



STUDENT SATISFACTION AND LEARNING OUTCOMES FOR THE PEDIATRIC NURSING COURSE THROUGH PROJECT BASED LEARNING

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ABSTRACT

Educational institutions organize education to prepare students to have knowledge, attitudes, and psychomotor skills. The learning process is organized to achieve Graduate Learning Outcomes which refers to the Indonesia's national qualifications framework. The learning process is interactive, holistic, integrative, scientific, contextual, thematic, effective, collaborative and student-centered. Therefore it is necessary to choose a learning strategy that is in accordance with the learning achievements of graduates. Objective: This study aims to determine student satisfaction and learning outcomes in the Pediatric Nursing Course through Project Based Learning (PjBL). Method: This research design is a type of quantitative descriptive research. The population in this study were students from Diploma Nursing Program in Universitas Muhammadiyah Klaten. The population of this study was 350 students, while the research participants were 107 students. The participants were students from Diploma Nursing Program who are currently taking Pediatric Nursing courses. Sampling technique was total sampling. Data collection used a questionnaire designed by the researcher. The data were then analyzed using univariate analysis. Results: Most of them got learning outcomes A, namely as many as 51 people (47.7%) and student satisfaction was mostly very satisfied, namely as many as 90 people or 84.1%. Conclusions: After participating in PjBL activities, student learning outcomes were very good and student satisfaction was very satisfied.

Keywords: learning; outcome; satisfaction

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INTRODUCTION

The learning process is the main activity held in educational institutions. Educational institutions organize education to prepare students to have knowledge, attitude and psychomotor abilities. The learning process is organized to achieve Graduate Learning Outcomes which refers to the IQF qualifications. The learning process has interactive, holistic, integrative, scientific, contextual, thematic, effective, collaborative, and student-centered characteristics (Peraturan Menteri Pendidikan Dan Kebudayaan Republik Indonesia Nomor 3 Tahun 2020 Tentang Standar Nasional Pendidikan Tinggi, 2020). Because of this, it is necessary to choose a learning strategy to suit the learning achievements of graduates. The learning carried out is expected to be student-centered which is referred to as Student Centered Learning (SCL).

SCL learning models are very diverse, one of which is Project Based Learning (PjBL). The results of previous research from Sari & Angreni (2018) on 45 students of the Bung Hatta University FKIP elementary school teacher education program show that the Project Based

Learning learning model can increase student creativity. Another study from Hayati, W.I., Utaya, S., Astina, (2016) on 36 students showed that the level of effectiveness of Project Based Learning-based Student Worksheets in cultivating students' critical thinking skills after learning had good critical thinking qualifications, and the level of student responses to Project Based Learning-based Student Worksheets had proper qualifications. , meaning that the resulting worksheet can be accepted by students and learning activities are easy to implement using worksheet. Student satisfaction is an indicator of the quality of learning held by an institution. Student satisfaction after participating in the learning process needs to be evaluated in order to determine a follow-up plan. Rahmawati's research show that lecturer professionalism is the most dominant factor in student satisfaction (Rahmawati, 2013). The Diploma Nursing study program has 350 students. Learning activities carried out in the Pediatric Nursing Course so far consist of lectures and questions and answers, small group discussions and simulations. PjBL was introduced to students with the aim of supporting learning achievements in Pediatric Nursing. This study aims to determine learning outcomes and student satisfaction after participating in Project Based Learning

METHOD

This reseach was quantitative descriptive with cross sectional approach. The population of this study were all students of the Diploma 3 Nursing Study Program totaling 350 students. D3 Nursing Study Program students who are currently taking Pediatric Nursing courses. Sampling technique: total sampling with exclusion criteria: 1) Not present at the time of data collection; 2) Not currently taking Pediatric Nursing courses. Because of this, the sample chosen was D3 Nursing Study Program students at Level 2 with a total of 107 students. The variable in this research was independent variable. The independent variable in this research was student satisfaction and learning outcomes after participating in Project Based Learning.

