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Application Of Articulation Learning Model to The Eye Entrepreneurship Lessons in Class Xi Majoring In Industrial Electronics Engineering SMK Negeri 2 Sungai Penuh

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Abstract

Student learning outcomes are a benchmark for the success of the educational process, but not all learning outcomes are satisfactory, including in the Entrepreneurship subject because students are less active in the learning process. So research was carried out using the Articulation learning model in the Entrepreneurship subject in class This research uses experimental research methods. Which has an experimental class and a control class. Based on the results of this research, it is learning using the articulation learning model had an effect on the learning outcomes of class XI at SMK Negeri 2 Kota Sungai Full Department of industrial electronics engineering for the 2023/2024 academic year.

Keywords: Articulation Learning Model, Student Learning Outcomes

INTRODUCTION

Education is the central point for the development of human civilization. Education is a need sought by humans to develop in order to be able to face all changes. Therefore, education needs more attention, ensuring both quantity and quality. (Purwanto, 2009:46) Therefore, education needs more attention, ensuring both quantity and quality. But not always the learning results obtained show the maximum. One of the things that can have an impact is the use of learning models. The learning model is the framework of the implementation of learning.

This problem can be overcome by teachers applying varied learning models to arouse student learning interest so that students can concentrate, One model that can be used is the articulation learning model. mThe articulation learning model of the process is like a chain message, meaning that what the teacher has given, a student is obliged to pass it on to other students (his group partner). This is unique to the articulation learning model. Students are required to be able to act as message recipients as well as act as messengers Ngalimun, (2012) The articulation learning model has the advantage of being able to help students understand difficult concepts. This approach is useful to help students develop cooperation skills, critical thinking and the ability to help friends. Easier interaction Easier and faster shaping of the form increases children's participation

Based on the results of an interview I got from the Entrepreneurship Teacher of SMK Negeri 2 Kota Sungai Penuh, Department of Industrial Electrical Engineering Sungai Full

City on February 16, 2023, especially in class IX. Shows that the learning outcomes still have not reached the individual KKM set at SMK Negeri 2 Kota Sungai Full, which is 75. Because in general students think that entrepreneurship is a difficult subject, many students do not understand when learning takes place. For students who have an ability level of less than the average of 75 along with difficulties in solving questions as a result, such students feel bored learning Entrepreneurship. Based on table 1, it can be seen that the learning outcomes in the Entrepreneurship subject are still quite low and the percentage of students who complete KKM has not been able to reach 75% of the total number of students in the class.

The cause of the low completeness of student learning outcomes due to the lack of student participation in the learning process means that the active role of students in learning is still very lacking. There are still many students who dare not ask questions and express ideas or ideas, unwilling to answer the teacher's questions. From the explanation of the background and conclusions of the relevant research, the researcher is interested in conducting research with the research title "Application of the Articulation Learning Model in Entrepreneurship Subjects in Class XI of SMK Negeri 2 Department of Industrial Electronics Engineering Sungai Full City

RESEARCH METHOD

This research uses experimental research, aiming to determine the effect of the application of articulation learning on student learning outcomes. In this research design there are two groups, namely the experimental group and the control group. In the experimental group, a learning model with an articulation model was applied, while in the control group, a direct teaching model was applied. After applying the model, students are then given a posttest to work on and take the value from the posttest. This research was carried out in class XI A and B of SMK Negeri 2 Sungai Full City. The number of Class A students is 30 people and B is 30 people.before conducting research, the step that must be passed is the Validity Test, Level of Difficulty.

