

The Effect of Strategies Problem Based Learning in Improved Learning Results of the Application of the Concept of the Basic Nursing Course

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Abstract: Problem based learning (PBL) is results of a learning process of investigating, understanding and provide the solution of a problem. Problem based learning (PBL) is very effective for nursing school, where students were faced with the problem then is required to solve it. This research aims to know the influence of learning problem based learning strategies against the results of the study of the application of the concept in the basic nursing courses. The respondents in this study were 67 students in grade two of program diploma III nursing. The results showed that an increase in student learning outcomes. This is evident by the presence of the influence the learning problem based learning strategies against the results of the study of the application of the concept on the basis of nursing course.

Keywords: Problem based learning, learning result, nursing.

INTRODUCTION

Education Diploma III Nursing is education that is academic students, which means that this education program has academic Foundation and cornerstone of the profession. Graduate of the vocational as a nurse has the attitude and ability in the field of nursing are obtained on the application of curriculum education through various forms of experiential learning, in particular learning experience learning labs, clinics and field learning experiences that are carried out on real health care order which is equipped with facilities to support achievement of learning objectives that will be achieved.

Learning as an effort to educate students and the learning process as connecting new knowledge on cognitive structures that already include in this study. In this definition is contained in the meaning that there are learning activities select, assign, and developing optimal strategies or methods to achieve the desired learning outcomes. Strategies of delivery may also be called a learning method is a reference to the means used to convey deliver the material to students, and also to receive and respond to inputs from students [1].

Lecturer as a developer of learning media should know the difference in learning approaches in order to choose appropriate learning strategies. Learning strategies should be chosen to motivate the learners, facilitating the learning process, form a whole, serve individual differences, raise meaningful learning, encourage the onset of interaction, and facilitate learning contextual. But now we can see such assessment in the learning process itself still can not customize the lecturer lesson as expected by students as well as the curriculum is required. Not only that, sometimes lecturers can not understand what sort of student learning itself.

The selection of learning strategies is essential. The strategy applied in the activity of learning called learning strategies. The purpose of learning strategies is the attainment of efficiency and effectiveness of learning activities that do learners. The parties who engaged in learning are the educators (individuals and groups) as well as learners (individuals, groups, or communities) that interact between the educational one. Paradigm learning beliefs reflected in the learning strategies used by the lecturer in learning activities.

A problem often encountered in learning activities is a result of learning that doesn't match expectations. Many of these graduates still lack skills such as communication skills, creativity, critical thinking and analytical skills, skills in problem solving and decision making skills. Therefore, there are solid requirements of higher education to focus on training so that future graduates can tailor to the needs of the community, as well as the suitability of the skills of graduates and skills a prerequisite for future career them [2].

Similarly the achievement of student learning outcomes on nursing basic courses that is less satisfactory. The average results of the student study on basic nursing courses are less satisfying. The average value of a student on the basic nursing course in the last 3 years, i.e. by the year 2014 the average value of 62, in 2015 the average value of 64, and the year 2016 average value 65. Basic nursing courses have a very important role in nursing education nursing students form because professional nursing care, can implement so that it can resolve the problems occurred in real.

Basic Nursing course is one of a series of subjects taught in the Diploma III nursing. At this level, all students must study as the basis for medical science before taking further nursing subjects. Basic Nursing learning has three domains, namely cognitive, affective, and psychomotor that must be developed. The cognitive domain of learning related to emphasize facts, concepts and generalizations which can be obtained through secondary or source with empirical procedures involving. The affective domain is emphasized on the attitudes, values, interests, motivation of learning Basic Nursing appreciation. Psychomotor domain emphasizes physical skills necessary to carry out the tasks of the laboratory so that learning science is necessary the proper methods and in accordance with the characteristics of the basic nursing.

The success of learning among others determined by understanding the characteristics of the contents of the subject matter, the characteristics of the students, and the learning process. The right learning strategy is expected to improve the quality of learning and student can learn something by way of effective and efficient. Bloom (1976) suggested link between the characteristics of students, the quality of teaching and learning outcomes. The right learning strategy is expected to improve the quality of learning and student can learn something by way of effective and efficient [3] one of the most innovative learning strategies commonly associated with medical education is the PBL (problem based learning) [4, 5]. PBL (problem based learning) is learning with student-centered approach to methods that guide students to find the best way to solve real-world problems through group work [6].

Education methods to increase the ability of nursing students in problem solving is the problem based learning (PBL). Therefore, the way to develop students' abilities in problem solving is very important and should occupy most of the activity of the educator.

This is a challenge for the nursing education to explore ways to enhance learning and clinical decision making. So, the nurse should investigate new teaching methods that promote active learning and improve critical thinking skills for student nurses. In fact the structure of a complex with the changing health needs of the community, it is important for students to learn how to access knowledge, synthesize information, apply data into practice and committed to learning a lifetime [7].

Problem Based Learning (PBL) is the starting point of the learning process of learning based on problems in real life and from this issue stimulated students to study the problem based on the knowledge and experience they have had before so it will form new knowledge and experience. Problem based learning (PBL) is very effective for school of nursing where students faced with the problems then are required to solve it.