Data collection used a questionnaire designed by the researcher. The instruments consisted of a student satisfaction questionnaire and a questionnaire about learning outcomes. The student satisfaction questionnaire consists of 7 multiple choice questions with 5 possible answers, namely: 1: Very Bad, 2: Bad, 3: Fairly good, 4: Good and 5: Very good. The learning outcomes questionnaire consists of 10 multiple choice questions with 4 answer choices. The questionnaire has been used to test the validity of the use of students at Muhammadiyah University of Klaten with 47 respondents. The validity test used the Pearson Product Moment, while the reliability test of the student satisfaction questionnaire used Cronbach's Alpha and the learning achievement questionnaire used Split-half. The results of the validity test of the student satisfaction questionnaire were found to be valid with r count 0.613 to 0.896. The results of the validity test of the learning outcomes questionnaire were found to be valid with r count 0.403 to 0.763. The results of the reliability test of the student satisfaction questionnaire obtained an r count of 0.906, while the reliability test of the learning outcomes questionnaire obtained an r count of 0.421. Both are declared reliable.

The data that has been collected is then scored, coded and analyzed. The categories of student satisfaction are as follows: 1. 75% - \leq 100% Very Satisfied, 2. 50% - \leq 75% Satisfied, 3. 25% - \leq 50% Dissatisfied, 4. 0% - \leq 25% Very Dissatisfied. The student learning achievement categories are as follows: A: 80-100, B: 68-79, C: 56-67, D: 40-55, E: <39 Respondents were divided into two groups for each class so that there were 6 groups in total. Each group measured student satisfaction and learning outcomes after carrying out PjBL in the form of early detection of growth and development of pre-school children and health education. The data were then analyzed using univariate aalysis.

RESULTS

Table 1.
Respondent characteristics (n= 107)

Respondent characteristics	f	%
Gender		
Male	17	16
Female	90	84
Class		
Class A	37	34,6
Class B	33	30,8
Class C	37	34,6

Table 1 above, the majority of respondents were female, namely 90 people (84%) and most of them came from Class A and Class C.

Table 2.
Learning Outcome and Student Satisfaction (n= 107)

Variables	f	%
Learning Outcome		
A	51	47,7
B	17	15,9
C	18	16,8
D	19	17,8
E	2	1,9
Student Satisfaction		
Very Unsatisfied	0	0
Unsatisfied	0	0
Satisfied	17	15,9
Very Satisfied	90	84,1

Table 2 above, most of them got learning outcomes A, namely as many as 51 people (47.7%) and student satisfaction was mostly very satisfied, namely as many as 90 people or 84.1%.

Table 3.
The Results Of The Analysis Of Learning Outcomes For Each Question (n= 107)

Question	True		False	
	f	%	f	%
Tools needed in anthropometric examination	99	92,5	8	7,5
How to do a proper height check	105	98,1	2	1,9
Determination of nutritional status in children	72	67,3	35	32,7
The tools needed for the Developmental Pre Screening Questionnaire examination	83	77,6	24	22,4
Interpretation of child development	98	91,6	9	8,4
How to do a visual acuity test	91	85	16	15
Interpretation of ADHD detection examination	73	68,2	34	31,8
Interpretation of the autism detection examination	57	53,3	50	46,7
How to calculate chronological age	49	45,8	58	54,2
Chronological age calculation	42	39,3	65	60,7

Table 3 shows that the question items with the most correct answers were questions about how to do a proper height check, namely 105 people (98.1%). While the question items with the most wrong answers were questions about calculating chronological age, namely 65 people (60.7%). Table 4 the table above shows that one question item that has a bad response is about the supervisor's timeliness in carrying out activities at the location

Table 4.
Results of Student Satisfaction Based on Each Question (n=107)

