

Usability of Pangasinan State University Enrolment System

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Abstract – *This research evaluated the extent of Usability of PSU Enrolment System. The evaluation of the respondents in terms of effectiveness, efficiency, and satisfaction has been analyzed by the researchers. It also intends to answer the significant difference on the extents of Usability of PSU Enrolment System as perceived by students and employees. For the purpose of the study, one hundred (100) respondents were asked to answer the survey question for better result. Fifty (50) students and fifty (50) employees who are aware and using the enrolment system. The researchers used the descriptive survey method of research using questionnaire as the main tool of gathering data. Average Weighted Mean was used in determining statistical result to clearly interpret necessary details from the evaluation made by the respondents. Further, t-test is also used to determine the significant difference on the extents of PSU Enrolment System as perceived by students and employees. Based from the evaluation of PSU students and employees regarding the Extent of Usability of PSU Enrolment System, the findings for the effectiveness, efficiency and satisfaction is Very Good. Average Weighted Mean (AWM) is 3.91 for effectiveness, 3.73 for efficiency, and 3.79 for satisfaction. For the significant difference on the extents of Usability of PSU Enrolment System, using t-test (Independent) at 0.05 level of significance the null hypotheses is accepted which means that the difference between the extents of effectiveness, efficiency, and satisfaction as perceived by students and employees is not significant.*

Keywords – *Effectiveness, Efficiency, Enrolment System, Satisfaction, Usability*

INTRODUCTION

Background of the Study

Computerization is a control system that manages processes in industrial workplace. It reduced human errors and processing time, thus it can boost productivity and resulted into high quality of product produce. In Information System, computerization is concerned about interrelating different but interdependent transactions. This can result in a system with well-integrated processes that can perform much faster and more accurate than a manual system.

The introduction of computer technology has opened a new chapter in technological advances which makes computers become part of everyday life. Computers make all lives easier so that all can live good lives. Computers are everywhere at work, at school, and at home. The educational system has taken advantage of the technology in teaching and learning, processing data, record keeping, and in their enrollment system.

Enrolment System is very essential in a school. In the case of Pangasinan State University, it is composed of a manual system. Registrar's office used manual system in recording and retrieving student's information. On the other hand, the Registrar used manual system as a way of recording and retrieving student information.

Enrolment System is the process of entering and verifying data of student to register on a particular school. Different interrelated processes build up enrolment procedures. ES are used particularly in recording and retrieving student's information. It is a good example of a computer generated process that can lessen the workload and provides accurate information needed of the school. As a result, it will benefit not only the student but the administration as a whole.

Conceptual Framework

The conceptual framework of the study is reflected in the paradigm as shown in Figure 1.

The inputs of this research are the extent Usability of PSU Enrolment System in terms of effectiveness, efficiency and satisfaction, and the significant difference on the extents of Usability of the PSU Enrolment System as perceived by students and employees.

The process to be done is through descriptive-survey research, gathering of information, analysis of information, float the questionnaire and evaluation of

data gathered. Since the study focuses on the Usability of PSU Enrolment System, the researchers will make a survey using questionnaire. Through this method, the researchers will determine and analyze what are the necessary improvements needed in the development of the enrolment system.

The output of this research is the Usability of PSU Enrolment System.

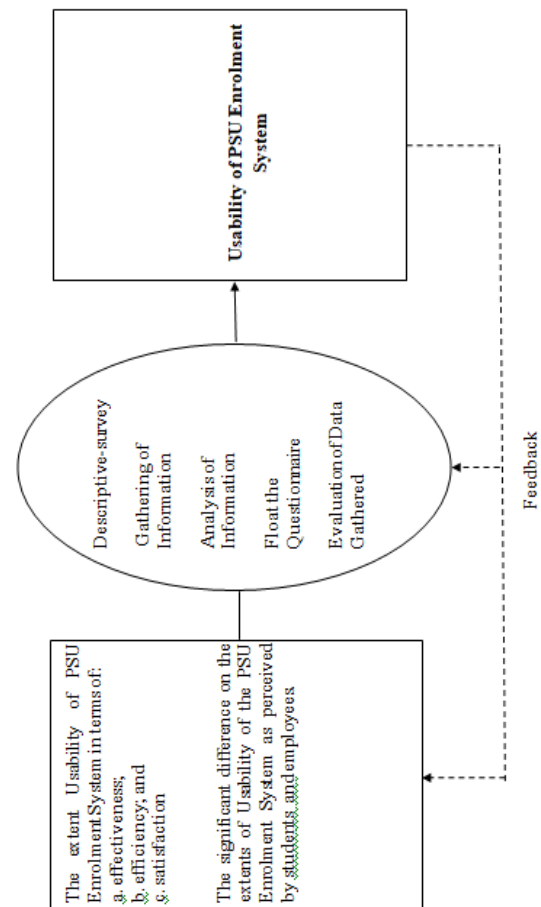


Figure 1
Research Paradigm

OBJECTIVES OF THE STUDY

The main goal of this study was to measure the Usability of PSU Enrolment System. The objectives of the study were discussed in the following statements:

