Developing Progress Reports of Students Learning through the Flexspace Platform of General Education, Suan Sunandha Rajabhat University

Rattanakul Kongpha[1], Napasri Suwanajote[2]

[1,2,] Suan Sunandha Rajabhat University, Thailand

Email: rattanakul.ko@ssru.ac.th[1]; napasri.su@ssru.ac.th[2]

Abstract

The study on "The Development of Progress Reports for Learners Using FlexSpace at the Faculty of General Education and Electronic Learning Innovation, Suan Sunandha Rajabhat University" aims to design progress reports for learners using the FlexSpace system and to evaluate the satisfaction of users with these progress reports.

The study population consists of 30 faculty members and teaching assistants in general education courses at Suan Sunandha Rajabhat University, selected through purposive sampling. Data were collected using a questionnaire, and the statistics used for data analysis included percentage, mean, and standard deviation. In this study, the researcher gathered data using a satisfaction questionnaire.

The results of the study revealed that users of the learner progress report were highly satisfied, with an overall satisfaction score of 4.51, equivalent to 90.18%. The findings are as follows: (1) Satisfaction with the report design had a satisfaction level of 4.67, equivalent to 93.33%, indicating the highest level of satisfaction. (2) Satisfaction with the report's presentation had a satisfaction level of 4.61, equivalent to 92.17%, indicating the highest level of satisfaction. (3) Satisfaction with the usability of the report had a satisfaction level of 4.52, equivalent to 90.40%, indicating the highest level of satisfaction. (4) Satisfaction with the report's effectiveness had a satisfaction level of 4.24, equivalent to 84.83%, indicating a high level of satisfaction.

The results of this study indicate that designing reports with visual data presentations, including bar charts, which are the most commonly used format, followed by pie charts, helps users understand the reports more effectively. These visual data presentations assist in transforming abstract information into concrete, visual formats.

Keywords: Data Visualization, Looker Studio

1. Introduction

The Office of General Education and Electronic Learning Innovation is responsible for providing general education courses to students at Suan Sunandha Rajabhat University. The Office is dedicated to developing an efficient system for monitoring and evaluating student learning outcomes, emphasizing learning management that aligns with the digital age through the FlexSpace platform. This platform serves as a valuable tool for enhancing diverse learning experiences and presenting information effectively.

Studying student progress through the FlexSpace platform and integrating electronic learning innovations is critically important. It allows for improvements in teaching and learning efficiency. By understanding the progress of students utilizing this technology, more suitable

and effective teaching methods can be developed. Moreover, it provides insights into the impact of technology on student learning and serves as a foundation for developing educational innovations that enhance learning outcomes.

Given the large-scale management of teaching and the significant number of students in each course, the Office has introduced progress reports to provide faculty members with information on student access to the system and their participation in activities. These reports are instrumental in tracking students' learning processes and activity engagement during the course.

The Office has implemented online learning through the FlexSpace platform. Therefore, this study focuses on the development of progress reports for students learning through the FlexSpace platform at the Office of General Education and Electronic Learning Innovation, Suan Sunandha Rajabhat University. It also aims to evaluate user satisfaction with the progress reports provided through this platform.

1.1 Research Objective

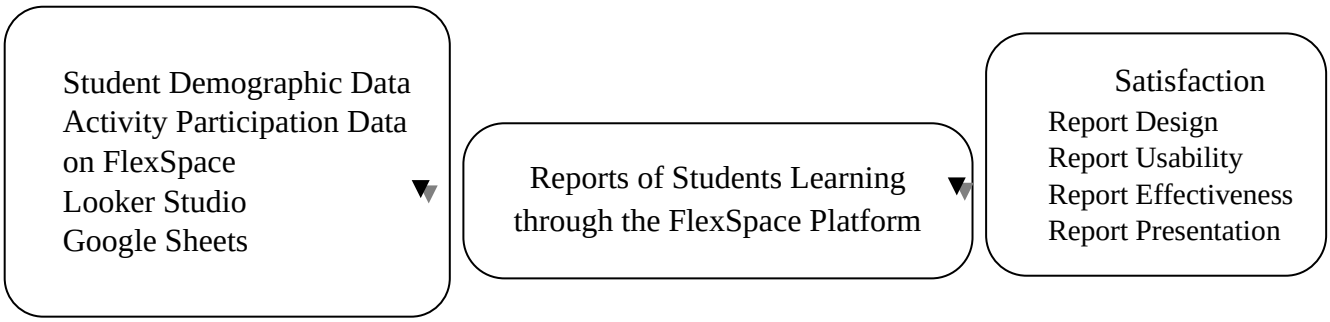
This research study was aimed to:

