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## Template for Article Submission in JRSSEM

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**Keywords:**

Keywords 1;  
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**Abstract**

Universities, especially private universities, always need to improve themselves to be relevant to stay in business and one of the main points to improve is to provide the quality of their services. Most universities only implement basic surveys to measure their services, the most recent method developed to measure the service quality in the university is Higher Education Performance (HEdPERF) and Higher Education Service Quality (HESQUAL). To date, no service quality measurement method has systematically incorporated student involvement from the initial stages through to the final phases of the service evaluation process. By applying a user-centric Service Design approach, student involvement can be systematically embedded into the university service quality measurement process and enables the development of more user-centered surveys, resulting in findings that are potentially more effective and precisely targeted. This study utilizes Service Safari, User Persona, User Journey Mapping, and User Pain-points components from the Service Design method as inputs for the HEdPERF and HESQUAL measurement frameworks. Both surveys were administered at a private university, and their results were tested for validity and reliability. The results of the study show that the integration of Service Design components into HEdPERF produces a more valid instrument and the integration these two methods complement each other as seen from the User Pain-points with a high emotional level in User Journey Mapping in line with the survey items that have the highest service gap value. The survey results are also more specific and detailed because they are developed directly from User Pain-points, these results could greatly assist universities in creating follow-up plans with more impactful and effective service improvements.

**Background:** ...

**Objective:** ...

**Methods:** ...

**Results:** ...

**Conclusion:** ...

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## INTRODUCTION

Currently, every line of business faces challenges in facing the rapidly evolving digital and global world, including higher education. The challenges in higher education are a complex and multifaceted process that involves many stakeholders and impacts all educational institutions [1]. Private higher education institutions are required to continuously improve the quality of their services because in an increasingly competitive higher education landscape, student satisfaction and loyalty are critical components for institutional sustainability and long-term success [2]. Achieving satisfactory quality will impact achieving

the vision and mission of educational institutions, and establish the brand image of the institution in the community/public that proves the high level of public trust in certain educational institutions [3].

The higher education landscape on a global scale is undergoing a profound transformation, marked by increased competition and a decisive shift towards a market-oriented operational model [4][5]. Essentially, higher education can be categorized as an educational service, where the current market orientation leads to services that apply customer-centric or user-centric principles. This principle is the basis of the Service Design method, where Service Design emphasizes a user-centered and collaborative approach [6]. Therefore, an integrative approach is needed that combines quantitative evaluation of service quality with a participatory approach based on Service Design to formulate a more appropriate service improvement strategy model for Private Universities, especially for Private Universities that have limited resources or limited financial conditions so that a service improvement strategy can be produced that is more appropriate for students as direct service users.

From research [7] it is shown that student satisfaction is a crucial indicator in evaluating the quality of higher education. Efforts to improve service quality at private universities are not merely operational needs but also a crucial business strategy to ensure the campus remains relevant, adaptive, and sustainable in the long term. Therefore, measuring service quality at private universities is the first step to improving service quality. Currently, several popular methods for measuring service quality have been developed for the higher education sector, but the most frequently researched method is Higher Education Performance (HEdPERF) and Higher Education Service Quality (HESQUAL). The HEdPERF model consists of six dimensions, namely academic, non-academic, reputation, access, program issues, and understanding [8]. Since its publication as a service quality assessment model, the HEdPERF model has been used and validated by many researchers [9][10][11], including in Indonesia, research conducted by using the Higher Education Performance (HEdPERF) method in measuring the level of student satisfaction with service quality in Higher Education [12][13][14]. Likewise, research related to HESQUAL has been completed in Indonesia in a study conducted by using 4 research variables, namely HESQUAL, Satisfaction, Loyalty, and University Image[15].

Although many studies have stated that HEdPERF and HESQUAL methods are quite valid and reliable as a service measurement method, with the current trend showing that service user involvement is something that must be considered, the Service Design method plays a key role in driving service innovation [16] and the application of this method has proven beneficial for the transformation of services towards human-centricity through its participatory approach. Traditionally, the focus of Service Design in service research has been on the service encounter [17] or on the so-called "moments of truth" where customers interact with companies during the service process [18]. By integrating student-centric aspects through the Service Design method into the service measurement method with the HEdPERF method in higher education, it is hoped that the results of service measurement will not only meet expectations from the perspective of higher education management but can also meet student expectations.

