

Library Management Information System for Public High Schools: An Impact Assessment

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Abstract

The use of computers has the potential to revolutionize teaching and learning, bringing about significant improvements in education. The library is said to be the brain of any institution, where learning and knowledge combine to make the library a worthwhile destination. The obvious relationship between library and technology is so strong that computer use influences how people learn and communicate. The goal of this research was to determine the effectiveness and impact of the extension project in 2019 on the beneficiaries and to the adopted-school. The respondents were the 50 beneficiaries composed of library users, librarians, and teachers of Estancia National High School, Estancia, Iloilo. A researcher-made questionnaire was used in gathering the data. Based on the result, the extension project shows that the participants agreed to use the system and had a significant impact for their library needs. Also, the beneficiaries were overwhelmed and heighten their interest to use this kind of web-based library management information system. Furthermore, this extension program was to utilize a technology-transfer based system for public high school that provide an efficient, convenient and productive web-based information system that replaced the manual-based system in the school library particularly in borrowing and returning of books. The system developed in this project is novel in terms of functionality, usability, and efficiency. The project employed a technology-based system that aids the administrator in the management of library data.

Keywords: Library, Management Information System, Web-based System, Public High Schools, Extension Program, Assessment

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I. INTRODUCTION

With the advancement of computer technology, multimedia technology, and modern communication technology (including network technology), countries all over the world support the development of digital information, thereby igniting a new round of information digitization, there were various methods of keeping records in the library. Records were kept in the library on shelves, and each shelf was labeled in an alphabetical or numerical order, in which the categories of books available were arranged on different positions on the shelves and were also recorded on the library manuscript, and when any book is to be referenced, the manuscript is referred to, to know the position of such required book by the person who requested the book. Following the invention of the computer, various researchers pursued various approaches to an automated library management system, which is also the focus of this project.

Library is an organized collection of information sources which is made accessible to the people. The library usually contains the information physically or in a digitized format (Masiye, 2019). The tons of books and research works are captivating the students to improvise their knowledge in all perspectives. It guides the students to promote their views differently. This knowledge optimizes the student to achieve a better result in academic as well as personal skill development. Improvisation in technology causes the demand for developing a way to enhance the traditional library set up to digital one (Shanmugam et al., 2020). The process of creating digital information, the library, particularly the digital information of public high school libraries, plays an important role. Public High School libraries have a large amount of information storage, are interactive, and are frequently used. Connect teaching implementation, scientific research, and technological achievements. The school libraries have evolved into a hub for information concentration, processing, and innovation. As a result, in order to promote digital informatization in school construction libraries have grown in importance as a source of research material. That is to say, the gathering, collection, distribution, query and conventional business management of library books and periodicals and audio-visual materials to computers and carry out efficient and accurate digital library resources information management the resource of libraries (Yanni, 2016).

As a result, developing a library information management system capable of handling massive resource visits and adapting business processes flexibly is essential. It is vital to embrace change. Library need to be ready for change and bring the technology to the library in order to retain their clientele's interest in visiting the library (Yunus et al., 2017).

Library Management System is an application that portrays library system which could be generally small or medium in size. It is used by the librarian to categorically manage the library by the virtue of using a computerized system where he/she can record various transactions like issue of books, return of books, addition of new books, addition of new students, track on how many books available in library etc. (Ashutos & Ashish, 2012). Library system offers many flexible and convenient features, allowing librarians and library users to maximize time and efficiency. Library System gives the all-detailed information about students, staff and books (Samuel, Godfred & He, 2018). In addition, the information system is a combination of people, hardware, software, communications networks, and data sources compiled, transformed, and experienced streaming processes within an organization (Pamungkas, 2018).

Estancia National High School (ENHS) is a public high school located at the Municipality of Estancia, Province of Iloilo. The school provides good education experience and the institution is very productive in terms of quality education and a training ground for the students. Currently, Estancia National High School is using the manual-based system of book transaction wherein occurrence of human errors is prevalent. Students have library card which serves as an entry in order the students to borrow books. On the other hand, the librarian uses log books in listing the books available in the library. To generalized, the processes of transactions in Estancia National High School Library are very tedious that students, faculty and library personnel exert too much effort and time in dealing with the operation. The flow of operations inside the library is indeed time-consuming.

For this project, a Library Information Management system is a web-based system that will be used to manage library books and members (users) of the library. The system will be ideal for use in secondary schools. The objective of the system is to help libraries manage the books and library users/members in a more efficient and effective way, as opposed to maintaining the records in a manual log book. The system was developed using web technologies, which makes it possible to be hosted on the internet or intranet for easy access by the institutions.

In connection to this, the proponents extend a support at ENHS through an extension program with the use of Library Management Information System for Public High School to help out the library personnel dealing and accomplishing the everyday transactions inside the library and the library users in borrowing and returning of books conveniently. This project was to provide an efficient, convenient and reliable solution to the necessities of the library users and library personnel. Furthermore, it aimed to reduce the time and effort and lessen the workload regarding with operations in the library. With this computerized system there will be no loss of book record or member record which generally happens when a non-computerized system is used.

II. METHODOLOGY

2.1 Respondents of the Study

The respondents of the study were the 50 beneficiaries composed of library users, librarians, and teachers of Estancia National High School, Estancia, Iloilo. This extension project was conducted by the College of Information and Computing Studies.

