR acceptance implies that PLR can be positively managed when revising resources embedded in or integrated into the platform. It literally helps users manage how the work derivation must look according to the users' needs or the localization of resources. Specifically for teachers, PLR really helps them to organize, manage, and edit various materials according to their individual needs for classroom instruction.

Acceptance of PLR implies that PLR is an excellent resource for remixing resources. PLR assists users in localizing educational and informational materials to address local forms of instruction and local learning needs, especially considering the importance of flexible learning and the issue of Internet access.

Positive acceptance of PLR implies that it is a good and affordable platform for the redistribution of learning resources that enables the dissemination of educational and

informational materials with minimal or no use of the Internet, enabling users to remotely transmit learning content to learners.

However, it does not hide the responsibility of the stakeholders and administrators like librarians who will customize the PLMS to initiate the actual implementation and guidance to students, teachers, and other unskilled librarians on the integration and operation of PLR. Systems administrators needs to provide seminars, orientations, and instructions to assist learners, instructors/educators, and librarians with the proper and effective utilization of the system. Leadership and administrators' support and collaboration with in-house experts are required to develop a plan for resource ownership among students [5] as part of the classroom and library resources. They must regulate reasonable access for students and help them with the technical aspect of the PLR.

This study was aimed mainly to describe the acceptance level of the newly developed PLR among the students, teachers, and librarians limited to the 32 selected respondents. It is limited only qualitatively in describing the seven components of the UTAUT model [23]. It does not measure the relationships or differences between variables. Furthermore, this study does not test correlations with other variables and moderators mentioned [23] and other literature.

## 5. CONCLUSIONS AND PROSPECTS FOR FURTHER RESEARCH

The study concludes that the USB-based learning management system is acceptable among librarians, teachers, and students in higher education institutions. Thus, there is evidence that students will embrace the portable learning resource as a tool for instruction and self-learning since they believe it helps them gain knowledge through self-learning. Similarly, teachers believe that PLR assists them with their instructions and classroom management. While librarians believe that using PLR, OER implementation and resource dissemination will be more flexible for users, especially remote users with limited Internet access. A satisfactory ease of use is also revealed, wherein most of the respondents believe that the tool is easy to navigate and familiar with.

The PLR has gone through a process of levels of decision-making, programs, pedagogies, and methodologies; use of technology; and innovative solutions for teaching that affirm openness that must be explicit, planned, and done systematically [27] especially in the way of localizing learning. Thus, the learning pedagogies and methodologies are managed with the use of portable technology to fit in local knowledge that would bring the concepts of OER openness: revise, reuse, remix, and redistribute. Because PLR is packaged in an LMS-specific course resource [28], it can make course development, teaching, and learner outcomes easier and faster, as well as help increase learner outcomes. At the same time, it enables wider access to the latest resources [29]. However, customizing PLR is a bit challenging for administrators. It needs multiple checks and evaluations for errors as part of the quality assurance strategy.

The study shows that users accept PLR, and it is necessary to promote its development—to enhance, maximize, and promote the PLR as an OER through collaboration with other institutions, teachers, and students. Research on the acceptability of PLR throughout the Philippines involves administrators, librarians, teachers, and students. It is also vital to compare librarian perspectives with those of other stakeholders, which provides additional views when planning [30]. Exploring the depth and breadth of the topics, including instructional design, is also recommended in the PLR integration. Moreover, a comprehensive correlational study is also suggested to assess factors that affect PLR acceptance as an OER among library users.

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# ВИКОРИСТАННЯ ПОРТАТИВНОГО НАВЧАЛЬНОГО РЕСУРСУ НА ОСНОВІ USB З УРАХУВАННЯМ МІСЦЕВИХ ОСОБЛИВОСТЕЙ (ДОСВІД ФІЛІППІН)

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**Анотація.** Відкриті освітні ресурси (ВОР, англ. Open Educational Resources (OER)) широко відомі в усьому світі, але в системі освіти Філіппін, у порівнянні з іншими країнами, існує недостатньо інформації щодо їх впровадження. Зміни в освітніх стратегіях неминучі та впливають на сприйняття користувачами нових технологій. Портативний навчальний ресурс (ПНР) на основі USB був розроблений і протестований як гнучкий засіб навчання. Метою статті є опис рівня сприйняття ПНР респондентами. Зокрема наведено описовий аналіз сприйняття Портативного навчального ресурсу респондентами з точки зору: очікуваної продуктивності, очікуваних зусиль з використання, ставлення до використання Портативного навчального ресурсу, сприятливих умов, самоефективності, занепокоєння та поведінкових намірів використовувати Портативний навчальний ресурс. Учасниками дослідження були 32 випадково відібраних респонденти, які є представниками вчителів, студентів і бібліотекарів з різних шкіл і бібліотек Філіппін. Використовувався адаптований і модифікований інструмент, який був задіяний онлайн через Google-форми. Результати показують, що ПНР є корисним інструментом для вчителів, студентів і бібліотекарів з точки зору їх навчання та самонавчання. Дослідження показало, що студенти сприймають ПНР як інструмент ВОР для навчання та самонавчання. Так само вчителі та бібліотекарі вважають,

що ПНР допомагає їм з інструкціями та керуванням класом, а також допомагає розповсюджувати навчальні ресурси віддаленим користувачам. Позитивне прийняття ПНР означає, що ПНР допомагає керувати навчальними ресурсами та полегшує їх повторне використання, переглядати або знаходити джерела, реміксувати та локалізувати їх, а також перерозподіляти ресурси, дозволяючи на відстані передавати навчальний вміст користувачам. Однак для належного та ефективного використання системи необхідні: ініціатива зацікавлених сторін і адміністраторів щодо фактичного впровадження ПНР; пояснення та інструкції з використання, отримані на семінарах; технічна підтримка та співпраця всіх учасників навчального процесу. Зроблено висновок про необхідність сприяння впровадженню ПНР у навчальний процес. Крім цього, надані рекомендації щодо подальшого покращення ПНР, а також підтримки його використання як ВОР із залученням до співпраці інших установ, адміністраторів, викладачів, бібліотекарів та студентів.

**Ключові слова:** LMS; ВОР; портативна система; прийняття технології.

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