1) To design progress reports for students learning through the FlexSpace platform.

2) To evaluate user satisfaction with the progress reports for students learning through the FlexSpace platform.

2. Conceptual Framework

Figure 1. Conceptual Framework of the Study



3. Methodology

Population and Sample Group

1) Population: The population consists of instructors and teaching assistants for general education courses at Suan Sunandha Rajabhat University.

2) Sample Group: The sample group includes 30 instructors and teaching assistants for general education courses at Suan Sunandha Rajabhat University who conducted teaching during the summer semester of the 2023 academic year, selected using purposive sampling.

Research Instruments

The research instruments used for the study on the development of progress reports for students learning through the FlexSpace platform at the Office of General Education and Electronic Learning Innovation, Suan Sunandha Rajabhat University, include:

1) Looker Studio, Google Sheets, and activity reports generated from the FlexSpace platform.

2) Progress reports for students learning through the FlexSpace platform.

3) A satisfaction assessment form for the use of progress reports for students learning through the FlexSpace platform.

Research Procedures

1) Development of progress reports for students learning through the FlexSpace platform.

2) Evaluation of user satisfaction with the progress reports for students learning through the FlexSpace platform.

Creation of research tools. data analysis In this research The researcher used the following criteria for data analysis:

1) Qualitative data analysis involves analyzing survey data using content analysis to derive percentages and averages.

2) Quantitative data analysis Participation assessment form By analyzing the average values as follows:

Average rating 1.00 - 1.49 means very low satisfaction level.
Average rating 1.50 - 2.49 means low satisfaction level.
Average rating 3.00 - 3.49 means moderate satisfaction level.
Average rating 3.50 - 4.49 means high satisfaction level.
Average rating 4.50 - 5.00 means very high satisfaction level.

3) Data collection Statistics used in research

3.1 Analysis using questionnaires to survey satisfaction with learning through interactive media.

3.2 Analysis of participation in strategic planning using the arithmetic mean.

3.3 Percentage Value Finding percentage value is calculated from proportional value. By comparing with a base value of 100

4. Results

The main objective of this research is to understand the satisfaction patterns of online learning among students. The assessment of satisfaction covers four aspects: 1. Report Design, 2. Report Usability, 3. Report Effectiveness, and 4. Report Presentation. The survey was conducted with 30 respondents, and the results are presented in the table below.

Table 1. Summary of Satisfaction Assessment on the Use of Progress Reports

Aspect of Satisfaction	Mean ($\bar{x}$)	S.D.	Percentage	Level of Satisfaction
1. Report Presentation	4.61	0.56	92.17	Highest
2. Report Design	4.67	0.59	93.33	Highest
3. Report Effectiveness	4.24	0.72	84.83	High
4. Satisfaction with Report Usability	4.52	0.58	90.40	Highest
Overall Average	**4.51**	**0.61**	**90.18**	**Highest**

From Table 1, which presents the evaluation of user satisfaction with the progress reports for students learning through the FlexSpace platform, it was found that the overall satisfaction level was rated at the highest level ($\bar{x}$ = 4.51, S.D. = 0.61), equivalent to 90.18%. When examining individual aspects, the findings are as follows:

Report Design Satisfaction: Rated at the highest level ($\underline{x}$ = 4.67, S.D. = 0.59).