1. To determine the extent of Usability of PSU Enrolment System in terms of:

- a. Effectiveness;
- b. Efficiency; and
- c. Satisfaction.

2. To determine the significant difference on the extents of Usability of PSU Enrolment System as perceived by students and employees.

Hypotheses

There is no significant difference on the extents of Usability of PSU Enrolment System as perceived by students and employees.

MATERIALS AND METHODS

Research Design and Methodology

The researchers used the descriptive-survey. This method was deemed appropriate, since the study will only describe the Usability of PSU Enrolment System by conducting a survey from its users – the students and employees of the school.

SOURCES OF DATA

There are one hundred (100) respondents of this study, fifty (50) students and fifty (50) employees regarding the study Usability of PSU Enrolment System. The researchers used a statistical technique which is the stratified sampling.

INSTRUMENTATION AND DATA COLLECTION

The questionnaire was distributed by the researchers among the one hundred (100) respondents of Pangasinan State University to evaluate the Usability of PSU Enrolment System. The distribution of questionnaires was done personally by the researchers.

The contents of the questionnaire will be the measures of usability: effectiveness, efficiency, and satisfaction, and the significant difference on the extents of Usability of PSU Enrolment System as perceived by students and employees.

The following scale was used to evaluate the Usability of PSU Enrolment System.

Arbitrary Value	Interpretation
5	Excellent (E)
4	Very Good (VG)
3	Good (G)
2	Fair (F)
1	Poor (P)

TOOLS FOR DATA ANALYSIS

The researchers used statistical tool in analyzing the data on the Usability of PSU Enrolment System.

For statement of the problem number 1 (one) and 2 (two), weighted mean is being used to analyze the gathered data. T-test is also used to determine the significant difference on the extents of Usability of PSU Enrolment System as perceived by students and employees.

The following likert scale was used to interpret the computed weighted mean.

Numerical Equivalent	Statistical Range	Interpretation
5	4.21-5.00	Excellent (E)
4	3.41-4.20	Very Good (VG)
3	2.61-3.40	Good (G)
2	1.81-2.60	Fair (F)
1	1.00-1.80	Poor (P)

RESULTS AND DISCUSSION

1. Extent of Usability of PSU Enrolment System

a. Effectiveness

Table 1, shows the survey results conducted by the researchers, which was based on the extent of Usability of PSU Enrolment System in terms of Effectiveness. The computed total Average Weighted Mean (AWM) was 3.91 that implies “Very Good”. This reveals that the respondent’s evaluation scores well in terms of its Effectivity.

Table 1

Extent of Usability of PSU Enrolment System in terms of EFFECTIVENESS

(n=100)

Usability Variables	Students		Employees	
	Weighted Mean	Description	Weighted Mean	Description
1. Accuracy of Information	1.89	Very Good	2.08	Very Good
2. Security	1.87	Very Good	2.09	Very Good
3. Responsiveness	1.98	Very Good	1.87	Very Good
4. Understandability	1.90	Very Good	2.03	Very Good
5. Interoperability	1.98	Very Good	1.94	Very Good
6. Suitability	1.89	Very Good	1.94	Very Good
Over-All Average Weighted Mean	3.84	Very Good	3.98	Very Good

Figure 2 displays the graph of extent of Usability of PSU Enrolment System in terms of Effectiveness. Question number one (1) has the value of 3.97 that implies “Very Good” according to the computed weighted mean. It represents the highest percentage of evaluation of the respondents among the six (6) extent of Effectiveness. Question number six (6) has the value of 3.83 that implies “Very Good” according to the computed weighted mean. It represents the lowest percentage of evaluation of the respondents.