RESULT AND DISCUSSION

From the results of this study can be presented the results of this validity test question:

Tabel 1 Hasil Uji Validitas

Nomor Soal	Hasil	Kategori
Nomor 1	0,217	Tidak Valid
Nomor 2	0,450	Valid
Nomor 3	0,704	Valid
Nomor 4	0,158	Tidak Valid
Nomor 5	0,324	Tidak Valid
Nomor 6	0,483	Valid
Nomor 7	0,511	Valid
Nomor 8	0,110	Tidak Valid
Nomor 9	0,670	Valid
Nomor 10	0,199	Tidak Valid

Sumber: Data Primer, 2023

Table 1 shows that from 10 question items, 5 question items are valid with a value of (0.388) while the other 5 question items are invalid. $r_{xy} \geq r_{tabel}$The next test is the difficulty level test carried out so that each test question item has an easy level, medium level or difficult level.

Tabel 2 Hasil Uji Tingkat Kesukaran

Nomor soal	Hasil	Kriteria
1	0,535	Sedang
2	0,652	Sedang
3	0,632	Sedang
4	0,558	Sedang
5	0,568	Sedang
6	0,650	Sedang
7	0,662	Sedang
8	0,585	Sedang
9	0,675	Sedang
10	0,423	Sedang

Sumber: Data Primer, 2023

From Table 2, it is obtained that there are 10 question items that have a difficulty level of $0.30\ 0.70 \leq TK \leq$ with medium criteria. The good question items are medium criteria.
The next test is the difference power test carried out so that researchers know the ability of the question items to divide high-ability students and low-ability students. Based on the instrument trials that have been carried out by researchers, the results of differentiating power analysis show**:**

Tabel 3 Hasil Uji Daya Beda

Nomor soal	Hasil	Kriteria
Nomor 1	-0,186	Sangat Buruk
Nomor 2	0,258	Cukup
Nomor 3	0,522	Baik
Nomor 4	0,098	Buruk
Nomor 5	0,057	Buruk
Nomor 6	0,326	Cukup
Nomor 7	0,382	Cukup
Nomor 8	0,081	Buruk
Nomor 9	0,257	Cukup
Nomor 10	-0,171	Sangat buruk

Sumber: Data Primer, 2023

Table 3 shows that there is 1 question item that requires a difference of 0.40 0.70 with good criteria, and 4 questions that require a difference of 0.20 0.40 with good enough criteria. While the other 5 questions require a difference of 0.00 0.20 with bad criteria, so they must be discarded. With this, 5 questions are used with good power and quite well. The determination of question points in this research is a question that has been proven valid, requires a medium level of difficulty (0.30 0.70) and requires good (0.40 0.70) and good enough (0.20 0.40) differences. Based on the analysis of the validity test of 10 questions, 5 questions were declared valid, the other questions were invalid so they could not be used. Furthermore, in the difficulty level test on the question items, 10 questions were obtained that were declared to have medium criteria, and in the distinguishing power test on 10 questions, questions with good criteria and good enough criteria would be used but the other 5 questions had bad and very bad criteria, so they could not be used and had to be discarded. So that the questions to be tested in the reliability test are 5 questions that have met the criteria above, including questions in numbers 2, 3, 6, 7 and 9<DP≤<DP≤<DP≤≤TK≤<DP≤<DP≤

The reliability test in this research uses the *Cronbach alpha* formula. According to the criteria in determining the reliability of *cronbach alpha* if $r_{11} \geq 0.60$. After 5 questions are valid and have met the requirements based on the determination of question items, the next stage will be tested on a reliability test. With the aim of knowing whether the question items used are reliable or vice versa. For calculations with the help of SPSS 25. The results of the reliability test can be seen in Table 4**:**

Table 4. Reliability Test Results

Reliability Statistics	
Cronbach's Alpha	N of items
0,757	5

Source: Primary Data, 2023

From Table 4, the reliability results 0.627 0.60 results have met the predetermined criteria. So it can be concluded, the instrument is reliable and usable. After conducting these tests, the next step is to carry out analytical prerequisite tests such as: Normality test, and homogeneity test.≥