Report Presentation Satisfaction: Rated at the highest level ($\underline{x}$ = 4.61, S.D. = 0.56).

Report Usability Satisfaction: Rated at the highest level ($\underline{x}$ = 4.52, S.D. = 0.58).

Report Effectiveness Satisfaction: Rated at the highest level ($\underline{x}$ = 4.24, S.D. = 0.72).

The evaluation results indicate that the use of progress reports for students learning through the FlexSpace platform yielded highly satisfactory outcomes, with users expressing the highest level of satisfaction.

5. Conclusion

Conclusion

The study on user satisfaction with the progress reports for students learning through the FlexSpace platform across four aspects revealed an overall satisfaction level at the highest level, with a mean score of 4.51, equivalent to 90.18%.

Report Design Satisfaction had a mean score of 4.67, equivalent to 93.33%, indicating the highest level of satisfaction.

Report Presentation Satisfaction had a mean score of 4.61, equivalent to 92.17%, also indicating the highest level of satisfaction.

Report Usability Satisfaction had a mean score of 4.52, equivalent to 90.40%, at the highest level of satisfaction.

Report Effectiveness Satisfaction had a mean score of 4.24, equivalent to 84.83%, also indicating a high level of satisfaction.

Overall, the findings demonstrate that user satisfaction with the progress reports for students learning through the FlexSpace platform was at the highest level across all aspects.

Discussion

The evaluation of user satisfaction across the four aspects revealed that satisfaction was at the highest level in all categories. Specifically:

Report Design Satisfaction was rated at the highest level.

Report Presentation Satisfaction was also at the highest level.

Report Usability Satisfaction achieved the highest level of satisfaction.

Report Effectiveness Satisfaction was rated at a high level of satisfaction in order of ranking.

The findings indicate that users were highly satisfied with the overall functionality of the reports across all aspects. Among the four dimensions, Report Design Satisfaction received the highest satisfaction score, followed by Report Presentation Satisfaction, Report Usability Satisfaction, and Report Effectiveness Satisfaction, respectively.

This research is consistent with the study on data visualization by Tatsanan Chutosri (2021), which stated that data visualization is a graphical representation of information. It enables the presentation of large and complex datasets in a simplified manner, making them easier to understand. Data visualization helps in predicting future trends and enhances perception. Most data visualizations are designed in the form of bar charts, line graphs, diagrams, scatter plots,

interactive graphs, maps, networks, and other formats. The benefits of data visualization include making information more engaging, easier to understand, visually clear, easy to remember, and adding value to the data. This is especially important in the digital era with an overwhelming amount of data. The academic article discussed the meaning of data visualization, the relationship between datasets, types of charts used in data visualization, and the process of visualizing data. It aims to improve understanding of data visualization concepts and techniques.

The researcher designed the learning progress report for learners using the FlexSpace system, focusing primarily on presenting information through bar charts and pie charts. These visualizations were complemented by explanatory text and numerical data to enhance understanding. This approach aligns with the study by Kamonchanok et al. (1993), which explored the application of data visualization in Facebook fan pages in Thailand. Their findings revealed that the most frequently used visualization format was bar charts (31.5%), followed by pie charts (18.5%) and line charts (12.4%).

As a result, users expressed the highest level of satisfaction with the learning progress report provided through the FlexSpace system.

Recommendations

1) Recommendations for this research:

1.1 This study should consider additional factors that may influence satisfaction with the use of interactive media, such as user characteristics, objectives for using the media, and the context in which the media is used.

2) Recommendations for future research:

2.1 Future studies should explore other factors that may impact satisfaction with the use of interactive media, such as user characteristics, objectives for using the media, and contextual factors.

2.2 A wider variety of satisfaction measurement tools should be employed to provide a more comprehensive and in-depth understanding of user satisfaction.

2.3 Data collection should involve a more diverse sample group to better reflect the opinions of various users.

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