The Effect of Learning Journal Assignment Towards Student's Learning Outcome in Basic Nursing Subject

Ita A. Jariyah[1,*] Nailil Inayah[2]

[1]*Faculty of Science and Technology, State Islamic University of Sunan Ampel Surabaya, Indonesia*
[2]*Faculty of Science Education and Teacher Training, State Islamic University of Sunan Ampel Surabaya, Indonesia*
Corresponding author. Email: itaainunjariyah@gmail.com

ABSTRACT

Learning Journal is one of communication tool for students in learning, in order that lecturer was being able to identify the student's learning outcome so far. Besides, it was able to enhance student's understanding which was expected to enhance the learning outcome. The student's understanding was attained by the process of getting knowledges, learning experiences and improving the skills in order to master the subject comprehensively. One of the learning experience is writing learning journal. Therefore, the purpose of this research was to know the effect of assigning learning journal toward student learning outcome in Basic Nursing subject. The research design was quasi-experimental using postest-only control. Based on the independent sample t-test (0,00< 0,05), it can be concluded that: 1) there was significant difference between student's learning outcome of experimental and control group; 2) the average of student's learning outcome of experimental group was 70,13 greater than the control one (60,59). The experiment group with assignment of constructing learning journal has been proven to get higher learning outcome than the control one.

Keywords: Learning journal, Learning outcome, Basic nursing subject.

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1. INTRODUCTION

Teaching is a complex human effort with many values and human factors are involved. It is very important because teaching is an attempts to form good human beings. Teaching failure can destroy a generation of society [1]. Therefore, teaching must be well-planned. Mastery of material that has been delivered by the teacher is one of success factor in teaching learning process. The subject matter itself is knowledge that comes from the subject given at school. Meanwhile, subject are past human experiences that are arranged systematically and logically described in textbooks which is the content must be mastered by students. Therefore, the criteria for success are determined by mastery level of subject matter. The evaluation tool used is usually a written learning outcome test which is carried out periodically [2].

Learning Outcomes are abilities obtained by students after going through the teaching and learning process. Students are stated to be successful in learning if they can achieve learning goals or instructional goals [3]. Learning outcomes are a process to determine student learning outcomes through assessment activities or measurement. Learning outcomes can be used to determine the level of student's success after participating in a learning process, where the success rate is indicated by a value scale in the form of letters or words or symbols [4]. One of the factor to enhance learning outcome is the teacher's appropriateness in determining and applying learning method for either classroom or take home assigments. Ai-min & Jian-Qiang stated that difficulties of assignments are one of important factor that giving effects in cooperative learning processes [5]. According to Nasution in Ningrum, assigning is a way to present the learning material by giving the task to the students to be learned then deserving responsibility in front of class. Thus, enhancing students understanding [6].

The assignment method is a way to teach which is done by giving activities to students in the form of assignments to be done outside of class hours. The implementation can be at home, in the library, and others which the results can be accounted for [7]. The assignment is carried out with the aim of solving a particular problem or measuring the success of particular process [8]. The assignment method is very suitable to manage a lot of learning material while taking a little time. The purpose of giving assignments to students is to make students learn more steadily, become a new experience for students, making learning become more integrated, enriching student's knowledge and skills in schools so that they can increase initiative and responsibility [9].

Based on the field study of Basic Nursing learning in Stikes Bina Sehat PPNI Mojokerto, the student's learning outcome was need to be enhanced and student's problem was the difficulties in delivering the question verbally. Therefore, it seems to be hard for teachers identifying student's masterizing level. If there were some of learning material haven't been masterized well by means they weren't understand, the low would be achieved. This condition encourages writers to conduct research about the effect of assigning learning journal toward student learning outcome in Basic Nursing subject. The assignment choosen was writing learning journal that overwhelming to write the masterized materials, non-masterized materials, compose questions in line with the topic, construct reshume and self-reflection to be solved. Teacher examined the journal regularly and made a review of the non-masterized material in the next meeting.

Basicly, learning journal is a reflection tool relates to the task, learning material, and course questioning. Students make self-development plan relates to academic experiences. The rich academic experiences developes aspiration in career [10]. By writing reflective journals, students can enhance their private and professional development [11]. Learning journal encourages self-reflection professionally, analysis, planning and evaluation which help students to syntesize knowledge and reflect the effect in learning and self-experiences [12]. Learning Journal is an efficient method to enhance self-learning strategy. As students writing learning journal, they're trying to organize previous information to be whole unit then integrates it to their prior knowledge [13].

