

Effectiveness of Using SQ4R Learning Method on Improving Student Learning Outcomes on Studies of Basic Maternity Needs in Sentral Academy of Midwifery Padangsidempuan in 2016

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Abstract - The aims of this research are to know the effectiveness of the use of learning methods SQ4R in subject study that are cognitive in improving student learning outcomes in Sentral Academy of Midwifery Padangsidempuan especially on subject study of basic maternity needs. This research is a pretest posttest with control group. The population in this study is all students of general pathway of midwifery study program, the research sample is the second semester students at Sentral Academy of Midwifery Padangsidempuan. Data were analyzed by using SPSS program with t-test and presented in tabular form. The research shows the average of student's post-test result with SQ4R learning method is 60.53 while the post-test result in the control group is 45.06. Increased student learning outcomes by using learning methods SQ4R of 309.41% and without using SQ4R 217.91% with the effectiveness of 48.12%. The result of t-test showed that the comparison of post-test result and the improvement of learning result showed a significant improvement by using SQ4R learning method ($p < 0.05$).

Keywords – Effectiveness; Learning Methods; SQ4R; Learning Outcomes.

I. INTRODUCTION

Learning is an activity that proceeds and is a very important element in the implementation of each type of education. This means that the success or failure of the achievement of educational goals is very dependent on the learning process experienced by students either at school or at home or the surrounding environment.

To achieve the goal of effective teaching and learning process, various learning development models are needed, including learning methods that are suitable to the learning needs and facilities, such as a class or a real (clinical) conducive environment.

Robinson (1970) and Fox (1962) suggest that most of the methods of reading textbooks used by students are too passive. Students simply read the book chapter, then close it or read it while underlining it casually. In this way, as Calhoun and Acocella (1990) said, the student is like a daydreaming and letting the reading pass into his mind, and

furthermore, much of the material he reads is out of his mind.

One of the methods of reading learning that can be applied is the application of learning method of reading SQ4R (Survey, Question, Read, Recite, Review and Reflect). The use of SQ4R reading method is expected to stimulate students through reading activities, love reading activities and ultimately can improve student achievement.

This model is the development of the SQ4R method by adding the Reflect element, ie the teacher's activity provides an open-ended problem related to the actual context relevant to daily life. Then the students will discuss each other with a group of friends to find solutions of these problems based on the knowledge they have gained from the read stage. The existence of problems that are open-ended, can lead to critical thinking of students and lecturers to know the extent of knowledge that has been owned by students.

SQ4R learning model is a way of reading that can develop metacognitive students, ie by assigning students to

read the study materials carefully, thoroughly, through; surveys by looking at reading texts, looking at the questions at the end of the chapter, reading the summary when available and looking at the pictures, graphics, and maps. Question is making a question (why, how and from) about reading material (learning material material). Read is reading the text and looking for answers. Reflect is an activity that provides an example of reading material and envisages the relevant actual context. Recite is considering the given answer (shared notes), and Review is a thorough reviewing.

Basic needs of maternity are one of the subjects' lessons that are conceptual. In this subject the student must know and understand what mothers need during maternity. Because childbirth is an event that will always be remembered by a mother so that during the process is expected to run in accordance with the wishes of the mother.

The aims of this study is to measure the effectiveness of the use of SQ4R learning methods to improve student learning outcomes on maternity basic needs subject study.

Knowing the result of post-test using SQ4R learning method on maternity basic needs subject study. Know the effectiveness of the use of learning methods SQ4R on maternity basic needs subject study. Comparing student learning outcomes using SQ4R learning methods and without using SQ4R learning methods on maternity basic needs subject study at the Sentral Academy of Midwifery Padangsidempuan in 2016.

II. RESEARCH METHODS

This research used pre-test post-test method with control group by pre-test and post-test in study group using SQ4R method and without using SQ4R learning method as comparison group. Conducted pre-test in group A (using SQ4R learning method) and group B (without SQ4R learning method) to ensure the comparability of both groups and to find out the extent of their knowledge about basic maternity needs subject study.

III. RESULTS AND DISCUSSION

A. Research Result

Table 1. Results of post-test of students with SQ4R learning method and without SQ4R learning method

	Score of Pre-test		Score of Post-test	
	Σ	Average	Σ	Average
SQ4R	340	14.78	1392	60.52
Without SQ4R	312	14.18	992	45.06

From the table above can be seen that average score of pre-test students with SQ4R learning methods is 14.78 and almost the same as students without using SQ4R learning method is 14.18, while average post-test students increased

to 60.52 in students using SQ4R learning methods and 45.09 on students who do not use SQ4R learning method.

Table 2. Effectiveness of use of SQ4R learning methods

	Average Improved of Learning Outcomes	%	Percentage of effectiveness of learning methods (%)
SQ4R	45.74	309.41	48.12
Without SQ4R	30.88	217.95	

From table above can be seen that the improvement of student learning outcomes using SQ4R learning method is 309.41% while the increase in student learning outcomes without using SQ4R method of learning is equal to

217.95%. This shows that the use of SQ4R method is more effective at 48.12% to improve student learning outcomes.