Pertanyaan	Very Bad		Bad		Fairly Good		Good		Very Good	
	f	%	f	%	f	%	f	%	f	%
The ability of the supervising lecturer in explaining the project to be carried out	0	0	0	0	16	15	55	51,4	36	33,6
Allocation of supervising lecturer time in discussion and question and answer	0	0	0	0	13	12,1	61	57	33	30,8
Providing feedback / feedback by the supervising lecturer on the assignments that have been done by students	0	0	0	0	15	14	59	55,1	33	30,8
The timeliness of the supervising lecturer in carrying out activities at the location	0	0	2	1,9	10	9,3	59	55,1	36	33,6
Monitoring student project progress by supervisors	0	0	0	0	11	10,3	63	58,9	33	30,8
An attitude of openness and cooperation between supervisors and students	0	0	0	0	8	7,5	63	58,9	36	33,6
Availability of adequate learning facilities for project implementation	0	0	0	0	14	13,1	63	58,9	30	28

DISCUSSION

Learning Outcomes

Based on the results of this study, it was found that the learning outcomes of the respondents mostly obtained achievement A, which was 47.7%. This shows that after participating in PjBL students can apply growth and development examinations to pre-school-age children. According to Larmer, J., Mergendoller, J., Boss, (2018), PjBL provides opportunities for students to develop problem-solving skills, responsibility, working with others, working independently, critical thinking, self-confidence, time management and communicating with many people. PjBL also inspires and motivates students who are passive, fun and increase test scores. Fathurrohman (2015) also explained that the PjBL method is a learning model that uses projects or activities as learning tools in achieving attitude, knowledge and skill competencies. This is supported by the research results of Hikmawati et al., (2018) which showed that PjBL had a positive effect on increasing students' cognitive, affective and psychomotor abilities. There was a significant difference between the control group and the intervention group after the PjBL learning method was used.

The results of this study show an average score of 72. The results of Hikmawati et al., (2018) showed that the average value of students' cognitive abilities after PjBL before the intervention was 66.75 while after the intervention was 75.7. In the PjBL activities carried out in this study students started from preparing activity proposals, coordinating with groups and partners in activity locations to preparing reports. Prior to the implementation of the project, students studied material about examining growth and development. Students can understand better about examining growth and development through the PjBL model. This is in accordance with the opinion of Yadika et al., (2019) who explain that the PjBL model is recommended as an effort to improve learning outcomes in tertiary institutions because this model provides input and follow-up that is useful for improving students' soft skills and hard skills.

The research results of Safaruddin et al., (2020) show that PjBL has a better contribution compared to Direct Instructional in achieving learning outcomes. According to Efstratia (2014), the essence of PjBL is real experience that attracts students' interest and provides students' thoughts when gathering and applying their new knowledge. PjBL also provides real

experience so that students can learn by doing or known as "learning by doing". PjBL provides real experience for students so that it can increase the ease of achieving learning outcomes for students. This is in accordance with the results of previous research which shows that there is an influence of clinical experiential learning on the clinical learning outcomes of emergency nursing nursing students, where the influence is 0.502 times (Helmi Setiawan et al., 2018). The results of previous research also show that there are several learning methods that can significantly improve the clinical skills of nursing students, namely through Flipped Learning, Video skills, Interactive Clinical Nursing Skills Mobile Applications, High-Fidelity, Clinical Teaching Associates and End of Life Care (Al-Amin et al., 2020). This can be applied to improve the skills of nursing students.

Based on the analysis per question, what students need to improve is their understanding of calculating chronological age. Calculating chronological age is needed as a basis for determining the instrument for examining growth and development in children. Efforts that can be made to improve these skills can be done through laboratory learning. In accordance with the results of the previous study from Elfi (2022) which shows that the implementation of the Child Nursing skills lab learning plan which is carried out in accordance with the Semester Learning Plan and carried out in a structured and systematic manner can improve the quality of learning in the Pediatric Nursing Course. The learning methods used in the skill lab include: conferences, tutorials, bedside teaching action and observation, client care and resumes. Nursing practicum learning methods can be done in a more varied way. The results of previous research indicate that the lecture method with the help of video media is effective in learning nursing practicum (Sustiyono, 2021). Practical learning can help achieve learning outcomes for students. The research results from Vattanaamorn et al., (2022) showed that more than half of nursing students (52.3%) achieved learning outcomes at a moderate level and the perceptions of nursing students and instructors also influenced learning outcome achievements.

