International Journal for Educational and Vocational Studies
Vol. 1, No. 3, July 2019, pp. 184-188
Available online at http://ojs.unimal.ac.id/index.php/ijevs
DOI: https://doi.org/10.29103/ijevs.v1i3.1591
Research Article
E-ISSN: 2684-6950

Effectiveness of the Superitem Learning Model on Students Learning Achievements

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How to Cite: Ikawati, H.,D., Majid, I., A., & Anwar, Z. (2019). Effectiveness of The Superitem Learning Model on Students Learning Achievements, *International Journal for Educational and Vocational Studies, 1* (3), 184-188.

ARTICLE HISTORY

Received: 5 May 2019
Revised: 28 June 2019
Accepted: 22 July 2019

KEYWORDS

Learning Model
Innovation and Diffusion
Learning Outcomes

ABSTRACT

Student activeness in class is one of the important factors that influence student learning outcomes. This activity can be influenced by several factors one of the learning models used by lecturers. The lack of variations in the learning model has an impact on the monotonous learning process so that students are easily bored and bored with the learning process. Therefore, lecturers are always required to create an interesting learning condition process, including by applying a varied learning model. There are several learning models that can be used by lecturers to improve student learning outcomes, one of which is to implement super-learning learning models. The purpose of this study was to determine the effect of super-learning models on student learning outcomes in the course of the Diffusion of Educational Innovation. The population of this study is all Education Technology students who have programmed the Education Innovation Diffusion course in the even semester of the 2018/2019 academic year. Data collection techniques used tests to determine the differences in student learning outcomes before and after the super-learning learning model was used-data analysis using t-test formula. Based on the results of the study it is known that the results of the t-test show the value of t-count greater than t-table at a significance level of 5% with db = 30-1 = 29 (12,963 > 2,045). Based on the results of the calculation it can be concluded that it can be concluded, there is the influence of the Superitem learning model on student learning outcomes in the educational innovation diffusion course in Education Technology Study Program Mataram IKIP academic year 2018/2019.

1. INTRODUCTION

In teaching and learning activities there is a process of communication between lecturers and students. The task of lecturers as facilitators of learning is to bridge students in absorbing knowledge. The learning process is said to be successful if students are able to achieve the expected competencies of science and provide positive values on student learning outcomes. To achieve this, lecturers are expected to be able to create effective learning conditions. Therefore educator professionalism is needed in the learning process, classroom management, use of learning resources, learning models, and effective learning methods in creating an interaction in the form of active and educative communication in the teaching and learning process.

Diffusion of Educational Innovation is an important media for the development of science in the world of education. Included in the world of Indonesian education, Diffusion of Educational Innovation is one of the compulsory subjects in the Education Technology Study --- Program of the IKIP Mataram FIP, therefore the learning of Diffusion of Educational Innovation must always be improved in quality by using learning models that can facilitate lecturers to convey subject matter and facilitate students to understand material received.

The learning model is one of the important components in learning. Effective learning models will be very helpful in the learning process, so that learning objectives will be more easily achieved. In addition, the learning model can also provide useful information for students in the learning process. The learning model is a general pattern of learning behavior to achieve the expected learning goals.

The learning model is a plan or pattern that can be used to shape the curriculum (long-term learning plan), design learning materials, and guide learning in the classroom or others (Rusman, 2012: 133).

The learning model is a form of learning that is illustrated from beginning to end which is presented

specifically by the lecturer. In other words, the learning model is a wrapper or frame of application of an approach, method, strategy, and learning technique (Helmiati, 2012: 19). Related to the learning model is a form of learning illustrated from the beginning to the end, another source is Trianto, in a source, that the learning model is a plan or pattern used as a guide in planning classroom learning or tutorial learning (Afandi et al. 2013: 15)

Based on the description of some of these sources, conclude that the learning model is a plan to plan classroom learning which is a frame of the application of an approach, method, strategy, and learning techniques.

Learning outcomes are abilities after evaluation. Where evaluation is a process to determine the extent to which abilities achieved by students in learning. Along with the realization of the learning process, learning outcomes are the most important part of learning. Learning outcomes are a manifestation of student achievement as a symbol of educational success in learning (Yaumi, 2013: 181). Learning outcomes are said to be successful, if specific instructional goals can be achieved by students. Because the success of learning can be assessed from changes in behavior from before and after gaining learning experience. The results of learning are a number of experiences obtained by students that include cognitive, affective and psychomotor (Rusman, 2017: 129). The results of learning are reflecting goals at a certain level successfully achieved by students (students) expressed by numbers or letters. The intended learning outcome is the value of the ability of students after evaluation as an embodiment of efforts that have been made during the teaching and learning process takes place (Sudjana, 2017: 3). From the description, it can be concluded that learning outcomes are changes in student behavior in the form of ability values after evaluation as a manifestation of student achievement in learning which includes cognitive, affective and psychomotor aspects.

