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IMPROVEMENT OF SOFT SKILLS THROUGH COOPERATIVE LEARNING METHOD (JIGSAW) IN COURSES OF MIDWIFERY CARE EMERGENCY ON MATERNAL AND NEONATAL

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ABSTRACT

Being a professional midwife in the future is not enough to have good hard skills, but also a good soft skill, and for students to have good soft skills, a proper learning method is required, and the lecturer has an important role in determining the learning method. The purpose of this research is to know the method of learning that can improve students' soft skills on Maternal and Neonatal Emergency Care. The method in this research is Classroom Action Research which measure soft skills of students DIII midwifery. The attributed used soft skills consisted of 15 items. The population of this research is the students of DIII Midwifery of PEMKAB Jombang Institute of Health Science semester IV who follow the Subject of care of Midwifery Emergency Maternal and Neonatal care, which are number 43 respondents. Sampling used is total sampling Method of data collection in this research is lecturers apply three kinds of learning method in 3 times meeting: conventional method, Case Based Learning and Cooperative Learning (Jigsaw). The results of this study shows that the Case Based Learning method is better than the conventional method in improving the soft skills of DIII Midwifery students., Cooperative Learning (jigsaw) is better than conventional methods in improving the soft skills of DIII midwifery students. There is no significant difference between Case Based Learning method and Cooperative Learning method (jigsaw).Thus cooperative learning is an appropriate method for midwives students because it is proven to improve students' soft skills.

Keywords: Soft Skills, Midwifery Education, Learning Methods, Conventional Model, Case Based Learning, Cooperative Learning (Jigsaw)

INTRODUCTION

Background

The education system plays an important role in shaping a midwife. To become a professional midwife, it takes not only knowledge and skills but also soft skills. Soft skills are important components that support hard skills, and in fact, good soft skills are one indicator of a person (including midwives) acceptable to work. A study conducted at the Harvard University the Carnegie Foundation and the Stanford Research Center reported that 85% of those who succeed in work are those with good soft skills, while 15% are those with good hard skills.

When designing a learning process, lecturers are often only concerned with cognitive aspects, such as assessing paper assignments, calculating scores from tests. But the ability to communicate, dare to express an opinion, appreciate the opinions of others, striving for difficulties etc. is often limited to observations that are not objective and only brief for some students who are visible. Lecturers do not see the whole and calculate with objective about student's soft skills ability.

Suitable with this, UNESCO proclaimed the existence of long life learning for every learner in order to overcome the challenges in the future. To be a learner who has the ability and passion for lifelong learning, this certainly requires the right concepts of teachers, how to grow the ability to seek, receive and analyze information. In the present and future, where information and technology have become part of everyday life, it is necessary to be able to search and review information well and rationally (Carolyn *et al.*, 2001).

In addition, in the world of education, what is learned today is not necessarily found in the future, it is because of the advancement of knowledge and technology, the students, must be prepared to face the progress of science and technology in the future. Similarly in

midwifery education, research in medicine (including one in midwifery) provides many changes to science and knowledge; this underlies a midwife in providing evidence-based care. To be able to know and examine it, the student must be designed to have good soft skills, especially is critical thinking, never give up, can cooperate with colleagues etc. The reason why soft skills is one important component that must be considered when the lecturer merangcang a learning process is because soft skills is Soft skills can be categorized as interpersonal and intrapersonal skills. Interpersonal skills are the way in which an individual can interpret feelings that arise from others, about his actions and his motivations, while intrapersonal skills relate to feelings, thoughts and emotions that come from within one self (Vijayalakshmi, 2016) Courses of Midwifery Care Emergency on Maternal and Neonatal it is one of the subjects of expertise, consisting of 4 credits conducted in semester 4. The material in the course is quite difficult; therefore it is necessary to have an appropriate method of learning to get the goal. Good cognitive, affective and psychomotor skills are indispensable in this course because it consists of 2 credits of theory and 2 credits of Practice. Therefore, researchers will conduct research on appropriate learning methods in the Course, especially in improving student Soft skills in terms of learning.

Problem

"How are the soft skills of DIII Midwifery students in the fourth semester after applying conventional learning method, Case Based Learning and Jigsaw on Courses of Midwifery Care Emergency on Maternal and Neonatal?"

