

# The Correlation Between Learning Environment in the Nursing Laboratory and Student Learning Satisfaction with the GPA of Third Semester Nursing Students

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## ABSTRACT

*Background: In the learning process, its environment can affect students' concentration and information absorption, as well as their achievement of competencies. Student satisfaction with learning enhances their motivation to explore the material, thus improving their learning outcomes in terms of GPA. The purpose of this study is to determine the relationship between the learning environment in the nursing laboratory, student learning satisfaction, and the GPA of third-semester nursing students at the university. Method: This research is quantitative with an analytic correlation design and uses a cross-sectional approach. The sample was selected using purposive sampling with a total of 144 respondents. Univariate analysis is presented in frequency and percentage tables. Bivariate analysis employs the Pearson Product Moment test. Results: The results of the research using the Pearson Product Moment analysis show that the correlation coefficient ( $r$ ) of 0.682 indicates a significant relationship between the learning environment in the laboratory and student satisfaction with learning in nursing. The correlation between the learning environment in the laboratory and students' GPA is 0.635, while the correlation between learning satisfaction and students' GPA is 0.434, indicating a fairly strong correlation between these two variables. Conclusion: The significant correlation ( $p$ ) of 0.0001 indicates a strong positive correlation between the learning environment in the laboratory and learning satisfaction. The correlation between learning environment and students' GPA is strong, indicating that a better learning environment leads to higher GPAs. Additionally, the correlation between learning satisfaction and students' GPA is moderately strong.*

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## 1. INTRODUCTION

Education can be interpreted as a process that occurs systematically with the existence of acculturation, which affects aspects of understanding both input and output. Higher education is an important stage of education that has an applicable or generative character [1][2]. According to the WHO, education should use student-centered learning methods. Several problems related to educational institutions in Indonesia, especially in health education, include quality, relevance, the quality of graduates, equity, and efficiency. Extermination

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education is applied and theoretical-based education. In extermination education, if the environment does not give satisfaction to students, it will have an impact on achievement. The literature states that the learning environment is an important key to student achievement in academics and skills laboratories[3].

A nursing laboratory is a facility where students can practice nursing skills that have been learned through previous theory. One of the things that can be used as a reference for the success of learning implemented by an institution or health education institution is student learning satisfaction. This is related to the existence of learning satisfaction, which is able to increase motivation so that students try to study the material better and, in the end, are able to improve their learning outcomes in the form of a GPA. Based on increase in student learning satisfaction, there are several aspects that distinguish this research, namely the clear division of tasks related to good management and learning methods [4]. Showing that there was a relationship between the quality of health services and the level of patient satisfaction. In addition, research on the description of the level of satisfaction with the quality of nursing laboratory services shows the results of student satisfaction levels with the quality of laboratory services based on physical evidence aspects in the dissatisfied category; most of the respondents stated that they were satisfied, but there is no variable regarding GPA in this study, so it is necessary to conduct a study to determine the learning environment and satisfaction with learning outcomes in the form of GPA[5].

Preliminary study on Semester III Undergraduate Nursing Students at Muhammadiyah University Purwokerto on October 20, 2022 using a survey method on 30 students showed 25 students (83.3%) stated that the service quality of the Undergraduate Nursing laboratory was satisfactory judging from the laboratory learning environment which was designed according to student needs, the facilities and infrastructure available in the complete learning process, the management and management of the laboratory are good, the learning methods applied in the laboratory are good and the performance of the managers (teachers and staff) of the laboratory is good with a very satisfactory student GPA because in the range (3.51-4, 00). Whereas 5 students (16.6%) said they were unsatisfactory judging from the inadequate laboratory learning environment and the schedule for practicums, sometimes with satisfactory student GPAs because they were in the range (2.76-3.50). In general, the 25 students said that it was satisfactory that the learning environment in the nursing laboratory on campus met student expectations so that the student GPA was in the very satisfactory range.

With this in mind, it is necessary to increase student satisfaction by implementing an effective laboratory learning environment. With an effective learning environment, it is possible that the satisfaction experienced by students when completing the semester in the form of a grade point average (GPA) will be higher. Seeing the completeness of the facilities and infrastructure contained in the laboratory can help students improve their learning achievement. Based on this phenomenon, the authors are interested in researching "the relationship between the learning environment of the nursing laboratory and student learning satisfaction with the GPA of third semester nursing students at Muhammadiyah University Purwokerto". The reason why the writer chose Nursing S1 Semester III was because the writer saw the phenomenon in that place and was strengthened by a preliminary study, so it was necessary to do research.

