

**STUDENT ENROLMENT MANAGEMENT SYSTEM
OF LYCEUM OF APARRI**

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ABSTRACT

The study aimed to develop a fully customized Student Enrolment Management System (SEMS) for Lyceum of Aparri to facilitate the enrolment and accounting process and to cater to the needs of all the clients and the staff in the delivery of frontline services. This study followed the framework of Design Science Research for Information Systems, thus, the researcher identified the problems encountered in the enrolment and accounting process, defined the objective of the study, designed and developed the system, deployed, evaluated, and presented the results of the study. The SEMS operates in multiple computer units over the network having a centralized database for data storage and retrieval. It has different integrated features that support the needs of the frontline service providers and the clients. The overall functionality of the SEMS increased the efficiency of the frontline service providers since most of the processes are automated. The results of the survey along with quality of services, accuracy of records and reports, and timeliness reveal that SEMS is a significant and an efficient instrument in the delivery of frontline services.

Keywords: *Information system, accounting system, enrolment system, enrolment process, computerized system*

INTRODUCTION

As educational institutions move away from traditional grading and towards the assessment of specific skills, information technology redefines how to judge whether academic key persons have realized their objectives. The advent of computers has long gauged manual dealings with tasks at hand as much of what is used in earlier student information systems and school administration worked on outdated code base and data accessibility. The predominant issues in today's education sector center upon enrolment management, student services, and student academic outcomes. Hence, it is with this regard that a Student Enrolment Management System is a must as it is no longer a luxury but a necessity for all growing schools, colleges and universities.

The use of technology in the academe is already much expected in the present time. In addition, the Philippine Senate introduced a bill Enhancing Education through Technology Act of 2001 or Achievement through Technology and Innovation Act (ATTAIN, 2000). The Student Enrolment Management System is a management information system for educational establishments that provides capabilities for enrolment, registrations, and evaluations, assessment of fees and school credentials. It is web-based application software designed to introduce a conducive and structured information exchange environment which enables educational institutions to supervise student-related activities.

Generally, the Student Enrolment Management System provides a complete student record system. It is designed with diverse application potentials ranging from simple management of student records at school to management of all student-related functions as well as administrative functions of a university or a chain of educational establishments.

Lyceum of Aparri, as a top performing Catholic higher education institution in the northern tip of Cagayan in the Philippines, has a level III accredited status in its curricular programs. It caters to a total of more or less one thousand students. Students in the said institution wait for long hours and stand in line filling out enrolment and assessment forms as Lyceum of Aparri does not have a system that stores its student

records. The manual procedures have been the outcry of students. Moreover, the personnel manning the registrar, cashier and accounting services are dramatically burdened on the situations especially when students flock during scheduled examinations. It is with this foregoing reason that the researcher ventured to embark on this study.

Statement of the Problem

The study sought to develop and evaluate a “Student Management Enrolment System” that automates the manual procedures of registration, enrolment and accounting processes at the Lyceum of Aparri.

Specifically, the study sought answers to the following questions:

1. What is the assessment of the students, faculty and staff on the current system along the following offices in terms of:
 - 1.1 Registrar;
 - 1.1.1 Admission;
 - 1.1.2 Enrolment;
 - 1.1.3 Evaluation;
 - 1.1.4 School Credentials;
 - 1.2 Accounting;
 - 1.2.1 Assessment of fees;
 - 1.3 Cashier;
 - 1.3.1 Payment; and
 - 1.3.2 Statement of Account?
2. What are the problems and issues encountered in the current enrolment system?
3. What system can be developed to address the problems, issues and concerns regarding the current system?
4. What is the extent of efficiency of the proposed Student Enrolment Management System in terms of:
 - 4.1 Functionality;
 - 4.2 Reliability;
 - 4.3 Usability;

4.4 Maintainability; and

4.5 Portability?

METHODOLOGY

Research Design

The researcher employed the Design Science Research (DSR) for Information Systems following the six procedural steps. The Design Science Research creates and evaluates IT artifacts intended to solve identified organizational problems (Peppers, 2007). It involves a rigorous process to design artifacts to solve observed problems, to make research contributions, to evaluate the designs, and to communicate the results to appropriate audiences. The procedures are as follows:

Problem identification and motivation

First, the researcher went through problem identification as she diagnosed the problems and needs in performing the enrolment and accounting processes through series of interviews with concerned participants in the study.

Definition of the objectives for a solution

Second, after knowing the problems, the researcher derived the objectives of the study based on the problems and needs. The development of a fully customized Student Enrolment Management System that will support the enrolment and accounting processes for quality delivery of services was done.

Design and development

Third, the researcher analyzed the requirements based on the identified problems and the derived objectives. She then created the design of the desired interface and system functionality which involves modeling and flowcharting. The design created has features which involved programming or coding and preliminary testing for deployment.

