Worksheet on the Emergency Nursing Subject: Students' Perception and Academic Performance

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Abstract: Students' perception of learning method may be influenced by students' diversity, educational facility and tools, students' expectation, and other school's conditions. Meanwhile, students' perception was not widely researched in terms of the use of the learning method, student's worksheet, for example. Aim of this study was to identify students' perceptions of the use of learning media (students' worksheet), academic performance, and their correlation. The design of this study was an observational, descriptive study with a cross-sectional approach. A total of 82 students completed a self-administered questionnaire which contains ten statements using a 5-Likert scale. The primary predictor variables were students' perception and academic performance. Data analysis used descriptive statistics and Spearman Rho test. Of 82 respondents, majority (85, 4%) had positive perceptions of student worksheets in the Emergency Nursing subject. More than half of them (59, 8%) had above-average academic performance, and there was also significant correlation between perceptions of the students with their academic achievement (*p-value* = 0.000). This present research has portrayed findings regarding how nursing students in an Indonesian nursing school perceive the learning method. The current study suggests that the lecturers should modify their learning method creatively to improve students' capabilities in active learning.

1 INTRODUCTION

Student perceptions on the educational environment may be used as a basis for enabling adjustments to learning methods and to optimize the educational environment. The educational environment intended to be modified can be in the form of new programs/majors, curriculum, and strategies; where this will be expected to improve the atmosphere of learning in students (Aghamolaei and Fazel, 2010; Awang *et al.*, 2013).

Substantial learning correspond with students' perceptions on their educational environment, where this will have an impact on student experience and learning outcomes (Hawkins *et al.*, 2013; Moore, Westwater-Wood and Kerry, 2016). Perception of the students on the learning methods might be influenced by the diversity of students, educational facilities and equipment, their expectations and the state of other universities (Al-Fahad, 2009; Awang *et al.*, 2013; Schultz *et al.*, 2014).

Research studies focusing on the influence of instructional media have mainly looked at student experiences with little focus on student perceptions and their relation to learning outcomes (Tippin, Lafreniere and Page, 2012; Blair, Maharaj and Primus, 2016). Students also consider learning interactions in the classroom to be an important factor in education and they show increased learning outcomes and higher satisfaction with the method (McLaughlin *et al.*, 2013; Purwanto and Pratiwi, 2017). Another learning model strategy, peer coaching, which apparently facilitate the learning process in complex subject areas (found in the health sciences major). This learning strategy is supported by social learning theory where students showed positive perceptions (Hawkins *et al.*, 2013; Moore, Westwater-Wood and Kerry, 2016).

The present research focused on student perceptions related to the learning environment; in this case, the method is essential to be explored. Therefore, it is necessary to identify or study students' opinions about the use of instructional media in the form of student worksheet, especially in the Emergency Nursing subject, which later is expected to see learning optimization.

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2 METHODS

The current research was an observational study with a cross-sectional approach. Population used in this study consisted of all nursing students studying in the academic year of 2018-2019 at the Faculty of Health Sciences University of Muhammadiyah Malang. The study used a non-probability sampling technique where all respondents were active students registered at the Faculty of Health Sciences UMM. A response rate of 91% was achieved in this research, where there were 82 respondents from a total of 90 target populations completed the questionnaire.

The instrument used in this study was a self-administered questionnaire (SAQ) adapted from one of the domains of The Dundee Ready Education Environment Measure (DREEM). The DREEM was developed by an International Delphi panel in Dundee, Scotland (Miles, Swift and Leinster, 2012). The area of perception at DREEM was modified to fit with the academic culture in the study. The questionnaire consisted of 10 statements on the perceptions of students regarding the use of student worksheet as a learning medium of the Emergency Nursing subject.

All respondents were asked to read each statement and to respond using the 5-point Likert scale ranging from strongly agree to strongly disagree. Statement items were scored as follows: 4 to strongly agree, 3 to agree, 2 to doubt, 1 to disagree, and 0 to disagree strongly. All items were calculated with the minimum score of 0, and the maximum score of 40. Therefore, a higher score indicated a more positive perception of the students.

Before being distributed to respondents, the research instrument was first tested for validity and reliability of 10 students who were not involved in the main study. The results of the validity test found that all statements were valid with a range of scores between 0.57 and 0.86. A Cronbach Alpha's score was 0.82 which meant that the research instrument was reliable to use. The primary predictor variable used a score obtained from the final paper-based test at the Emergency Nursing subject. The score ranged from a minimum of 0 and a maximum of 100. The range was based on the academic rules applied at the university where the minimum passing grade is 65. Students whom scores above 65 were categorized as above-average; meanwhile, students whom scores below 65 were classified as below-average.