Benefit

a. Can formulate a measurement instrument / instrument rubric holistic to measure student soft skills.
b. Can find the right method to improve students' soft skills through the application of the three methods.
c. Develop research in midwifery education.

RESEARCH METHODOLOGY

This research method is Classroom Action Research which measures soft skills of students D III midwifery semester IV in lecture of Maternal and Neonatal Emergency Care. The attributed used soft skills are consisted of 15 items. The population of this research is the students of DIII Midwifery PEMKAB Jombang Institute of Health Science semester IV who follow the Subject of Midwifery Care Emergency on Maternal and Neonatal which is number 43 respondents. Sampling used is the total sampling so that the total sample is entire population that is 43 respondents.

Method of data retrieval in this research is lecturers' apply of the three kinds of learning methods in 3 times meeting, first method is using approach of conventional model (Teacher Centered Learning) form of speech which is called as conventional method. Furthermore, researchers used Case Based Learning method of learning at the second meeting and Cooperative Learning (Jigsaw) at the third meeting. Case Based Learning and Jigsaw are methods with the Student Centered Learning approach, and researchers will see the results of soft skills not only compare Teacher Centered Learning and Student Centered Learning approaches but also compare the two methods in the same approach, Student Centered Learning. To deepen the discussion in this research, students also write an open description of each of the learning methods. Scoring in this research is measuring soft skills using rubric of perception scale with the following categories:

Table 1: Score of Perception Scale

Score	Description
1	Very Less
2	Less
3	Ordinary
4.	Good
5.	Very Good

The perceptual scales rubric in this study measured 15 items of soft skills component, with scoring method as shown in the table, got the lowest score was 15 and the highest score was 75. The researcher made the following ranges:

Table 2: Assessment Ranges of Soft Skills Attributes

Range	Category
15-34	Less
35-55	Enough
56-75	Good

RESULTS AND DISCUSSION

Here are the results of research by measuring soft skills in 43 students after three learning methods were given. The soft skills evaluation instrument adopts the research written by Wayan Arnata.

Table 3: Average Measurement Results of Soft skills in Classes in Each Learning Method

No	Attribute Soft Skills	Conventional Model	Student Centered Learning	
			Case Based Learning	Cooperative Learning
1	Learning Motivation	3.35	3.88	4.33
2	Critical Thinking	2.98	3.98	4.19
3	Creativity	2.79	3.84	3.95
4	Ability of analysis	3.05	4.02	3.93
5	Ability to resolve issues	3.05	4.02	3.93
6	Working together	2.86	3.91	4.51
7	Respect the opinions of others / in group	3.23	4.16	4.37
8	Able to argue with logically	3.14	3.91	3.93
9	Time management	3.30	3.44	3.72
10	Ability to conclude	3.12	3.63	3.84
11	Responsibility	3.72	3.72	4.19
12	Spirited	3.23	3.98	4.16
13	Independent	3.16	3.72	4.23
14	Have initiative	3.00	3.93	4.05
15	Reliable	2.72	3.77	4.09
16	MEAN	3.06	3.85	4.09
17	MODE	3.05	3.96	4.19
18	MEDIAN	3.05	3.88	4.09
19	MINIMAL	2.72	3.44	3.72
20	MAXIMAL	3.35	4.16	4.51

The attributes of soft skills adopted and modified from Arnata (2014). From the table, it can be seen the difference of each learning method to soft skills of students in the classroom. Of all the soft skills attributes measured, it appears that Student Centered Learning (SCL) method is better than Teacher Centered Learning (TCL). In conventional methods where learning centered on lecturers, less attributes are considered Critical Thinking, Cooperating, Creativity, Responsibility and Reliable. While for the best soft skills attribute in conventional method is Learning Motivation. This is understandable because each student has different perspectives in learning, different students' characters in one class allow for different desires in terms of learning methods. The figure of the distribution of students' soft skills frequency has given Conventional Method Figure1 Results of Soft Skills measurements on students given Conventional Method.