Table. 3. Comparison of student learning outcomes with SQ4R learning methods and without using SQ4R learning method

Learning Methods	Average of Pre-test	Average of Post-test	Improved of Learning Outcomes
SQ4R	14.78 ± 11.905	60.52 ± 13.118	45.74 ± 16.485
Without SQ4R	14.18 ± 10.083	45.09 ± 9.656	30.91 ± 10.488
“t” Value	0.182	4.477	3.852
“t” Table	2.02	2.02	2.02
Sig.	0.856	0.00	0.01
α	0.05	0.05	0.05

The average pre-test of students using SQ4R learning method obtained a score of 14.78 ± 11.905 while the average pre-test of students in the comparison group obtained a value of 14.18 ± 10.083 . The result of statistical test from both group average is got t value = $0.182 < t$ table = 2.02. This means that there is no significant difference between the average pre-test of students with SQ4R learning method and without using SQ4R learning method or in other words the average initial knowledge of students used as a sample is not statistically different, so that the requirement of research fulfilled and both groups can be compared.

The average post-test score of students using SQ4R learning method is 60.52 ± 13.118 , while students who do not use SQ4R learning method get 45.09 ± 9.656 . The result of statistical test on both group average is found that t value = $4.477 > t$ table = 2.02. This means that there is a significant difference ($p < 0.05$) between the average post-test of students with SQ4R learning method without using SQ4R method, or in other words student learning outcomes after intervention increased significantly ($p < 0.05$) with students who were not given intervention.

The average increase on learning outcomes in the SQ4R learning model group was 45.74 ± 16.485 and the improvement of student learning outcomes in the comparison group was 30.91 ± 10.488 . The result of the statistical test from the average of the increase of learning outcomes of both groups was obtained by calculating the t value = $3.852 > t$ table 2.02. This means that learning outcomes with the SQ4R learning method increased significantly ($p < 0.05$) compared with without using the SQ4R learning method. In other words, the improvement of student learning outcomes using SQ4R learning method is better than the students who do not use SQ4R learning method, so it can be concluded that the learning method SQ4R more effective.

IV. DISCUSSION

A. Results of post-test of students with SQ4R learning methods and without SQ4R learning method

The average of post-test score of students increased to 60.52 in students using SQ4R and 45.09 in students who did not use the SQ4R learning method.

According to Magnesen (1983), we learn to get 10% of what we read, 20% of what we hear, 30% of what we see, 50% of what we see and hear, 70% of what we say, 90 % of what we say and do. This means that by doing the process of learning actively students will get more results from the learning process it does.

SQ4R learning model is a way of reading that can develop metacognitive students, ie by assigning students to read the study materials carefully, thoroughly, through: surveys by looking at reading texts, looking at the questions at the end of the chapter, reading the summary when available and looking at the pictures, graphics, and maps. Question by making a question (why, how and from) about reading material (learning material), Read by reading the text and looking for answers. Reflect is the activity of giving examples of reading material and imagining the relevant actual context, Recite is considering the answers given (joint notes) and Review that is how to thoroughly review (Ngalimun, 2012: 171).

B. Effectiveness of using SQ4R learning methods

The improvement of student learning outcomes using SQ4R learning method is 309.41% while the improvement of student learning outcomes without using SQ4R learning method is 217.95%. This shows that the use of SQ4R method is more effective at 48.12% to improve student learning outcomes.

SQ4R method is much more effective when compared with without using SQ4R method because this method has

systematic steps in the implementation so that student can better comprehend the learning material given.

The SQ4R method consists of six steps: Survey, Question, Read, Reflect, Recite, and Review. The six steps each have mutually supportive benefits. The benefit is that learners are encouraged to predict, ask, read, model, recite and repeat reading material to be understood and mastered in their own way.

This method also aims to equip learners with a systematic approach to the types of reading. These objectives reflect provisions for the need to improve the systematic, effective, and efficient way of learning.

C. Comparison of student learning outcomes with SQ4R learning methods and without using SQ4R learning method

The result of statistical test on average of learning result of SQ4R learning method and without using SQ4R learning method is $t \text{ value} = 3.852 > t \text{ table } 2.02$. This means that there is a significant difference between the average increase in student learning outcomes with SQ4R learning methods and without SQ4R learning method or in other words the average knowledge of students after the intervention is different statistically.

From the test results indicate that there are significant differences in results by using the method of learning SQ4R in improving student learning outcomes. Students who do not get SQ4R method of learning results do not increase rapidly as a result of student learning that get method of learning SQ4R.

Each teaching seeks to deliver effective information from the teacher to the students, so as to obtain a good learning process. Students can follow and understand what the teacher is saying as well as the teacher can effectively convey information appropriately, quickly and easily with maximum results.

This method consists of six steps: Survey, Question, Read, Reflect, Recite, and Review. The six steps each have mutually supportive benefits. Reading by using SQ4R is considered more satisfying, because with this method can encourage a person to better understand what they reads, directed to the essence or the main content that is implied and written in a book or text. In addition, the steps taken in this method seem to have described the scientific procedure, so it is expected that any information learned can be stored properly in a long-term memory system so that someone can improve student learning outcomes.

V. CONCLUSIONS

From the results of this study it can be concluded that the use of learning method SQ4R more effective (48.12%) to improve student learning outcomes on maternal basic needs materials in the Sentral Academy of Midwifery Padangsidempuan in 2016.

Seeing the effectiveness of the increase in learning outcomes is large enough after students use SQ4R learning methods and there are significant differences between groups with SQ4R learning methods and without SQ4R learning method, it is recommended that this method of learning SQ4R good used as one of the methods of learning that can be applied by students in studying the subject matter in the cognitive domain at the Sentral Academy of Midwifery as well as in other Institutions.

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