Prior to data collection, the researcher explained the background, purpose, and significance of the study to the respondents. Completion of this questionnaire was voluntarily. The collected data were analyzed using the SPSS program. A descriptive analysis was used to explain demographic variables, student perceptions, and academic performance. Two bivariate analysis included in this current study were: the Mann Whitney test which was used to identify a difference on academic performance of the students based on their judgments, and: a correlation test of Spearman Rho which was used to explore the relationship between variables. Researcher applied the significance level of 95% for all types of statistical analysis.

3 RESULTS AND DISCUSSION

From table 1, it can been seen the characteristics of respondents based on gender and academic performance. Of the total 82 students, the majority of students were female (n = 66, 80.5%); majority of the students had positive perceptions (n = 70, 85.4%); and more than half of them had above-average academic performance (n = 49, 59.8%) (see Table 1). Students whose positive perceptions about the use of student worksheets, more students had above-average academic achievement (n=70%) than of below-average academic achievement (30%). Furthermore, in students with negative perceptions about the use of student worksheets, all students below-average academic achievement (100%) (see Table 2).

The current studys' results indicated that students with positive perceptions tended to achieve higher scores compared to students with negative perceptions. Other study also found that students with higher scores on their perceptions had higher scores on their final test (Aghamolaei and Fazel, 2010; Ahmed et al., 2018). Other studies indicated that students who had a favorable perception about the active method of learning perceiving the ability to delay, reverse, and revise lectures, as well as enhanced personal learning (Schultz et al., 2014; Blair, Maharaj and Primus, 2016).

In this current study, the majority of students have positive perceptions about using student worksheets and have above-average academic performance. These tendency might occur because the method of using student worksheets contributes an opportunity for students to be more active in learning, to be able to discuss, solve problems and find solutions related to case questions contained in the student worksheet (Aghamolaei and Fazel, 2010; Osakue, Ph and Thomas, 2011).

Table 1: Characteristics of respondents based on gender, perception, and academic performance.

Characteristics		N	(%)
Gender	Male	16	19.5
	Female	66	80.5
Perception	Positive	70	85.4
	Negative	12	14.6
Academic performance according to final score	Above-average	49	59.8
	Below-average	33	40.2

Table 2: Crosstabulation between student perceptions and academic performance.

Variable		Academic Performance		Total
		Below-average	Above-average	
Perception	Negative	12	0	12
	Positive	21	49	70
Total		33	49	82

Table 3: Mann Whitney Test of students' academic performance based on perception.

Variable	Academic performance				p-value
	Above-average		Below-average		
	Mean (%)	SD	Mean (%)	SD	
Perception	29.26 (59.8)	2.055	22.3 (40.2)	2.580	0.048

Table 4: Spearman Rho test result.

		Academic performance	Perception
Academic performance	Correlation Coefficient	1.000	.825**
	Sig. (2-tailed)	.	.000
	N	82	82
Perception	Correlation Coefficient	.825**	1.000
	Sig. (2-tailed)	.000	.
	N	82	82

**. Correlation is significant at the 0.01 level (2-tailed).

This study also found that there was a significant difference in students' perceptions based on their academic performance (p-value = 0.048). The mean score of student's perceptions who had above-average academic performance was higher (M = 29.26, SD = 2,055) than of student's perceptions who had below-average academic performance (M = 22.30, SD = 2.58) (see Table 3).

From this study, it also showed a positive correlation between perceptions of students on the use of student worksheets and student's academic performance (p-value = 0.000) (see Table 4). Students with above-average academic performance tended to have positive perceptions about the use of student worksheets. The results of this study are consistent with several previous studies that have been conducted related to the perceptions of students with several forms of academic performance and to foresee the possibility of educational results in specific persons (Choo *et al.*, 2011; McLaughlin *et al.*, 2013).

As the previous study, it is suggested that respondents with high scores in the educational environment also have higher GPA scores (Choo *et al.*, 2011; Miles, Swift and Leinster, 2012; Ahmed *et al.*, 2018). Similar findings also found that students who perceived positively in their learning environment tended to have a better academic result (Wayne *et al.*, 2013; Schultz *et al.*, 2014; Lopes and Soares, 2018) and will positively affect their achievement in learning (Awang *et al.*, 2013; Schultz *et al.*, 2014; Purwanto and Pratiwi, 2017).

Moreover, The limitation of this current study is that it involved nursing students from a particular academic institution, with a non-random sampling. Therefore, it might constrict the generalisability of its findings to other medical or nursing schools. Furthermore, there is a need for qualitative methods using a semi-structured interview to examine the conceptualization of an academic environment.

4 CONCLUSIONS

This research has portrayed findings regarding how students in an Indonesian nursing school perceived the learning method used in the educational context. These results, overall, that the student's perceptions on the use of student worksheets in the Emergency Nursing subject were on the positive side. In terms of academic performance, more than half of students had above-average academic achievement, and there was a significant correlation between students' perceptions with academic achivement. Overall, the current study suggests that the lecturers should modify their learning method creatively to improve students' capabilities in active learning.

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