2.2 Data Gathering Procedure

The College of Information and Computing Studies Extension Team, administered a researcher-made questionnaire to the identified respondents of the adopted-school in Estancia, Iloilo. Moreover, the respondents were oriented of the process involved, including the guarantee of their anonymity. After the permission was sought from the Principal of Estancia National High School, the aforementioned questionnaire was personally administered to the target respondents. The treatment of data took place using the frequency and percentage statistical tools after the answered questionnaires were retrieved.

2.3 Extension Activities Conducted

This study determines the effectiveness and impact of the project implemented under the College of Information and Computing Studies of the Northern Iloilo State University – Main Campus in Estancia, Iloilo with the following details shown in Tables 1.

Table 1. Extension Project Conducted in 2019

| Extension Program | Venue | No. of Beneficiaries |
|---|-------------------------------|----------------------|
| 1. Training-Seminar on Library Management Information System (LibMIS) for Public High Schools | Estancia National High School | 50 participants |

2.4 Research Locale

This extension project was conducted at Estancia National High School, Estancia, Iloilo. The adopted school were specifically selected as one of the target beneficiary of the said program. The system was created for ENHS as part of the technology-transfer extension program of the IICS to its community and it was implemented for three years now.

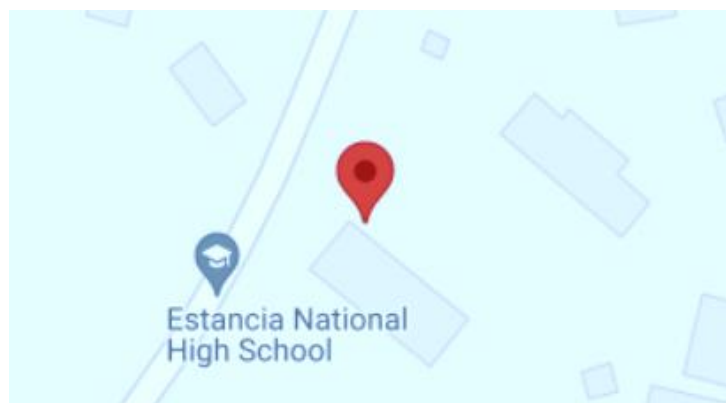


Figure 1. Map of Estancia National High School, Estancia, Iloilo

III. Results and Discussion

3.1 Effect of Extension Projects to the Individual Participant/ Recipient/ Beneficiary of the Adopted School

Table 2 shows the effects of extension projects on the adopted school. It can be gleaned that 148 (98.67%) respondents believed that the implemented extension projects, greatly helped to their library needs. More so, 145 (96.67%) of them enhanced their knowledge and skills, while 143 (95.33%) of them would like to use the system, 140 (93.33%) respondents were learned to use the system quickly. 149 (99.33%) of them found the various functions in the system were well integrated, while 139 (32.67) of them can use the system without the help of technical support. Furthermore, 147 (98%) respondents were motivated to adopt and apply new technologies and innovation based on the projects implemented. 148 (98.67%) respondents believed that it was able to find the information quickly using the system. Hence, 135 (90%) believed that they can easily familiarized the steps on how to use the system, meanwhile 142 (94.67%) were easily navigate command buttons of the system. Additionally, 150 (100%) of them were able to complete the task quickly using the system and 144 (96%) of them felt confident using the system.

Table 2. Effects of Extension Projects as Perceived by the Respondents

| Indicators | Frequency | Percentage (%) |
|--|-----------|----------------|
| I found the system helpful to my library needs. | 148 | 98.67 |
| It enhanced the knowledge and the skills of the respondents. | 145 | 96.67 |
| I think that I would like to use this system. | 143 | 95.33 |
| I learned to use the system quickly. | 140 | 93.33 |
| I found the various functions in the system were well integrated. | 149 | 99.33 |
| I can use the system without the help pf technical support. | 139 | 92.67 |
| It motivated the beneficiaries to adopt and apply new technologies and innovation based on the projects implemented. | 147 | 98 |
| I was able to find the information I needed quickly using the system. | 148 | 98.67 |
| I can easily familiarized the steps on how to use the system | 135 | 90 |
| I can easily navigate command buttons of the system. | 142 | 94.67 |
| I was able to complete the task quickly using the system. | 150 | 100 |
| I felt very confident using the system. | 144 | 96 |

IV. Conclusion

The findings revealed that the clients were confident in their ability to use the system. The recipients express their eagerness and willingness to use the extension project that has been developed. This system was developed for ENHS as part of the College of Information and Computing Studies technology-transfer extension program to the community. This is also a first step toward automating the library's services. The system accomplished the majority of the goals by enabling library staff to keep track of their clients and the resources they manage. All information has become easier to manipulate as a result of the nature of electronic storage, making report generation simple. The task of finding reading material has been simplified because various

criteria can be used to complete the task. The application of the skills learned in the training in their workplace makes them more productive, creative, and resourceful. The extension program needs further improvement, and sustain the services to transfer knowledge and provide benefits to the community.

V. Recommendation

The proponents recommend that this system be continuously built to handle other library services such as serials and periodicals management, book reservations, automatic email and SMS notification for reminders to reduce book penalty and loss of books. Because the Library Management Information System for Public High School was usable and productive to the library users, it was suggested that the implementation be considered in other public high schools so that the library users could benefit. More extension programs be provided to further empower the partner communities.

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