Learning journal is the written notes relates to learning that can be integral part of teaching-learning programmes. It encourages students to study by their own bymeans to be a self-learner. The research showed that learning journal tend to gain metacognitif achievement and reflection thinking skills. Students were able to be aware of their self-thinking processes [14]. Learning journal writing is done as a result of reflection during learning. The teacher checks the learning journal to find out the student's response to the learning activities based on the completeness, grammar, and suitability of the journal content with the learning activities carried out [15]. The use of learning journal is proven to motivate students to reflect what happened and what they learned in the class [16]. In journal writing, the teacher has an important role to assist students because they aren't let to write the journal by their own in order to be tools of reflection and learning [17].

Learning journal is a student's written report relates to idea, thinking, personal experiences, results, responses, feelings, perceptions or reflection of occasion in learning. The journal gives many advantages in learning, allow chances to reflects the development of their skills achievement time by time. It also has role as a media for students to deliver problems to the teacher directly [18]. When writing a learning journal, students can think and show their analysis based on experiences that have occurred and were observed during the learning process. The ideas obtained by students do not only come from reality, but also from their fantasies and imaginations. The results of writing a learning journal indicate that there is an increase in creativity and provides opportunities for students to write texts and express ideas in an organized topic [19]. Some students also use learning journals to express their emotions freely [17].

Lee analyzed the reflection based on the depth of the processes involved. There are three level of depth. The first level is "remembering", where someone describes, remembers, interprets a problem /situation/experience based on his own perception without looking for the alternative explanations and attempts to imitate someone he observes or teaches. The second level is "rasionalization", where someone looks for connection between different parts of the experience. The third level is "reflectivity", where someone approaches his own experience with a view to change or improve understanding of a future problem or situation, analyzing the problem/situation/experience from multiple perspectives and realizing the effects of these diverse perspectives [20]. According to Andriyani & Indra research, the result showed that research subject recognized the positive effects of using learning journal (100%). As much as 95, 65% students had positive opinion and feelingtoward learning journal writing. According to students, writing learning journal was fascilitating them to do self-reflection, memorize learning material, aware of gaining achievement and understanding, motivate self-achievement and knowledge [18].

Jado's research found that learning journals help students analyze main ideas and relate them to future learning situations. Learning journals also improve student's skills in using the practical application of journals in different learning situation. This can help students generate more knowledge through discussing, analyzing, and connecting one idea to another. The practical application of learning journals can enhance student's reflective thinking by generating more knowledge and reflective dialogue. Furthermore, using reflective thinking will help students to improve reflective planning [21]. Mahlanze & Sibia's research shows that students are comfortable writing their feelings in reflective journals. But students need to trust the person who will read their reflective journal. When providing feedback, teachers should be aware of comments given to students in order to encourage the freedom to express their personal feelings. Permition from students to convey personal and sensitive information must be obtained. This can serve as an opportunity for counseling and should be used with caution by teachers [11]. There were activities to write the reshume so the teacher was getting information relates to student's confusion and misunderstanding, the error of making graphs, using symbol, punctuation and capital letters [22].

2. METHODS

2.1. *Research Method and Design*

This research was experimental quasi with *posttest-only control design*. Quasi-experiment is the development of true experiment which is difficult to implement in educational research. This type of research is used because it is not possible to control all the variables in the study [23]. The purpose of a quasi-experimental is to obtain information that is an approximation to information that can be obtained by true experimentation under conditions where it is not possible to control and/or manipulate all relevant variables. Researchers must clearly understand what compromises existing in their internal and external validity's design and act within its limitations [24].

Table 1. Homogenity test of learning outcome

Learning outcome	Levene Statistic	df1	df2	Sig.
Based on mean	2,972	1	62	0,090

In this study, students wrote learning journals at each meeting during one semester and being accumulated in the form of portfolio. The componets of the learning journal determined by the researchers consist of: 1) individual identity; 2) reshume of subject matter; 3) masterizing materials; 4) non-masterizing material; 5) reflection questions including lecture obstacles and problems, steps to solve the problems and student impressions related to learning strategies, observations, understandings, and their feelings toward the lecture materials.

2.2. *Research Subjects*

The subject was nursing acadey students in the first semester of 2018/2019 at the college of STIKes Bina Sehat PPNI Mojokerto. This subject was chosen because based on observations it is known that the value of learning outcomes is still low, the asking skills and habits in class haven't been formed yet, students tend to be passive.