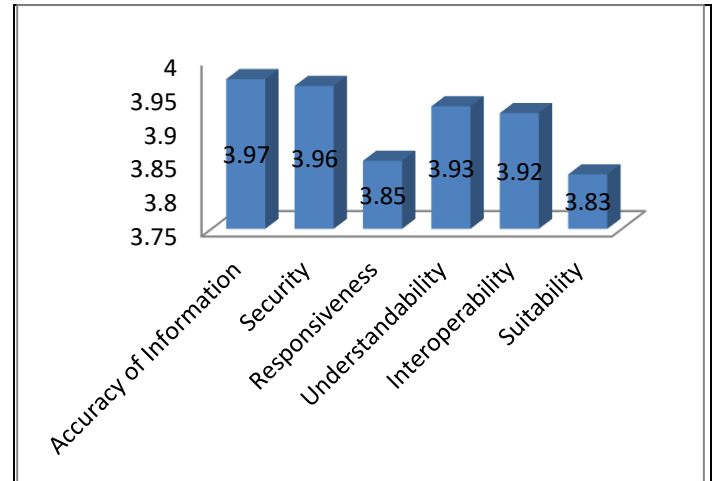


Figure 2. Extent of PSU Enrolment System in terms of Effectiveness

b. Efficiency

Table 2, shows the survey results conducted by the researchers, which was based on the extent of Usability of PSU Enrolment System in terms of Efficiency. The computed total Average Weighted Mean (AWM) on the extent of Efficiency was 3.73 that implies “Very Good”. This reveals that the respondent’s evaluation scores well in terms of its Efficiency.

Table 2

Extent of Usability of PSU Enrolment System in terms of EFFICIENCY

(n=100)

Usability Variables	Students		Employees	
	Weighted Mean	Description	Weighted Mean	Description
1. Time in completing task	1.75	Very Good	1.83	Very Good
2. Accessibility	1.86	Very Good	1.89	Very Good
3. Operability	1.79	Very Good	1.93	Very Good
4. Behavior	1.93	Very Good	1.88	Very Good

5. Utilization	1.87	Very Good	1.83	Very Good
6. Productivity	1.93	Very Good	1.89	Very Good
Over-All Average Weighted Mean	3.71	Very Good	3.75	Very Good

Figure 3 displays the graph of extent of Usability of PSU Enrolment System in terms of Efficiency. Question number six (6) has the value of 3.82 that implies “Very Good” according to the computed weighted mean. It represents the highest percentage of evaluation of the respondents among the six (6) extent of Efficiency. Question number one (1) has the value of 3.56 that implies “Very Good” according to the computed weighted mean. It represents the lowest percentage of evaluation of the respondents.

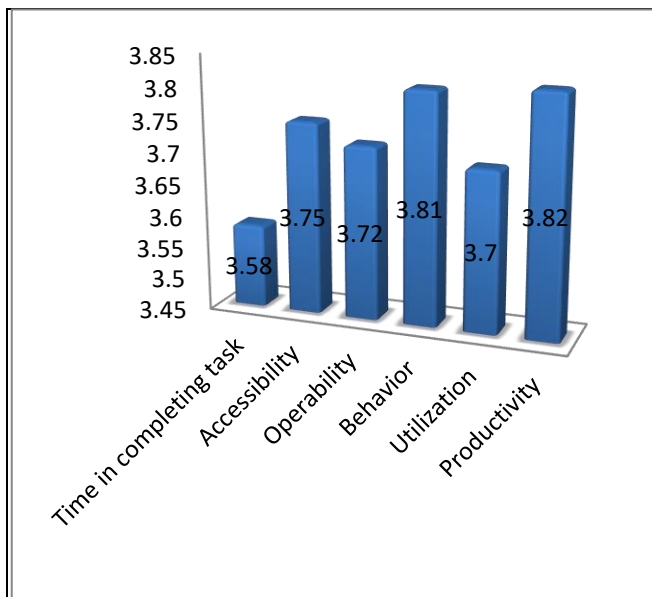


Figure 3. Extent of Usability of PSU Enrolment System in terms of Efficiency

c. Satisfaction

Table 3, shows the survey results conducted by the researchers, which was based on the extent of Usability of PSU Enrolment System in terms of

Satisfaction. The computed total Average Weighted Mean (AWM) on the extent of Satisfaction was 3.79 that implies “Very Good”. This reveals that the respondent’s evaluation scores well in terms of its Satisfaction.