Demonstration

Fourth, the researcher deployed the finished initial version of the system for production in the registrar, accounting and cashier's office. This constituted the end-user training and support, management of change and data conversions. Moreover, it involved experimentation or testing for refinements.

Evaluation

Once the software was developed, the researcher started a thorough testing process. The researcher evaluated the effectiveness of the system by comparing the complete functionality of the system versus the manual pattern.

Communication

Lastly, the researcher made the availability of this paper to diffuse or communicate the problem and its importance, the artifact which refers to the SMES, its utility, novelty, design and its success to the researcher and other audience such as practicing professionals.

Participants of the Study

The participants of the study consisted of college students and faculty who were chosen at random as well as the entire staff of the frontline offices of Lyceum of Aparri. The participants are composed of the following:

Type of Participants	Frequency	Percentage
Students	300	69.28
Faculty	121	27.94
Staff	12	2.77
Total	433	100.00

In order to obtain the desired information on the current transaction scheme and the proposed system, this study involved 433 participants consisting of students and faculty together with the staff of the frontline offices which includes the Registrar, Cashier and Accounting Offices of Lyceum of Aparri. The researcher made use of the Slovin's formula to determine the sample size of the participants.

Instrumentation

The researcher made use of the following methods in gathering the data necessary for analysis.

Interview. The researcher interviewed the staff of the Registrar, Cashier and Accounting Offices in order to understand the processes and transactions done to obtain some information beyond the researcher's knowledge.

Observation. Through this method, the researcher was able to formulate predefined problems, transactions and questions to have an idea on how the system requirements would be developed and enhanced.

Internet Surfing. The researcher utilized the internet for the information that are not available within the framework of the target processes; such as related literature and studies, definition of terms, and other related information necessary for the conduct of the research.

Questionnaires. The researcher floated two sets of questionnaires: the pre-survey and post-survey questionnaires. The pre-survey questionnaire was used to assess and determine the problems encountered on the existing system. Then, the post-survey questionnaire was used to determine the degree of effectiveness of the proposed system in terms of software features/capabilities.

Data Gathering Procedure

The following steps were undertaken in order to pursue the objectives of this study:

The researcher sought the approval of Rev. Fr. Joel M. Reyes, the Executive Vice President of Lyceum of Aparri before the conduct of the study.

After which, the researcher immediately interviewed the staff of the frontline offices as well as some of the students and faculty of Lyceum of Aparri as regards the existing information system.

Through a survey questionnaire, the researcher was able to determine the problems encountered regarding the existing information system. As the system would be in progress, the researcher interviewed the Cashier, Registrar and Accounting staff for the enhancement of the said proposed system.

Data Analysis

The data obtained by the researcher were tallied and organized for their analysis and interpretation.

Frequency and Percentage Count. This tool was used to assess the existing processes & transactions and also to determine the problems encountered regarding the existing system.

Weighted Mean. This was utilized to determine the degree of effectiveness of the proposed student enrolment system.

Likert Scale. This scale was used to get the point scales and descriptive equivalent of the participants' response on the existing system as well as the proposed system by means of the pre-survey and post-survey questionnaires.

RESULTS AND DISCUSSION

On the basis of the analysis of the data gathered, the following findings are obtained:

The participants when grouped according to students, faculty, and staff on the transactions and processes rated the existing enrolment system of Lyceum of Aparri as "Moderately Efficient".

The participants regardless of their status assessed the current transactions and processes on the existing enrolment system as “Moderately Efficient”.

The number one problem or concern encountered by all the participants is “It takes time for students to fill up enrolment forms”.

Among the suggested intervention measures provided by the participants, the item “The school should develop and implement an enrolment system” has the highest frequency or rank.

The result of the evaluation by the participants for the proposed system is “Very Highly Efficient”.

CONCLUSION

From the above findings, the researcher concludes that the proposed Student Enrollment Management System of Lyceum of Aparri is efficient. The proposed system has complied with the standard features or capabilities compared to the existing system because it is automated and it contains the desired features/capabilities to facilitate transactions and enrollment process of the students. Compared to the existing system, the proposed system is more capable in facilitating various transactions and processes of enrollment.

RECOMMENDATIONS

From the obtained findings and conclusion, the researcher recommends the following:

Lyceum of Aparri should adopt and implement the proposed Student Enrolment Management System to keep track and easily monitor the students’ records.

The faculty and staff who will be using the proposed system should be given an orientation of the functions and capabilities of the new system before its formal use.

The assigned staff to manage the system should be computer literate.

Lyceum of Aparri administrators should implement the Student Enrolment Management System to replace the existing system.

The Lyceum of Aparri administrators should provide a stand-alone server.

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