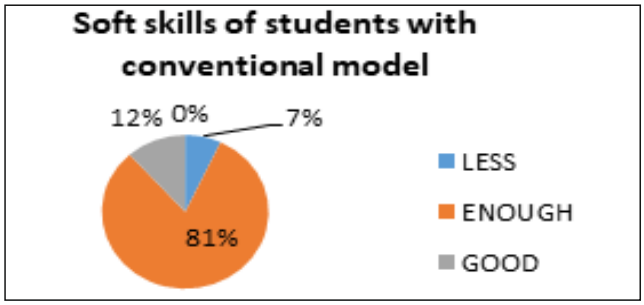

Figure1: Measurement Results Student Soft skills on Method Conventional Model

From the figure it can be seen that most students have sufficient soft skills. Although conventional methods often run in one direction, they can also affect students' soft skills, but they are individual, depending on the lecturer. Lecturer has a great function in shaping the character of students, including in terms of soft skills when using conventional methods. When using conventional methods, lecturers should be able to bring up soft skills attributes, for example "Argumentation" attribute, lecturers can give a case in the class that provokes the opinion of the students, so that argumentation will arise from some students, and this triggers others to participate in giving argumentation , while a group of other students are just listening, it may be that when they listen, it means they understand and value their friend's opinion/argument, but the shortcomings may also be that other students disagree with their friend's argument but do not dare to uncover.

There are 18 (53%) students who score 4-5 in the learning motivation category, they explained that in the conventional method the lecturers talked more, and some of the lecturers gave motivation to the students who delivered on the sidelines of the topic the lessons are presented, so that this can improve the learning motivation of some students. In addition to argumentation, lecturers should be able to maintain students' concentration within a certain time span even using conventional methods. As the lecturer's role should be that the lecturer is the person who makes the concept in learning. Lecturers must have the ability to make jokes so that students are not saturated, can provide reinforcement of some important information, and to increase student participation, lecturers can use interesting media and in accordance with learning. Thus, soft skills attributes such as the ability to analyze, express opinions, the ability to ask questions, and answer questions, can be learned by students.

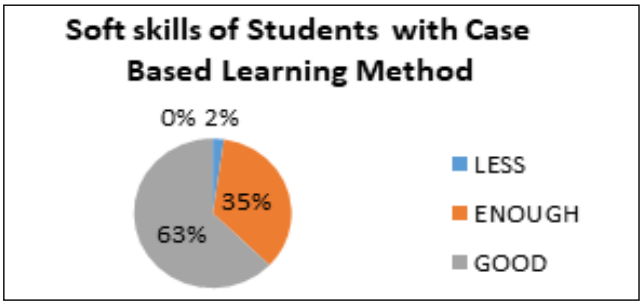

Figure2: Measurement Results Student Soft skills on Method Based Case Learning

With Case Based Learning method, most have good soft skills. In designing Case Based Learning methods, cases are factual, with complex problem structures to stimulate collaborative group fund analysis discussions, interaction with other lecturers and students, student-centered, realistic and specific situations has many advantages, i.e., students can see a real picture of a case. Case Based Learning method is a method with student-centered learning approach; in this case the student is subject in learning. Method based problem has a goal to develop problem-solving skills by way of logical thinking (Rusman, 2011). In accordance with constructivism theory that explains that students learn and form a new knowledge through various information. Everyone has the basic nature to want to know and keep trying to understand the world around him, and it is this curiosity that motivates them to constructively construct the things they meet. Thus Case Based Learning can improve students' soft skills. Students will be interested to solve the case; this means there is an attempt to problem solving, problem solving ability is necessary for a midwife can be trained to solve a problem. The advantage of this method is that students are interested in solving cases that have been made by lecturers, it is a cause of curiosity, and the effort to solve such cases through scientific thought, the ability to find information and not easily discouraged in seeking information, is soft skills that can be grown through this method. Nevertheless, there are 2% of students who feel that their soft skills are lacking, they feel the case is very long and this makes it difficult for them to understand the case.