## **2. RESEARCH METHOD**

This study uses a non-experimental quantitative research design with a cross-sectional approach. This type of research is non-experimental quantitative research with a correlation analytic research design through a cross-sectional approach. This research is located at Campus II, Faculty of Health Sciences, Universitas Muhammadiyah Purwokerto. The research was conducted in February 2023. The population in this study was 224 undergraduate students in the 2022–2023 academic year, Semester III, Universitas Muhammadiyah Purwokerto. The sample in this study was 144 third-semester nursing students who were obtained through purposive sampling (non-probability sampling). Data collection was carried out in this study using two questionnaires, including the following: the nursing laboratory learning environment questionnaire consisted of 15 questions for each variable, and the learning satisfaction questionnaire consisted of 23 questions for each variable. The questionnaire used is standard. The data were then analyzed by frequency distribution, Kolmogorov-Smirnov, and Pearson Product Moment.

## **3. RESULT AND DISCUSSIONS**

The results of data collection were analyzed using univariate and bivariate analyses. Results of research that has been carried out.

Table 1. Frequency distribution of respondents based on gender, age, GPA and interest in Nursing study program (n=144)

Characteristics of Respondents	f	%
<b>Gender</b>		
Male	46	31.9
Woman	98	68.1
<b>Age (Years)</b>		
18	3	2.1
19	79	54.9
20	52	36.1
21	7	4.9
22	2	1.4
23	1	0.7
<b>GPA</b>		
Satisfying	87	60.4
Very Satisfactory	57	39.6
<b>Nursing As Interest</b>		
1	122	84.7
2	22	15.3

Based on table 1 above, shows that the majority of nursing students are female and male. Of the total respondents, there were 144 students, consisting of various ages, namely 18-23yearsold. It is known that students with satisfactory GPAs and those with very satisfactory.

Table 2. Distribution of the frequency of assessments / descriptions of the environment study nursing laboratory (n=144)

Variable	Good		Moderate		Bad	
	f	%	f	%	f	%
Laboratory facilities (facilities and infrastructure)	70	48.6	74	51.4	0	0
Management applied in the laboratory	93	64.6	51	35.4	0	0
The learning method applied in the laboratory	104	72.2	40	27.8	0	0
Manager performance (teachers and staff) laboratory	101	70.1	43	29.9	0	0

Based on table 2 above, shows the results of the analysis of the distribution of the frequency of assessment of each learning environment variable in three assessment categories, namely good, medium, and bad. The management performance variables (teaching and laboratory staff) are the same as the learning method variables; there are no bad category ratings, and good ratings and moderate ratings.

Table 3. Frequency distribution of learning satisfaction assessment (n=144)

Learning Satisfaction	f	%
High	93	64.4
Medium	51	35.4
Low	0	0

Based on table 3 above, shows the frequency distribution of learning satisfaction from all respondents, amounting to 144 respondents. It is known that those who gave high learning satisfaction ratings consisted of 93 respondents, or as much as 64.4%; medium ratings consisted of 51 respondents, or 35.4%; and no respondents gave low learning satisfaction.

Table 4. Distribution of GPA frequency of Semester III Nursing Undergraduate Students (n=144)

GPA	f	%
Very Satisfactory	57	39.6
Satisfying	87	60.4
Not Satisfactory	0	0

Based on table 4 above, shows the frequency distribution of Semester III Nursing Undergraduate Students' GPA from all respondents, totaling 144 respondents. It is known that the GPA with a very satisfactory rating consisted of 57 respondents, or as much as 39.6%; a satisfactory rating consisted of 87 respondents, or 60.4%; and there was no GPA with a low rating.

Table 5. Relationship between laboratory learning environment and satisfaction student learning

<b>Satisfaction relationship Study With</b>	<b><i>r-pearson</i></b>	<b><i>p</i></b>
Laboratory Learning Environment	0,6820,0001	

Based on table 5 above, shows the results of the correlation analysis, or the value of the relationship between the laboratory learning environment and student learning satisfaction. The correlation value or correlation coefficient obtained is 0.682; this value indicates a strong correlation between the two variables.

