Analyze of Student Needs and Satisfaction With Learning Facilities in the Library Room of the Universitas Terbuka Palu

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Abstract
This study aims to analyze the level of student needs and satisfaction regarding learning facilities in the library space of Universitas Terbuka Palu. The background of this research lies in the crucial role of libraries in supporting the learning process, especially in the digital era that demands adequate facilities and quick access to information. The method used is quantitative with a survey approach, involving 55 student respondents. Data were collected through questionnaires and analyzed using validity tests, reliability tests, and descriptive analysis. The results show that the most needed facilities by students are computers (58.18%), power outlets (54.55%), and dedicated study rooms (49.09%). However, satisfaction with these facilities remains moderate, with average satisfaction scores ranging from 2.7 to 3.7. Computers and Socket received the lowest satisfaction scores. The validity test confirmed that all instrument items were valid (r > 0.266) and reliable, with Cronbach's Alpha values of 0.834 (needs) and 0.872 (satisfaction). These findings indicate the need for improvement in digital facilities and supporting infrastructure in the library space to meet user expectations and enhance learning quality.

Keywords: Facility Needs, Student Satisfaction, Academic Library, Learning Facilities, Universitas Terbuka

1.   Introduction

Libraries have an important role in supporting and advancing the world of education, especially in higher education. As an information center, libraries not only function as a place to store books, but also support the process of learning, research, and scientific development. Its existence is very vital for students, lecturers, and the academic community (Eskha, A. 2021).

Learning facilities are all equipment or equipment used to support the learning process in order to achieve educational goals. One of the main components is library facilities that play an important role in supporting the learning process such as computers, wi-fi, and others (Anunu, M, et al. 2023). According to Aisyah, S. & Rahma, E (2025) libraries must provide access for students to obtain various references in the form of books, journals, articles and other sources of information needed in learning activities so that students can broaden their horizons, improve the quality of material understanding, learn independently, and be able to develop critical and creative thinking skills in solving academic and non-academic problems (Aisyah, S. & Rahma, E 2025).

Gunartik, G., & Nainggolan, N.P (2021) in their research also said that along with the development of technology and changes in increasingly flexible learning patterns, libraries must adapt to meet the expectations of their users. Evaluation of learning facilities in the library room is very important to find out the extent to which the facilities can meet the needs of their users both

in terms of space quality, library materials, ease of access to information, comfort of space, and technological support (Gunartik, G., & Nainggolan, N.P, 2021).

Universitas Terbuka is one of the universities that offers a distance and face-to-face learning system, which is spread throughout Indonesia and abroad, one of which is in the Central Sulawesi area, Palu. Universitas Terbuka Palu needs to optimize its library space and facilities that can support the learning process of its students and the academic community.

The author observes that the learning facilities in the library room of the Universitas Terbuka Palu are still less than optimal compared to the expectations of its users. Although the library of the Universitas Terbuka Palu has a complete collection of books from each of its faculties, the number and diversity are still limited. The lack of diversity such as reference books, literature, and others, so that users who want to visit become disinterested and less meet the information needs they want to get. In addition, access to information technology such as computers or digital services to access other scientific information is limited, so the learning and discussion process becomes less in-depth.

Students' needs for learning facilities are related to how well the facilities provided can support their learning activities. Marhamah S, et al in their research entitled "The Influence of Learning Facilities on Student Learning Achievement in Higher Education" explained that learning facilities in the form of educational facilities affect learning achievement, this is because learning tools, teaching aids and learning media which are means of learning are needed in the learning process that can affect student achievement (Marhamah S, et al 2021).

Student satisfaction with learning facilities and library facilities can be measured through their perception of the quality and availability of these facilities. In student perception, it is a feeling that arises after a comparison between expectations and accepted reality (Utaminingsih, S., et al. 2024). Student satisfaction with library facilities is greatly influenced by several factors, such as the comfort of the reading room, the availability of collections relevant to learning needs, and media technology services. Students tend to feel satisfied if they can easily access library materials, get fast information services, and use facilities that support their academic activities (Endarti, S. 2022).

2. Research Method

This study uses a quantitative method with a survey approach that aims to describe, analyze, and measure the level of student needs and satisfaction with learning facilities in the library of the Universitas Terbuka Palu.

- The Quantitative Method is used because this research aims to collect data that is numerical and can be analyzed statistically. Through this approach, researchers can describe the situation with numbers and obtain more objective information regarding the needs and satisfaction of students with the learning facilities in the place.
- The survey approach was chosen as it allows the researcher to collect data directly from a number of respondents. This approach is effective in exploring information about

users' perceptions, expectations, and satisfaction levels with the facilities available in the library room.

This research aims to identify the level of students' needs and satisfaction with learning facilities in the library of the Universitas Terbuka Palu, such as a complete collection of readings, computer facilities, internet access and other services. In addition, the research aims to get input from users regarding future facility improvements and developments.

To achieve this goal, data will be collected using a questionnaire, which is distributed to library users who are students of the Universitas Terbuka Palu. This questionnaire is designed to explore information related to perceptions, expectations, and user satisfaction levels with learning facilities in the library.

The collected data will be analyzed descriptively to describe the existing conditions, and inferential statistics to find relationships or differences between the variables being studied. The results of this analysis will provide a clear picture of the level of needs, satisfaction and expectations of users for library facilities at the Universitas Terbuka Palu.