In fact, not all students understand the setting of cases made by lecturers; students with low analytical skills take longer to understand a case and attempt to resolve the problem. Thus, it needs to be diverse in the group to keep the group discussion alive. In Case-Based Learning, the focus of learning is not just on the case, but also on the process of analysis and evaluation (Speaking of Teaching, 2001). The advantages of Case Based Learning as for the method using Cooperative Learning (Jigsaw), obtained the results as the following picture:

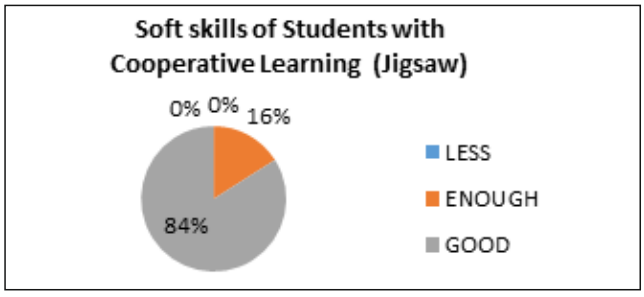

Figure 3: Measurement Results Student Soft skills on Cooperative Learning (Jigsaw)

From the figure, it can be seen that there are no students who have less soft skills ability, as much as 84% with good ability. The results of evaluation submitted by students, there are advantages of this method; each student is responsible for finding information, analyzing information, and trying to convey information to other students. Through this method the ability is obtained to learn to listen to information conveyed by friends from expert groups to be able to explain back to friends in the original group. Through discussion methods with friends, students can gain many things, perhaps because they can talk openly when their audience is a small group. (Ormrod, 2008). Every student has the same task; this is the strength of the Jigsaw method. Most students prefer the jigsaw type because they can share knowledge, work together, are able to enjoy the context and can help others (Tran & Lewis 2012).

From the statistical analysis, the data were first tested by using One-Sample Kolmogorov-Smirnov Test, with Asymp. Sig value means normal distributed data. The data were processed using Paired Samples Test to compare the results of soft skills measurement (1) between Teacher Centered Learning (lecture) with Case Based Learning method, (2) between Teacher Centered Learning method (lecture) with Jigsaw method and (3) Case Based Learning with Jigsaw method.

Table 4:Paired Samples Test

		Paired Differences					*t*	df	Sig. (2-tailed)
		Mean	Std. Dev	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Metode TCL Metode CBL	-0.581	0.587	0.089	-0.762	-0.401	-6.496	42	0.000
Pair 2	Metode TCL Metode Jigsaw	-0.791	0.514	0.078	-0.949	-0.632	-10.078	42	0.000
Pair 3	Metode CBL Metode Jigsaw	-0.209	0.514	0.078	-0.368	-0.051	-2.668	42	0.011

From the results of the above statistic test, it can be seen that between Teacher Centered Learning methods with Case Based Learning method and comparison between teacher centered learning with jigsaw, both of them got significant difference, while for Case Based Learning method with jigsaw, no significant difference was found. This shows that with student centered learning approach, both Case Based Learning and jigsaw methods, both show better results in terms of increasing soft skills. Even with more jigsaw methods that get good soft skills when compared to Case Based Learning, but statistically both methods are very feasible to use. As stated by Gestalt (field theory) theory in learning that involves social interaction such as group work aims to develop participatory skills in

community processes by developing interpersonal relationships and discovery skills in the learning process. Through group work, students will learn to understand that everyone can have different ways of thinking, even though they have the same goals. Students learn to respect differences of opinion within the group to be scientifically resolved and critical thinking skills. Arends (2008) cites the important value of Lev Vygotsky's idea of education that learning occurs through social interaction with teachers and peers. The challenge as well as the help of teachers and peers, a student will develop. By the jigsaw method, can apply the principle that the student must be an active learner, actively learning to demand every student to be physically and psychologically active. The positive attitude can be seen from how to manage the time, diligent, meticulous and eager and have great curiosity (Joyoatmojo, Renol & Indriayu, 2017).

However, each method has its drawbacks, in the context of Cooperative Learning, the drawback is the time taken long enough to discuss a discussion topic, and this can be understood because the stages for the jigsaw method are:

1. Divide groups at random.
2. Every member each group with topic to be learned.
3. Each student in the group learns to seek information from various sources (both from books and online).
4. After the information collected, each student spreads to another group to provide / exchange information.
5. Representatives from each group return to the original group and explain to the other group members.
6. All students in the group get the same information.
7. Each group presents topics received from other groups as a form of evaluation of the ability to receive and disseminate information well.
8. Each group writes completely on topics that have been studied as homework assignments.