Table 6. The relationship between laboratory learning environment and GPA student

<b>Learning Environment Relations Laboratory With</b>	<b><i>r-pearson</i></b>	<b><i>p</i></b>
Student GPA	0,635	0,0001

Based on table 6 above, shows the results of the correlation analysis or the value of the relationship between the laboratory learning environment and student GPA. The correlation value or correlation coefficient obtained is 0.635; this value indicates a strong correlation between the two variables.

Table 7. The relationship between student learning satisfaction and GPA student

<b>Satisfaction Relationship Study With</b>	<b><i>r-pearson</i></b>	<b><i>p</i></b>
Student GPA	0,4340,0001	

Based on table 7 above, shows the results of the correlation analysis or the value of the relationship between student learning satisfaction and student GPA. The correlation value or correlation coefficient obtained is 0.434; this value indicates a fairly strong correlation between the two variables.

The discussions based on the research results, it is known that there were total of 144 respondents, consisting of 37 students from class A, 37 students from class B, 36 students from class C, and 34 students from class D. A total of 144 respondents in this study with the first research characteristics based on gender who have interest in the nursing major were dominated by female students as much as 68.1%, or 98 students, and male students only at 31.9%, or 46 students. According to Wulandari (2012), this is influenced by the stigma that has been attached to society for a long time; nurses have been considered a profession that is suitable for women, so it directly influences interest in nursing in society.

This can be seen from the achievement or acquisition of student learning outcomes based on GPA, where based on the results of the analysis, it is known that students with an unsatisfactory GPA (0%), as many as 87 students (60.4%) are satisfied, and as many as 57 students (39.6%) are very satisfied. Interest in nursing was the next characteristic for 122 respondents (84.7%) who were interested in the first nursing major and the remaining 22 respondents (15.3%) who were secondarily interested in this major. Working as a nurse is a job that is based on instinct, so this department is mostly dominated by women. Whereas male students who are a minority, men who choose to become nurses use their rational minds as humans who have a high human spirit.

The results of the analysis of the description of the learning environment for the facility variable show a good category assessment. The laboratory environment is a place where students practice various skills. Implementation of the nursing laboratory is quite good; in student preparation tools and places are in a pretty good category; in the process of mentoring, demonstration methods and simulation methods are in a pretty good category; and in evaluating learning outcomes, the laboratory environment is in a good category, which indicates that the laboratory environment is very influential on learning.

Based on the research that has been done on the relationship between learning satisfaction and the laboratory learning environment, it shows significant results, which means that it is accepted that there is a relationship between learning satisfaction and the laboratory learning environment. Based on the research that

has been done on the relationship between learning satisfaction and the laboratory learning environment, it shows significant results, which means that it is accepted that there is a relationship between the laboratory learning environment and student GPA. Based on the research that has been done, the relationship between learning satisfaction and the laboratory learning environment shows significant results, and it is accepted that there is a relationship between the laboratory learning environment and student GPA. The purpose of implementing a student satisfaction measurement is related to various aspects and components related to the educational institution's environment as a form of maintaining the quality of the institution.

#### 4. CONCLUSION AND RECOMMENDATION

The conclusion of the research results is that the characteristics of respondents based on the interests of the majority of students (84.7%) show a first interest in the nursing department. By type, nursing students were dominated by women (68.1%). The majority of nursing students have good achievements, as seen by all respondents who do not have an unsatisfactory GPA. The description of the laboratory learning environment is in the moderate category in terms of laboratory facilities (facilities and infrastructure), management applied in the nursing laboratory, learning methods applied in the laboratory, and the performance of laboratory managers (teachers and staff). The description of student learning satisfaction is in the medium category, and there are no respondents with low learning satisfaction. The description of the semester III student GPA is satisfactory.

The relationship between the laboratory learning environment and learning satisfaction has a strong relationship with a positive correlation direction, which indicates that the better the learning environment, the better the learning satisfaction. The relationship between the learning environment and student GPA has a strong relationship indicating that the better the learning environment, the better the student GPA will be. The relationship between learning satisfaction and student GPA has a fairly strong relationship, which shows that the more satisfied students are with the service, the higher the GPA they get.

For future research, it is expected to analyse more variables or other factors that might influence student learning satisfaction, such as the responsiveness of laboratory staff in serving students, the speed and accuracy of procedures for returning laboratory equipment, and the availability of supporting facilities.

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