3. Results and Discussions

Validity test

Table 1. Validity Test Output

Variabel	Statement Items	Pearson Correlations (rhitung)	R tabel (n = 55; α = 0.05)	Conclusion
Need for Learning Facilities	X1-1 (Computer)	0,721	0,266	Valid
	X1-2 (Reference Book)	0,689	0,266	Valid
	X1-3 (Whiteboard)	0,663	0,266	Valid
	X1-4 (Study Room)	0,705	0,266	Valid
	X1-5 (Sockets	0,677	0,266	Valid
Student Satisfaction	X2-1 (Computer)	0,712	0,266	Valid
	X2-2 (Reference Book)	0,680	0,266	Valid
	X2-3 (Whiteboard)	0,655	0,266	Valid
	X2-4 (Table & Chair)	0,743	0,266	Valid
	X2-5 (Sockets)	0,598	0,266	Valid
	X2-6 (Lighting)	0,721	0,266	Valid
	X2-7 (Tranquility)	0,734	0,266	Valid
	X2-8 (Wi-Fi)	0,602	0,266	Valid
	X2-9 (Ventilasi)	0,687	0,266	Valid
	X2-10 (Hygiene)	0,770	0,266	Valid

Source: Primary Data processed at SPSS 25, 2025

Based on the table above, all statement items in the variables of Learning Facility Needs and Student Satisfaction have a value of r calculated > r table (0.266), so that all of them are declared valid and can be used in data collection and further analysis.

Reliability Test

Table 2. Reliability Test Output

Variabel	Number of Items	Cronbach's Alpha	Information
Need for Learning Facilities	5 item	0,834	Reliabel
Student Satisfaction	10 item	0,872	Reliabel

Source: Primary Data processed at SPSS 25, 2025

Based on the table above, both variables have a Cronbach's Alpha value of more than 0.70, so it can be concluded that all instruments in this questionnaire are reliable and suitable for use in the collection of research data.

Analysis of Student Needs for Learning Facilities

Based on the results of data collection consisting of 55 respondents, information was obtained about the needs of students for learning facilities in the library room of the Palu Open University. The results of the recapitulation of student needs are shown in the following table.

Table 3. Recapitulation of student needs

Facility Type	Number of Respondents in Need	Percentage (%)
Computer	32	58,18%
Reference Books and Literature	18	32,73%
Whiteboard or Whiteboard	11	20,00%
Dedicated Learning Spaces	27	49,09%
Sockets	30	54,55%

Source: Analysis of respondent questionnaire results, 2025

From the table above, it can be seen that the most needed facilities are Computer (58.18%), followed by sockets (54.55%) and Special study rooms (49.09%). This shows that students

urgently need digital-based learning support facilities, as well as comfort and power access for their devices.

Analysis of Student Satisfaction with Learning Facilities

To measure the level of student satisfaction with the facilities available at the library, a Likert scale was used with a range of 1 (very dissatisfied) to 5 (very satisfied). The average results of the satisfaction score are presented in the following table:

Table 4. Average Student Satisfaction with Learning Facilities

Facility Type	Average Score	Category
Computer	2,7	Quite satisfied
Reference Books and Literature	3,2	Satisfied
Whiteboard / Papan Tulis	3,0	Quite satisfied
Study Desks and Chairs	3,5	Satisfied
Stopkontak	2,9	Quite satisfied
Room Lighting	3,6	Satisfied
Tranquility of the room	3,7	Satisfied
Wi-Fi	3,1	Quite satisfied
Ventilation / Air Circulation	3,3	Satisfied
Room Cleanliness	3,6	Satisfied

Source: Results of the questionnaire, 2025

Based on the data above, the level of student satisfaction is classified as sufficient to satisfied, with the highest scores in room calmness (3.7) and room cleanliness (3.6). Meanwhile, computer facilities and power outlets received relatively low scores of (2.7) and (2.9) respectively, indicating that there is room for improvement in these aspects.

The results of the analysis showed that there was a gap between the level of need and student satisfaction with several facilities. For example, computers are the most needed facility, but they have low satisfaction scores. This can be caused by a limited number of computers, slow access speeds, or suboptimal device conditions.

Similarly, Whiteboards/Whiteboards are also in high demand, but student satisfaction with these facilities is only in the "satisfactory" category. This can indicate that the number or position of the Whiteboard/Whiteboard is not enough to support the comfort of students in using library facilities.

Meanwhile, aspects of the library's physical environment such as lighting, tranquility, ventilation, and cleanliness received high satisfaction scores, showing that the learning comfort factor in general is quite good and should be maintained.

4.   Conclusion

Based on the results of the research that has been carried out through the distribution of questionnaires to 55 respondents of Universitas Terbuka Palu students, it can be concluded that several things are as follows:

1) Students' Needs for Learning Facilities

Students show a high need for certain learning facilities in the library room. The most needed facilities were computers (58.18%), followed by power outlets (54.55%), and special study rooms (49.09%). This shows the importance of supporting learning infrastructure that supports digital activities and comfort in the learning space.

2) Student Satisfaction with Learning Facilities

The level of student satisfaction with learning facilities in the library room is generally in the category of quite satisfied to satisfied, with average satisfaction scores ranging from 2.7 to 3.7. The facilities with the highest level of satisfaction are the tranquility of the space (3.7) and cleanliness (3.6). However, there are facilities with low satisfaction levels such as computers (2.7) and sockets (2.9) that are still under the category of quite satisfied.

3) Instrument Validity and Reliability

All items of the student needs and satisfaction questionnaire were proven to be valid (r count > 0.266) and reliable. The reliability test resulted in a Cronbach's Alpha value of 0.834 for needs and 0.872 for satisfaction, which means that the instruments used are consistent and trustworthy.

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