2.3. *Data Analysis*

There were two groups of research. The first group was the experiment group given a task relates to learning journal including making a reshume. The second one was control group given a task to make a reshume only. The learning model for the two group was same, cooperative model of class discussion. The data was posttest to be prerequisites tested and analized by using independent sample t test to know the differences between the two groups.

3. RESULTS AND DISCUSSION

Prerequisites test of homogenity and normality was conducted early to the posttest data. The results of homogenity test of the 2 groups was shown in Table 1. It was known from the Table 1 that the significant of homogenity test was 0,09. It was greater than 0,05 (trust level of 95%), so it can be concluded that the student's learning outcome has the same varians (homogen). The

Table 2. Normality Test of *Kolmogorov-Smirnov*

Class	Statistic	df	Sig.
A (Experiment)	0,121	32	0,200
B (Control)	0,135	32	0,145

next prerequisites test was data normality, statistical test of Kolmogorov-Smirnov by using SPSS 26 for Windows. The result was shown in Table 2.

The normality test of student's learning outcome in Table 2 shows that significancy level of experiment group was 0,200 and the control one was 0, 145. Both is greater than 0,05 so it can be concluded that student's learning outcome in the two groups were normally distributed. The hypothesis test was using independent sample t-test, and the results was shown in Table 3.

Table 3. The result of Independent sample t-test Learning outcome Data

	Levene's Test for of Equality Variances		T-test for Equality of Means							
	F	Sig.	t	df	Sig (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
								Lower	Upper
Equal variances assumed	2,972	0,090	4,030	62	0,000	9,531	2,365	4,803	14,259
Equal variances not assumed				60,176		9,531	2,365	4,801	14,262

Table 3 described that significancy level was 0,000 fewer than 0,05 so it can be concluded that the learning outcome between experiment and control group were significantly different. The analysis result by using independent sample t-test is supported by the

Table. 4 Descriptive Statistical Result of Student's Learning outcome

Class	N	Max	Min	Mean	Std. Dev	Variance
A (Experiment)	32	83	78	70,13	8,598	73,919
B (Control)	32	48	44	60,59	10,251	105,08

descriptive statistical analysis result shown in Table 4.

The result shows that there was significantly difference between experiment and control group of student's learning outcome in Basic Nursing subject. The experiment group had the average mark of academic achievement of 70,13 which is higher than control group 60,59. The experiment group with assignment of constructing learning journal has been proven to get higher learning outcome than the control one.

According to Park, he wrote that learning journal has some positive effects for students; (1) ownership, by writing learning journal students are expected to have their self-regulated learning and responsibility; (2) awareness of learning, the responsibility they have would help them to be more aware relates to how they learn. By doing reflection in learning journal, it encourages students to thinks carefully about how they learn and how it affects them; (3)self-confidence, some students reported that writing journal increases their self-confidence; (4) regular reading; writing journal constructs habit of regular reading as a need; (5) focus on the whole course, have to do more reading, write learning reflection, make material reshume and review antecedent

materials are activities which is making students need more focus than usual condition; (6) Engagement with the material, there is no doubt that one of the advantage of journal approach is the way to engage students in learning material; (7) reflectivity, the consequence appears to students after making journal is having more reflectif attitude. The more positive effects of asssigning learning journal implicates in enhancing student's learning outcome [25].

Based on Moon, some of learning journal function are to: (1) records experiences; (2) fascilitates learning from experiences; (3) supports understanding and representation; (4) enhances critical thinking and attitude of asking; (5) enhances metacognitive; (6) increases active engagement in learning (7) promotes reflective thinking skills; (8) enhances problem solving skills; (9) as assessment tools in formal education; (10) improves reflective practice; (11) personal development and self-empowerment (12) as a way to behavioral change; (13) increases creativity; (14) enhances writing skills; (15) gives idea of self-expression; (16) supports communication and reflective interaction in group; (17) supports planning and progress in research or project; (18) as a communication tool between students to other [26].

Learning journal provides recording of student learning experiences in the form of notes. This can help students in remembering materials, especially in Basic Nursing Subject since the material characteristics are dominated with theories and need memorization. Based on the observation result, it can be known that students tend to reluctant to ask so the student's understanding cannot be detected by lecturer. It is important to know how far student's uderstanding because of the relation with student's learning outcome. Furthermore, if students do not deliver material they don't understand yet, it was

going to be difficulties to improve the achievement. By using learning journal, lecturer were able to identify the student's understanding and their difficulties. Besides, learning journal as the reflection tools for students as well as communication tool between students and lecturer to plan their self-improvement.