## **RESEARCH METHOD**

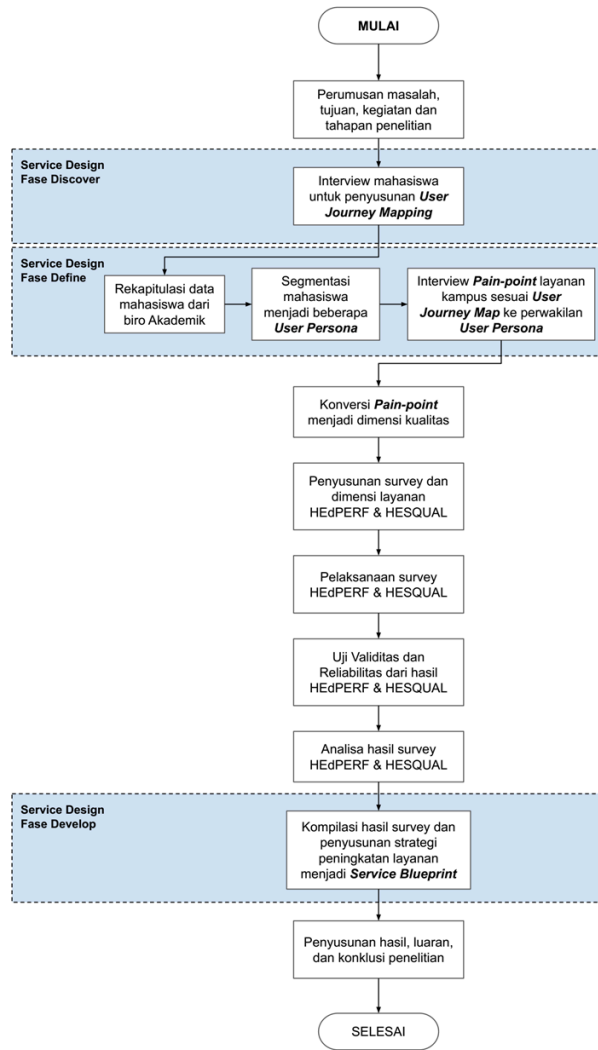
This study adopted a mixed-method research design that integrates qualitative Service Design exploration with quantitative service quality measurement. The qualitative phase was used to capture students' lived experiences and service-related pain points, while the quantitative phase assessed perceived service quality using adapted HEdPERF and HESQUAL instruments. The research was conducted at a private higher education institution, hereafter referred to as University XYZ, located in South Tangerang. The data collection was carried out through the following methods:

- **Service Design Exploration**

Qualitative data were obtained using Service Design tools aligned with the Double Diamond framework, including: Service safari, User Persona, and User journey mapping. These methods were used to identify critical service touchpoints and recurring student pain points.

- **Survey Instrument Development & Distribution**

Identified pain points were translated into survey items and mapped onto the dimensions of HEdPERF and HESQUAL. The survey used a Likert scale of [e.g., 1–7], representing levels of agreement with service performance statements. Students were given access to fill the surveys using an online platform.



**Fig. 1:** Research activity flow

The HEdPERF and HESQUAL surveys were conducted at the same time with the same respondents. The number of respondents in this study was determined using the Slovin Formula, as the Slovin Formula is one of the most frequently used methods in determining sample size [19]. When this research was conducted, the number of active students at XYZ University was 710 students. Using the Slovin Formula with a margin of error of 10%, the minimum number of respondents for this survey was 88 students as can be seen at equation (1).

$$n = \frac{710}{1 + 710(0,10)^2}$$

$$n = \frac{710}{1 + 710(0,01)}$$

$$n = 87,65$$

(1)

The survey result data were analyzed using descriptive statistics to evaluate perceived service performance across dimensions. Validity and reliability of the instruments were tested before the gap analysis process to prove that the instruments were still valid even after

modification using the Service Design as the input of the survey. The gap analysis is also carried out by including the weighting of Standard Deviation values of each item survey, standard deviation-based scoring were applied to assess response consistency and help the university to create prioritization on service improvement items.

## RESULTS AND DISCUSSION

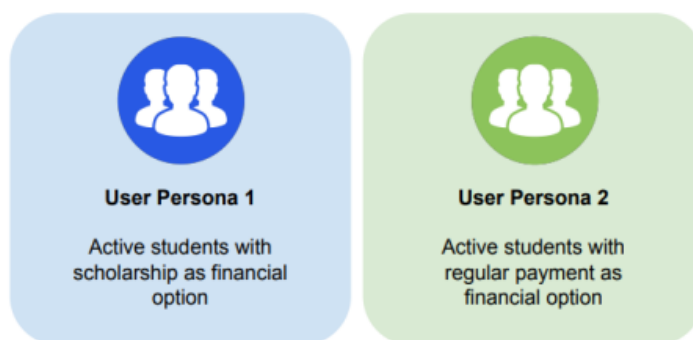
### Service Design Exploration

From the exploration of the Service Design method, it was decided that this study would use Service Safari, User Personas, User Journey Mapping, and User Pain-points. Service Safari in this study involved student representatives from each level in all departments, the safaris conducted throughout the university to identify various services at the university and then assessed their condition using the Condition Assessment Framework which is commonly used to assess User Feedback on the condition of a facility [20].