In connection with this, one step is that an educator can create a class atmosphere that is not monotonous, more active and certainly can also improve student learning outcomes, namely by choosing and developing learning models. The model solution offered so that the learning process is not too monotonous namely by using the Superitem learning model. Superitem learning model is a learning method by giving assignments to students in stages and gradually from simple to complex

Lestari and Yudhanegara (2015: 43) Argued that the super-learning model is a learning model in the form of solving problems by giving assignments to students in stages and gradually from simple to complex. While Suyatno (2009: 77) argues that the Superitem learning model is a learning model by giving assignments to students in stages or gradually from simple to complex, in the form of problem solving. Superitem is learning by giving assignments to students in stages from simple to complex, in the form of solving the problem (Herdian, 2009). So based on that opinion, the super-learning model is a type of cooperative learning that starts from a simple and increasing task on a more complex one by paying attention to the individual stages of students and the Superitem model designed to help students understand the relationship between concepts and can help stimulate student maturity.

2. METHODS

The research design used in this study was one-group pretest-posttest design, which was a research design carried out in only one group without a comparison group. Where, will be given a pre-test or initial test, treatment or treatment, and the final post-test or test. This is done to find out how students' knowledge or understanding of the subject matter before and after being given treatment. So, it can be seen how influential the application of the Supervisory learning model to student learning outcomes is described as follows:

$$O_1 \times O_2$$

Figure 1. Research Design

Information :

O1 = Pre-test

O2 = Post-test

X = Treatment (Sugiyono, 2017: 111).

In this study, besides using methods, it is also necessary to choose the right data collection techniques and tools to obtain objective data. Related to data collection techniques, this study uses techniques, as follows:

1. Test

Mukhtar and Iskandar (2011: 257) argue that the test is a tool for conducting research in the form of assignments or a series of tasks that must be done by students or groups of students so as to produce a value about children's behavior or achievements. Whereas according to (Uno, 2012: 111) Test is a set of stimuli (stimulus) that are given to someone with the intention to get answers that can be used as the basis for setting a score of numbers.

2. Documentation

Documentation is a way of collecting data through written relics, such as archives and including books about opinions, theories, arguments or laws and others related to research problems (Margono, 2010: 181).

This documentation is done to obtain data in achieving the goal. Documentation is intended to obtain data directly from the research site, including relevant books, regulations, activity reports, photographs, documentary films, research relevant data (Riduwan, 2013: 31). While according to (Arikunto, 2010: 274) argues that

documentation is looking for data on things or variables in the form of notes, transcripts, books, newspapers, magazines, inscriptions, minutes of meetings, briefs, agendas, and so on.

3. Observation

Observation is an observation or technique carried out by conducting a careful observation and systematic recording. According to Sudaryono (2016: 87) argues that observations are activities that make observations directly to the object of research to take a close look at the activities carried out. While Arikunto (2010: 199) states that observations include activities of paying attention to an object by using all senses. Observation or observation as a valuation tool is widely used to measure individual behavior or the process of occurrence of observable activities (Sudjana, 2017: 84).

4. Interview

In a study, interviews were also needed. Because without interviews, you will certainly not get information related to what will be studied. Yusuf (2015: 108) argues that interviews are a process of interaction with face-to-face conversations between interviewers and interviewees. Other experts argue that interviews are a means of gathering information by asking a number of questions verbally to answer verbally too (Margono, 2010: 165). Other experts emphasize that the interview is a way of collecting data used to obtain information directly from the source (Sudaryono, 2016: 82).

Data analysis is done as an effort or a way to process data into information so that the characteristics of the data are understood and used to solve problems, especially problems related to research. Sugiyono (2010: 207) Explains that data analysis is an effort or a way to process data into information so that the characteristics of the data can be understood and are useful for solving problems, especially problems related to research. Data analysis techniques in quantitative research are activities after data from all respondents or other data sources are collected. The data analysis technique in quantitative research is using statistics. The formulas used in this study are as follows:

T-test formula

$$t = \frac{Md}{\sqrt{\frac{\sum x^2 d}{N(N-1)}}}$$

(Suharsimi, 2010: 350)

Information:

Md = Mean of deviation (d) between pre-test and post-test.