The normality test is used as a requirement before testing the hypothesis used, namely the independent sample t-test. The normality test serves to see whether the test question data is normally distributed or vice versa, which is abnormal. Regarding the data applied in the normality test is the value of both classes (experimental class and control class. In this research, the normality test used was the Liliefors test with a significance of 0.05 in the Kolmogorov Smirnov test assisted by SPSS 25. The provisions in the normality test are as follows: If the significant value is 0.05 then the data is normally distributed and If the significant value is 0.05 then the data is not distributed normally. Regarding the results of this test that have been received by researchers in the normality test with the help of SPSS 25 can be seen in Table 5:≥<

Tabel 5 ***Test of Normality***

Variabel Terikat	Kelas	*Kolmogorv-Smirnov*		
		Statistic	df	Sig.
Hasil belajar	Kelas Eksperimen (XI A)	0,134	30	0,181
	Kelas Kontrol (XI B)	0,152	30	0,076
a. *Liliefors Significance Correction*				

Sumber: Data Primer, 2023

From Table 5, normality test results were obtained from the control class with significant values = 0.076 0.05, and significance values in the experimental class = 0.18 0.05 so that the data in both classes were normally distributed. Next conduct a homogeneous test.≥≥

The homogeneity test is carried out to see whether the data comes from homogeneous variance (the same) or not. In the homogeneity test, the data applied to the homogeneity test is the test value data of both classes. By applying the levene test calculation test using SPSS 25. The homogeneity test provisions are: If the value is 0.05, then the sample of the variance population is equal (homogeneous) and If the value is 0.05, then the sample of the variance population is different (not homogeneous)α≥α<

Regarding the results that researchers have received in the homogeneity test with the help of SPSS 25 can be observed in Table 6**.**

Tabel 6 ***Test of Homogenety of Variance***

Variabel Terikat		*Levene Statistic*	df1	df2	Sig.
Hasil belajar	Based on Mean	1,118	1	58	0,249
	Based on Median	1,115	1	58	0,295
	Based on Median and with adjust ed df	1,115	1	57,808	0,295
	Based on trimmed mean	1,441	1	58	0,235

Sumber: Data Primer, 2023

The results of the homogeneity test processing with the help of SPSS 25, namely the significance value = 0.239 0.05 are accepted. Then it can be said that the sample is sourced from the same or homogeneous variance populationα≥H_0. After the application of prerequisite tests, namely the normality test and homogeneity test, has been fulfilled, the

researcher conducts a hypothesis test in research by applying *an independent sample t-test.*Regarding the results that have been received from calculations with the help of SPSS 25 can be seen from Table 7:

Table 7 Independent Sample t-test

Class	N	Variance	Means	tcalculate	tTable
Experiment	30	280,22	78,76	7,227	2,002
Conrrol	30	70,56	63,00		

Source: Primary Data,2023

The results of the hypothesis test calculation by applying *an independent sample t-test* and assisted by SPSS 25 on the student Entrepreneurship Learning Outcomes test obtained a score of 7,227. If this value is compared with a value of 2.002, it can be seen that the value (7.227 2.002), then the decision is rejected. Thus, researchers concluded that the learning outcomes of student entrepreneurship in experimental classes taught using articulation learning models were better than the learning outcomes of student entrepreneurship in control classes applied direct learning models$t_{hitung} t_{tabel} t_{hitung} > t_{tabel} > H_0$.

CONCLUSION

Based on the results of research and discussion, it was concluded that, students in the experimental class who were asked / applied the articulation learning model had better entrepreneurial learning outcomes than students in the control class who were taught the direct model. This can be seen from the results of the hypothesis test using an independent sample t-test with the help of SPSS 25 which obtained a value of 7.225 2.002 so that the decision was rejected. Therefore, it can be concluded that the experimental class taught by the articulation learning model is better than the control class taught with the direct model seen from the results of learning Entrepreneurship. Based on the results of this study, it is recommended that teachers in the field of study should use a variety of learning models in applying entrepreneurial learning concepts in order to think critically.

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