Student Satisfaction

The results of this study indicate that most are classified as very satisfied, namely as much as 90%. The results of research from Sidaria et al., (2022) show that most of the students' satisfaction with clinical learning is satisfied. Research by Parut & Buntari Agustini (2019) also shows that most students have a very satisfied level of satisfaction. The results of previous research also show that on average students are satisfied with the quality of the learning process, where in the tangible aspect of the item the highest satisfaction is in the neatly dressed lecturer item, in the reliability aspect of the item the highest satisfaction is in the item the time provided for discussion and question and answer is sufficient, in the aspect of responsiveness item, the highest satisfaction is in the item, the lecturer is responsive in answering student questions, in the assurance aspect, the satisfaction item is highest in the item, the lecturer is friendly in lectures. In the empathy aspect, the highest satisfaction item is the lecturer being open and cooperative with students (Murdiyanto & Bintari, 2020) .

The results of other studies show that the level of student satisfaction in clinical learning is highest in the dimensions of leadership style (Sidaria et al., 2022). This supports the results of this study that the supervisor's ability to explain the project to be carried out as well as the attitude of openness and cooperation between supervisors and students has the most excellent response answers compared to other items. The results of studies from Venkateswarlu et al., (2020) shows that the main factors determining student satisfaction while studying at private tertiary institutions are qualified and knowledgeable teaching resources as well as world-class infrastructure with supporting technology. The aspect that shows dissatisfaction is the cost of

the program. Student satisfaction has been shown to have an impact on the institution's reputation and the loyalty of students and graduates to the institution, so meeting student needs and ensuring that students are satisfied with their learning experience is an important priority.

PjBL provides real experience for students, this also provides a conducive learning environment for students. This is in accordance with (Putra et al., 2020) which shows that there is a relationship between the learning environment and student satisfaction, where the dimensions of pedagogic learning and the role of the teacher have the most influence on student satisfaction. PjBL encourages students to be able to work in teams. Team-based learning methods or Team Based Learning (TBL) can develop the ability to work in teams with a learning approach that encourages students to play an active role in carrying out the learning process (Wahyu Riyaningrum, Nur Isnaeni, Elsy Maria Rosa, 2021). Things that need to be improved based on the question items are the lecturer's timeliness in attendance at activity locations and the availability of facilities in implementing PjBL. The results of previous studies indicate that student satisfaction has a significant effect on lecturer performance. This is because in performance measurement it is influenced by students where they can carry out their duties both measured in quantity, quality, cooperation and time efficiency where it is more influenced by the students themselves individually. (Lussianda, 2019).

Isnaini et al., (2015) through his research shows that there is a positive and significant influence between lecturer competence and learning facilities on student satisfaction. This means that lecturers are expected to always develop and improve their competencies and there is a need to improve learning facilities including facilities and infrastructure to support the learning process. The competencies that lecturers need to have are pedagogical competence, personality competence, professional competence and social competence. The results of previous research also show that the determining factors for student satisfaction with higher education services are tangibles, reliability, responsiveness, assurance and empathy. If necessary, the reliability factor must first be increased because it has a dominant influence in determining student satisfaction with higher education services (Tanjung et al., 2019). Aspects of reliability, namely the ability to provide promised services promptly, accurately and satisfactorily. This aspect is implemented by accompanying students during PjBL activities. Student satisfaction is influenced by the quality of academic services. This is in accordance with research from Kamal et al., (2020) that 80.4% of student satisfaction is influenced by the quality of academic services. While the rest is influenced by other factors, namely facilities, performance, additional features, reliability, compliance with specifications, durability, serviceability, aesthetics and perceived quality.

CONCLUSION

The characteristics of the respondents in this study were that the majority of respondents were female and came from Class A and C. Most of them got learning outcomes A, namely as many as 51 people (47.7%) and student satisfaction was mostly very satisfied, namely as many as 90 people or 84.1%.

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