Xd = Difference in deviation with mean deviation.

N = Number of subjects.

df = N-1

t = Significance level ("t" test)

3. RESULTS AND DISCUSSION

Mean values from the effect of the seed extraction treatment to parameter of moisture content, germination percentage, normal seedling dry weight, maximum growth potency, and vigor index described on Table 1. In this study the population is all students who have programmed the Education Innovation Diffusion course in the even semester of the Education technology study program IKIP Mataram in the 2018/2019 academic year totaling 1 class, 30 students in total. Table.2. Student value data pre-test and post-test Subjects of Education Innovation Diffusion. In accordance with the formula used, the work table that will be used is a work table for testing hypotheses which can be presented in table 1.

Table 1. Testing hypotheses

No	Student Code	*Pre-test*	*Post-test*	$d(X_2-X_1)$	Xd(d-Md)	X^2d
1	AN	12	14	2	-2.9	8.41
2	Ai	14	18	4	-0.9	0.81
3	FH	13	18	5	0.1	0.01
4	IN	8	12	4	-0.9	0.81
5	MR	12	15	3	-1.9	3.61
6	MH	7	13	6	1.1	1.21
7	MRI	10	16	6	1.1	1.21
8	NI	8	15	7	2.1	4.41
9	NF	14	17	3	-1.9	3.61
10	RH	10	16	6	1.1	1.21
11	RA	11	18	7	2.1	4.41
12	RR	8	14	6	1.1	1.21
13	SE	11	14	3	-1.9	3.61
14	Si	13	17	4	-0.9	0.81
15	Zi	10	16	6	1.1	1.21
16	Aa	15	18	3	-1.9	3.61
17	AA	6	15	9	4.1	16.81
18	AI	13	18	5	0.1	0.01
19	EY	10	14	4	-0.9	0.81
20	EC	12	14	2	-2.9	8.41
21	IH	8	13	5	0.1	0.01
22	MHR	10	14	4	-0.9	0.81
23	MHA	6	16	10	5.1	26.01
24	NK	8	12	4	-0.9	0.81
25	RM	14	15	1	-3.9	15.21
26	SM	11	17	6	1.1	1.21
27	WNAC	12	18	6	1.1	1.21
28	WF	14	17	3	-1.9	3.61
29	YC	6	14	8	3.1	9.61
30	YT	10	15	5	0.1	0.01
Total		316	463	147		124.7
Average		10.5	15.4	4.9		41.5

Based on the data in the work table, it is known that the values obtained are as follows:

$\Sigma X_1 = 316$ Md $= \frac{147}{30} = 4.9$

$\Sigma X_2 = 463$ $\Sigma x2d = 124.7$

$\Sigma d = 147$ $N(N-1) = 30(30-1) = 870$

After knowing the value above, then the value is entered into the t-test formula as follows:

$$t = \frac{Md}{\sqrt{\frac{\sum x^2 d}{N(N-1)}}} \quad t = \frac{4.9}{0.378}$$

$$t = \frac{4.9}{\sqrt{\frac{124.7}{30(30-1)}}} \quad t = 12.963$$

Based on the results of data analysis using the t-test formula, obtained t-count value of 12,963, then the value is consulted with the value of t-table at a significance level of 5% with db = N-1 = 30-1 = 29, so the t-table value amounting to 2,045. Thus, the calculation obtained in this study is above the rejection limit with a value of 12,963. thus t-count is greater than t-table (12,963> 2,045). Based on these findings, this study is said to be significant, namely there is the Influence of the Supervisory Learning Model on Student Learning Outcomes in the Course of Diffusion of Educational Innovation in Educational Technology Study Program of IKIP Mataram Academic Year 2018/2019.

4. CONCLUSION

Based on the results of the study which were then compared with the theory of the Superitem learning model, it can be concluded that this study was declared significant, with the results of data analysis that showed the t-count value greater than the t-table value (12,963> 2,045), namely the t-count value above the rejection limit number in t-table with a significance level of 5% and db = N-1 = 30-1 = 29 which is (12,963> 2,045). So it can be concluded that there is the influence of the Supervisory Learning Model on Student Learning Outcomes in the Course of Diffusion of Educational Innovation in Educational Technology Study Program IKIP Mataram Academic Year 2018/2019.

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