Table 3

*Extent of Usability of PSU Enrolment System in terms of SATISFACTION
(n=100)*

Usability Variables	Students		Employees	
	Weighted Mean	Description	Weighted Mean	Description
1. Availability	1.89	Very Good	1.88	Very Good
2. Acceptability	1.90	Very Good	1.94	Very Good
3. Recoverability	1.88	Very Good	1.90	Very Good
4. Maturity	1.89	Very Good	1.87	Very Good
5. Tolerance	1.88	Very Good	1.86	Very Good
Over-All Average Weighted Mean	3.78	Very Good	3.81	Very Good

Figure 4 displays the graph of extent of Usability of PSU Enrolment System in terms of Satisfaction. Question number two (2) has the value of 3.84 that implies “Very Good” according to the computed weighted mean. It represents the highest percentage of evaluation of the respondents among the five (5) extent of Satisfaction. Question number four (4) has the value of 3.76 that implies “Very Good” according to the computed weighted mean. It represents the lowest percentage of evaluation of the respondents.

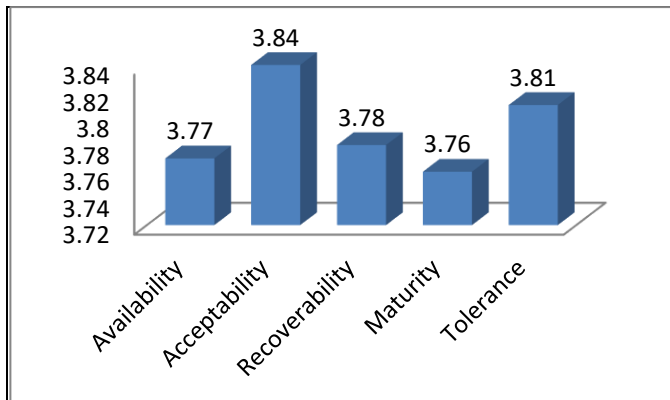


Figure 4. Extent of Usability of PSU Enrolment System in terms of Satisfaction

Significant difference on the extents of Usability of PSU Enrolment System as perceived by students and employees

Table 4
Effectiveness of PSU Enrolment System as perceived by students and employees

	Me an	Standa rd Deviati on	Mean Differe nce	T- Value	Decisi on
Student s	3.8 4	1.91	-0.14	- 0.0527 84	NS
Employ ees	3.9 8	1.99			

Table 4 shows that in terms of Effectiveness, between the students and employees, there is a difference of -0.14, but statistically analysis shows that using t-test (Independent) at 0.05 level of significance the null hypotheses is accepted which means that the difference between the extent of effectiveness as perceived by students and employees is not significant.

Table 5
Efficiency of PSU Enrolment System as perceived by students and employees

	Mea n	Stand ard Deviat ion	Mean Differ ence	T- Value	Decis ion
Student s	3.71	1.85	-0.04	- 0.283 663	NS
Emplo yees	3.75	1.87			

Table 5 shows that in terms of Efficiency, between the students and employees, there is a difference of -0.04, but statistically analysis shows that using t-test (Independent) at 0.05 level of significance the null hypotheses is accepted which means that the difference between the extent of efficiency as perceived by students and employees is not significant.

Table 6
Satisfaction of PSU Enrolment System as perceived by students and employees

	Mea n	Standa rd Deviati on	Mean Differ ence	T- Value	Decisi on
Student s	3.78	1.88	-0.03	0.1453 36	NS
Employ ees	3.81	1.90			

Table 6 shows that in terms of Satisfaction, between the students and employees, there is a difference of -0.03, but statistically analysis shows that using t-test (Independent) at 0.05 level of significance the null hypotheses is accepted which means that the difference between the extent of satisfaction as perceived by students and employees is not significant.

CONCLUSION AND RECOMMENDATION

Conclusion

The respondents generally imply “Very Good” on the extent of Usability of PSU Enrolment System in terms of Effectiveness, Efficiency, and Satisfaction. In terms of effectiveness, the PSU Enrolment System provides accurate information, security, responsiveness, understandability, interoperability, and suitability. In terms of efficiency, the respondents evaluation in time spent in completing task is not too long, the website is accessible, operable; behave when it comes in clicking links, utilization of the time, and productivity. The enrolment system also provides availability, acceptability, recoverability, maturity, and tolerance in terms of satisfaction as evaluated by the respondents. There is no significant difference on the extent of effectiveness, efficiency, and satisfaction as perceived by students and employees.

Recommendations

Since, majority of the respondents evaluated the usability of PSU Enrolment System “Very Good”, the institution should maintain the performance of the system by making an evaluation every end school year to presently update what are the necessary improvement will be more noticeably take an attention. The same study may be conducted with larger sample, different groups of users to enhance more the usability of PSU Enrolment System, and results should be used in updating the system. Also, the administrator of the enrolment system should provide an online evaluation for those who used the system. Some suggestions may also require determining the perception and some comments of the users.

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