**Table 1.** Service Safari Result

Service Name	Category	Purpose	Usage Frequency	Condition
University Web	Non-Physical	Information platform	Daily	Poor
Student LMS - Administrative	Non-Physical	Filling Study Plan document, checking Study Result document and Academic Transcript	Semiannually	Average
Student LMS - Learning	Non-Physical	Online learning streaming, presence record and assignment submission	Daily	Average
Web Payment Platform	Non-Physical	Tuition fee payment platform	Monthly	Average
Study Plan Consultation	Non-Physical	Consulting semester study plan	Semiannually	Average
Student Career Consultation	Non-Physical	Consulting student career plan	Annually	Average
Classroom	Physical	Attending class and meetings	Daily	Poor
Lectures	Non-Physical	Student learning	Daily	Average
Semester Test	Non-Physical	Student periodical test	Monthly	Average
Computer Laboratory	Physical	Learning computer skill	Daily	Average
Language Center	Physical	Learning foreign language	Annually	Average
Business Incubator Laboratory	Physical	Learning business knowledge	Annually	Poor
Department Laboratory	Physical	Practical activity	Monthly	Average
Library	Physical	Literature and reference center	Monthly	Average
Training & Certification Program	Non-Physical	Learning soft-skill	Annually	Average
Student Housing Program	Non-Physical	Student house rent	Annually	Poor
University Internet Connection	Non-Physical	Student internet connection	Semiannually	Good
Student Organization Room	Physical	Space for student organizations	Daily	Average
Student Organization Program	Non-Physical	Support for organization activity	Monthly	Average
University Common Area	Physical	Public space for students	Daily	Poor
University Canteen	Physical	Canteen for students	Daily	Average
Graduation Ceremony	Non-Physical	Student graduation ceremony	Annually	Good

Simultaneously with the Service Safari, University XYZ students were segmented to create User Personas. In this study, segmentation was based on students' financial condition, as indicated by their use of a tuition financing scheme. This study resulted in two User Personas: students with a regular tuition financing scheme and students with a scholarship financing scheme.



**Fig. 2:** User Personas of University XYZ

From the Service Safari results, a User Journey Map was developed containing various Touchpoints from various phases of the study. Student representatives from each User Persona were then interviewed to describe their experiences and emotional levels at each Touchpoint in the User Journey Mapping, which were recorded as User Pain Points.

Example 1	Example 2	Example 3
A	B	C
D	E	F

## CONCLUSION

This section should emphasize the major interpretations and conclusions of the paper as well as their significance. The conclusion must correspond to the objective of the research.

## ACKNOWLEDGEMENTS

If any, an acknowledgment may be made here. This section displays the author's appreciation to sponsors, fund donors, resource persons, or parties who have an important role in conducting research.

## STATEMENT OF CONTRIBUTION BY THE AUTHOR

If applicable, the Author's Contribution Statement.

## REFERENCE

Reference is listed and numbered in alphabetical order. References must be up to date. It is recommended for example total reference is a minimum of 15 and up to date references (10 years old) is 10.

Specifically, be guided by the following example:

1. Brunner, C. R. (1996). *Medical waste disposal*, Incinerator Consultants Incorporated, Reston, Virginia, U. S. A. [Books]
2. Chester, A. W., and Chu, Y. F (1982). U. S. Pat. 4 350 835. [Patents]
3. Ergun, S. (1952). "Fluid flow through packed columns," *Chem. Eng. Prog.*, 48, 89-94. [Journal article]

4. Goodman, P W. (1984). *Abstracts of papers*, International Chemical Congress of Pacific Basin Societies, Honolulu, HI; American Chemical Society, Washington, D.C.; Abstract 05F14. [Abstracts]
5. Range, W. (1981). *Progress in physical organic chemistry*. vol. 13, Taft, R. W., ed., John Wiley & Sons, New York. 915-984. [Edited books]
6. Villa, R. R. (1999, March 4-5). "Corrosion induced by CO<sub>2</sub>- and H<sub>2</sub>S-saturated steam condensates in the Upper Mahiao Pipeline, Leyte, Philippines." 20<sup>th</sup> Annual PNOC—EDC Geothermal Conference, New World Hotel, Makati City, Philippines. [reference papers]