Communication between teachers and students is not limited to the exchange of knowledge, but also ideas and emotions. Through interaction, they can accept and integrate with each other, making the teaching-learning process easier [27]. Writing a learning journal is a form of written communication for students to lecturers. Moreover, learning journal as a communication tools between students and lecturer is used to identify the difficulties in learning to be reflected, so lectures are able to review the matter that has not been understood yet in the last meeting. Finally, this lecture's feedback was expected to enhances student's learning outcome.

Learning journal is not only train writing skills in a structured manner, but it's also able to practice active questioning. This is because in the learning journal students were asked to write questions in their own journal so that students with low self-confidence are not constrained in submitting questions verbally. In fact, thus students become more confident in writing their questions and emotions. Learning journal fascilitates reflective learning that helps students overcome negative emotions such as anxiety and disappoinment [28].

Asking question allows students to be creative in designing ways to solve problems [29]. Scientist begin their work with questions. It means that asking questions is the birthplace of ideas. The learning journal in this study fascilitates creative thinking in the way of asking questions, packaging journal portfolios, and generating new ideas in expressing their emotions into the journal.

In learning journal, students not only express questions or difficult materials but also express feelings, obstacles and the efforts they have made to constantly improve themselves, so that students' ideas and emotions are conveyed to the lecturer as reflection and improve the next learning process.

One of learning journal function is support understanding. This is because in writing learning journal students were asked to build reshume, make questions based on the matter has been learned, reflects learning process about their understanding. Writing learning journal enhances student's understanding in the way they have to reread the subject, thus enhances the student's learning outcome [26]. Learning journal is a strategy that helps students to reflect on their learning. This means that learning journals are not only presented descriptively as notes about what has been done, but learning journals can also provide changes and transfer knowledge because students must write down what they have learned in the form of reshume so that there is a process in recalling and repeating the material. This can support the improvement of students learning outcomes.

Research by Al Rawahi & Al Balushi shows that by writing a learning journal the experimental group score is greater than the control one in terms of improving self-regulation strategies because students do reflection activities. Self-reflection is carried out both in terms of achieving learning objectives, learning strategies, observations, understandings, feelings and communication with oneself and others [30]. Reflection activities carried out in writing learning journals support students to improve their learning process so that learning outcomes can be further improved. Learning outcomes need to be improved because it is an important part of measuring the success of the learning process that has been carried out. The better learning process, the better student learning outcomes.

Based on Lang, students were asked to reflect on their learning every two weeks, allowing for the practice of metacognition assisted by continous self-improvement can enhance their metacognition and motivation [31]. According to Fung, independent learning is not automatic but students need an effective tools to scaffold the use of self-learning strategies while studying. Learning journals must contain certain instructions that can help students to reflect effectively. Thus, students become effective self-learners [32].

In learning using the learning journal, students are also trained to have problem solving skills which is very important in the 21st century. It can be seen from the journal's reflective questions in providing solutions to the problems or difficulties they are experiencing. Students solve the problems and obstacles of this lecture in various ways including discussion with partner, making small study group, looking for additional references, making concept maps and so on. Thus, students' self efficacy also increases along with the reflective process that occurs in learning.

Based on the identification of students, writing a learning journal doesn't fully provide consistent benefit. Learning journals can function effectively when teachers provide feedback to students about the substance of their journals. Feedback will help students identify their strengths and weaknesses in writing a learning journal [21]. Learning journal fascilitates change by means when students are encouraged to reflect on their learning by writing journal, they are able to set their own goals and monitor the achievement by their own then possibly leading to change their study habits, strategies, insights, perspectives or others [26].

4. CONCLUSION

The conclusion from this research was that analysis result using independent sample t-tes 0,00 smaller than 0,05. This mean that there was a different learning outcome between experiment and control group. The experiment group had mean of learning outcome of 70,13 was more than control group of 60,59. The result showed

that using learning journal assignment has an effect to enhances student's learning outcome in basic nursing subject. The use of learning journals can be used as an alternative for teachers to give assignments to students as a written communication tool so that teachers can find out the extent of student knowledge. In addition, the use of learning journals can also improve learning outcomes. However, it is necessary to pay attention to whether students write their learning journals seriously and the teacher must also provide feedback to the student learning journals that have been made. The study of learning journal can be developed by implementing it on the other subject to identify the effects on the other aspects. It also recommends to integrate ICT in making learning journal such as in the form of e-learning journal.

AUTHORS CONTRIBUTION

All authors conceived and designed this study. All authors contributed to the process of revising the manuscript, and at the end all authors have approved the final version of this manuscript.

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