The purpose of this research is to know the results of the application of the concept of learning improvement in basic nursing course students before and after studying learning strategies using Problem Based Learning (PBL), and to know influence of learning strategies of Problem Based Learning (PBL) against the results of a study of the application of the concept in the basic nursing courses.

METHODS

This research uses quantitative techniques with pre-experiment research methods. The population of this research the entire semester II are the students course of study diploma III Nursing of 194 students (there are 3 parallel classes, namely class A, B, and C-grade students with a total of 65 people, 62 people, class b and class C 67 people), whereas samples in this research is partially student semester II courses diploma of Nursing III 67, sampling used was cluster random sampling.

Learning activities basic nursing courses on the subject of fulfilment oxygenation using problem based learning learning strategy performed 8 times. Before learning, students given pre test and after the learning problem based learning activities given the post test. All data were analyzed using SPSS software 20 for windows with a significant level of 5% ($\alpha = 0.05$).

RESULTS AND DISCUSSION

Results

Table-1: The results of statistical tests

One-Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
posttest	67	75,45	5,275	,644

Table 1 results of the study are obtained from the end after a learning problem based learning strategies. The amount of data retrieved from a table or

N = 67, Mean value of 75.45, standard deviation and standard error of mean 5.275 = 0644.

Table-2: Test results One-sample Test

One-Sample Test						
Test Value = 68						
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
posttest	11,557	66	,000	7,448	6,16	8,73

The table above was obtained from the results of the study end after learning problem based learning strategies. Results from the table one-sample test of the above obtained value of the sig (2-tailed) for 0.000 <

0.05 thus H0 is rejected. It can be concluded that the results of student learning using problem based learning > 67.

Table-3: Test result Statistics

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pretest	46,42	67	6,787	,829
	posttest	75,45	67	5,275	,644

The table above was obtained from the results of a study conducted before and after the end of the strategy of learning problem based learning. From table 3 obtained the amount of data or N = 67, Mean value

before pelakuan of 46.426, standard deviation and standard error of mean 6.787 = 0.829. After treatment of 75.45 mean, standard deviation and standard error of mean 5.275 = 0.644.

Table-4: Test results Paired Sample Test

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	pretest - posttest	-29,030	7,941	,970	-30,967	-27,093	-29,923	66	,000

The table above was obtained from the results of a study conducted before and after the end of the strategy of learning problem based learning. For testing on the influence of learning problem based learning strategies against the results of the study of the application of the concept of a table of paired sample test obtained significant value of 0.000 < 0.05 thus H0 is rejected. It can be concluded there is influence the learning problem based learning strategies against the results of the study of the application of the concept of students in basic nursing courses.

46.426 treatment done learning strategies problem based learning student learning outcomes become 75.45. This shows that with a strategy of learning problem based learning students get improved learning results of the application of the concept in the basic nursing courses, and the value obtained more than 67.

Based on the findings of this research show that learning strategies provide the main influences are strong against the results of the study. The results of the study include all the effects that can be used as an indicator of the value of the use of methods of learning under the condition of different learning. Learning outcomes can be tangible results (actual outcomes) and the desired results (desired outcomes) [1].

DISCUSSION

The purpose of this research is to know the results of a study of the application of the concept of nursing basic courses on the student's Diploma III Nursing before and after use of the learning strategies of problem based learning (PBL) by using the pretest and posttest, and to know the influence of learning strategies of problem based learning (PBL) against the results of the learning application draft. From the test results obtained that final learning outcomes before and after

Some of the results of research using the strategy of problem based learning (PBL) as almost all free variables indicating the results of that strategy of problem based learning (PBL) provides a better influence, either in the field or the field of nursing another. This strategy shows on average a better

learning results than other strategies. This shows that the problem based learning (PBL) provides a strong influence towards a variable is bound (the results of the study). This is in line with some research that shows the result of the nursing student with learning that using problem based learning (PBL) has the ability of critical thinking in solving problems. [8,9]. In addition the research also supports this research results, revealing that while both groups were given the learning with the same content in accordance with curriculum and instruction, group of problem based learning (PBL) is better in identifying the problem-solving strategies [10]. Other research on the effects of learning problem based learning in nursing students obtained the result that using problem based learning (PBL) has a role in developing and improving the decision-making ability of nursing students [11]. Approach to problem based learning (PBL) is believed to be as effective learning approach that encourages students to learn independently. problem based learning (PBL) is also supporting the development of critical thinking skills, leadership and teamwork. The use of problem based learning (PBL) can improve Nursing students to think critically [12]. Nursing student in order to be ready to serve as a nursing professional and competent care, they need a strong knowledge base and the ability to correlate the study into clinical practice. Students should have an understanding of how they think and make decisions [13,14].

In general the results of this research show that there are influences of strategies of learning problem based learning (PBL) against the results of a study of the application of the concept of nursing basic courses from table paired sample test obtained significant value of $0.000 < 0.05$ thus H_0 is rejected. It can be concluded there is the influence of learning strategies problem based learning (PBL) against the results of a study of the application of the concept of students in basic nursing course.

CONCLUSION

Based on research conclusions to be drawn as follows. (1) the learning strategy using Problem Based Learning (PBL), the application of the concept of learning outcomes acquired in basic nursing courses increased student Nursing Diploma III, (2) there is the influence of learning strategies Problem Based Learning (PBL) against the results of a study of the application of the concept in the basic nursing courses.

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