From a series of stages in conducting Cooperative Learning, this requires a lot of time, and the lecturer must be able to determine the time at each stage so that students can complete the stage well but also not protracted. Reed (2014) recommends that lecturers should determine the right time to assess students in groups where they can work together well, it is impossible to ask every student to be perfect, but by understanding group dynamics, classroom experience, trial and error, appropriate assessment, then the teacher's expectation in developing the program is excellent for making the students optimal in group work.

CONCLUSION

The conclusions of this research are:

a. The Case-Based Learning method is better than the conventional method in improving the soft skills of DIII Midwifery students.

b. Cooperative Learning (jigsaw) is better than conventional methods in improving the soft skills of DIII midwifery students.

c. There is no significant difference between Case Based Learning method and Cooperative Learning method (jigsaw).

SUGGESTION

For a lecturer:

a) Lecturers should be able to choose the appropriate learning method and centered on the student as the main subject of learning, in this case some methods that can be used is Case Based Learning and Cooperative Learning (jigsaw).

b) Lecturers need to design a method by involving students so that the methods to be applied can be applied well by the students.

c) In applying the two methods, it must be accompanied by a learning contract, a clear task design format and clear and objective assessment format and known by the student, so that the student can try to achieve a high score.

For students:

a) Students may propose learning methods used in classroom learning.

b) Students should be more active in accessing information, and may distinguish relevant information from irrelevant to reference.

For Policy Holder:

a) It is necessary to evaluate the lecturer about the ability to design a lesson.

b) The need for stimulation for lecturers to move from conventional methods that are teacher centered learning toward student centered learning.

IMPLICATIONS

a. Case Based Learning proved good in improving student soft skills, can be applied in learning in Diploma of Midwifery.

b. Cooperative Learning (jigsaw) proved very good in improving student soft skills so it is appropriately applied in learning Diploma of Midwifery.

REFERENCES

Arends, R. (2008). *Learning to Teach*, 7th Edition, McGraw-Hill Higher Education, USA.

Arnata, I. W. & Surjoseputro, S. (2014). Evaluasi Soft Skills dalam Pembelajaran Mahasiswa Barudi Fakultas Teknologi Pertanian Universitas Udayana, *JURNAL PENDIDIKAN DAN PEMBELAJARAN*, 21(1), Pages 9.

Carolyn., Medel-Añonuevo.,Toshio., Ohsako., Werner. & Mauch. (2001).Revisiting lifelong learning for the 21st century, *Eric*, pages 36.

Joyoatmojo, S., Renol, S. & Indriayu, M. (2017). The Effect of Problem Based Learning (PBL) Model and Jigsaw Type of Cooperative Learning Model with Prezi Aid on the Students' Learning Outcome. *Advances in Social Science, Education and Humanities Research (ASSEHR)*, 158, pages 8.

Ormrod, J.E. (2008). *Educational Psycology: Developing Learners*. 6th Edition, Pearson Merrill Prentice Hall,USA.

Reed, Z.A. (2014). Collaborative Learning in the Classroom. Pages 6.

Rusman. (2011). Model-Model Pembelajaran Mengembangkan Profesionalisme Guru. Rajawali, Indonesia.

Speaking of Teaching. (2001). Problem-Based Learning. Retrieved from: http://scholar.googleusercontent.com/scholar?q=cache:GUnPexjqeAYJ:scholar.google.com/+Winter.+2001.+Speaking+of+Teaching.+ProblemBased+Learning&hl=id&as_sdt=0,5&as_vis=1

Tran, D.V. & Lewis, R. (2012).The Effects of Jigsaw Learning on Students Attitudes in a Vietnamese Higher Education Classroom. *International Journal of Higher Education*,1(2), pages 12.

Vijayalakshmi, V. (2016). Soft Skills-The Need of the Hour for Professional Competence - A Review on Interpersonal Skills and Intrapersonal Skills Theories. *International Journal of Applied Engineering Research*, 11(4), pp 2859-2864.