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Learning Sets Knowledge Effect on Confidence Level in Teaching of Informatics Education Students

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ABSTRACT

This research is motivated by students as well as personal writers who have problems when carrying out teaching practice activities at school, one of which is the lack of student self-confidence caused by a lack of knowledge regarding the learning sets that will be used in teaching. The objectives of this research include; (1) knowing the description of knowledge of the 2016 PTI student learning sets; (2) knowing the description of self-confidence in teaching PTI students' class of 2016; (3) knowing the relationship between knowledge of learning sets with confidence in teaching PTI students' class of 2016; and (4) knowing the contribution of knowledge of learning sets to self-confidence in teaching Informatics Engineering Education students' class of 2016. The research design used is descriptive quantitative research. The sample in this study amounted to 74 respondents obtained based on simple random sampling technique. The research instrument used tests and questionnaires. The results of this study indicate that; (1) Students who have a very high knowledge of learning sets are 43.2%, students who have a high knowledge of learning sets are 52.7%, and students who have low knowledge are 4.1%, (2) students have confidence self-confidence in teaching is high at 94.6% and students have high self-confidence in teaching at 5.4%, (3) There is a significant relationship between knowledge of Learning Sets and Confidence in Teaching at State University Informatics Engineering Students Malang, (4) the contribution of variable X to variable Y is 33.2% and the rest is influenced by other factors not mentioned in the study.

I. INTRODUCTION

The teacher is a centric figure who appears in front of the class. A teacher will be noticed by many students when teaching. At that time, the students observed the teacher's appearance. A learning process can run smoothly if a teacher can give the best appearance when teaching in front of the class [1]. The appearance of the teacher can be assessed based on the attitude and ability of the teacher when teaching [2]. In addition, the appearance of the teacher can also show the level of optimism of the teacher as a professional educator [3].

However, it is undeniable that sometimes there are still feelings of nervousness or anxiety when teaching, especially when teaching for the first time or even teachers who have been teaching for a long time also sometimes feel nervous in certain conditions when teaching in front of students.

Confidence in teaching is an important capital that must be owned by a teacher or prospective teacher so that they are ready to appear impressive in front of students [4]–[6]. The self-confidence of a teacher will have an impact on his students. A teacher who does not have high self-confidence will be considered unsuccessful in carrying out his responsibilities as an educator, because students will underestimate the teacher as an educator so that the attention and enthusiasm of students is low.

This is what the teacher often doesn't pay attention to in starting learning, so that in the classroom, when students get other things that are not according to their wishes, such as students who are sleepy, talking to their friends, or playing, the

blame is on the students. These complaints usually make the teacher feel annoyed. However, when this happens, it is not entirely the fault of the students.

Therefore, teachers must be creative and professional in making innovations in the learning process [7], [8] so that they are able to make students interested and enthusiastic in the learning process so that expectations and educational goals can be achieved as expected. One of the capitals of being a creative and professional teacher is mastery of learning sets. Learning sets are things that must be prepared by the teacher before carrying out learning. Learning sets become a guide that must be done by a teacher in class, as well as provide guidance in developing better teaching techniques. It is also useful for achieving the goals of the current education curriculum in Indonesia, namely the 2013 curriculum. The implementation of the 2013 curriculum is largely determined by the ability of teachers to develop learning sets, namely the development of syllabus, textbooks, learning resources, learning media, learning models, assessment instruments, and learning plan (RPP).

As prospective teachers, Informatics Engineering students are equipped with various knowledge related to competencies that must be mastered by teachers. To further deepen the knowledge that has been learned, students as prospective teachers are also required to carry out real learning in the school environment in the Field Practice Study Program (KPL). Although KPL activities provide many benefits for student teacher candidates, it is not uncommon to encounter many challenges in their implementation. Many student teacher candidates feel less confident when carrying out teaching exercises caused by a lack of knowledge of planning learning sets and lack of mastery of the material that will be delivered to students.

The problems above are in line with the results of observations made by researchers regarding the readiness to implement KPL on November 25, 2018. It was obtained that 85% of students admitted that they were ready to implement KPL while 15% of students admitted that they were still not ready to implement KPL because they felt not confident when carrying out teaching practices. However, after further observation, it turned out that from 85% of students who claimed to be ready to carry out KPL, it turned out that there were still many obstacles during the teaching process including: 1) the learning process was monotonous, 2) the learning media used were less attractive, 3) lack of student readiness in preparing material to be delivered to students, and 4) many students do not participate in learning activities properly such as sleeping, talking with friends, and playing games. The important point from the results of these observations is that students who have carried out teaching practices in training schools still feel less confident if they are able to carry out the learning process well due to their lack of ability to prepare for learning.

Based on the problems above, it can be concluded that currently there are still many teachers and prospective teachers who are not fully ready to teach. One of the factors that cause the unpreparedness of teachers in teaching is not having self-confidence when teaching which is caused by a lack of knowledge of learning sets, so that their use is not optimal and the results are not in accordance with the desired expectations. Therefore, it is necessary to have a deeper knowledge of teachers or prospective teachers regarding learning tools in order to achieve the expected goals.

II. METHODS

This research uses quantitative descriptive research. The method in this study is the method used in completing scientific research with the aim of solving the problem being researched, namely the knowledge of spending devices on self-confidence in teaching Informatics Engineering students' class of 2016 through tests and questionnaires. The population in this study amounted to 116 students and the sample used was 74 students using simple random sampling technique. The research planning design can be seen in Fig. 1.

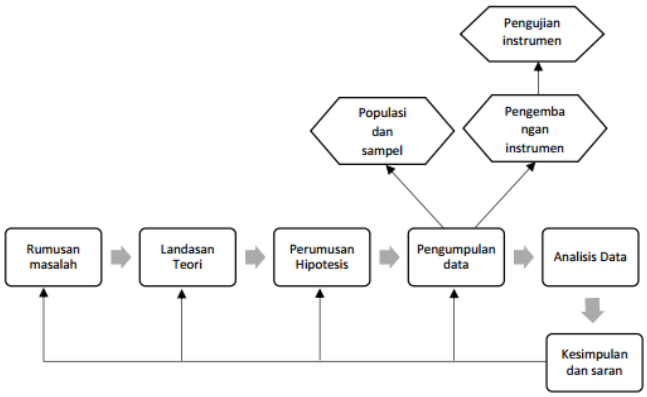

Fig. 1. Research Design

The test of the instrument includes validity test, reliability test, difficulty level test, and item difference test. In this study, the instrument of the question has met the requirements of validity, reliability, and goodness of matter. Meanwhile, the questionnaire instrument has met the validity and reliability requirements. The test instrument in the form of a knowledge of the spending device (X) obtained an alpha value of 0.664, and self-confidence in teaching (Y) obtained an alpha value of 0.732.

Before carrying out the prerequisite analysis test, descriptive statistical analysis was carried out on each variable which included: (1) indicator analysis of the knowledge variable on spending tools, (2) frequency distribution of knowledge about spending tools, (3) analysis of indicators of confidence in teaching (4) distribution frequency of self-confidence in teaching.

Furthermore, to test the hypothesis, it is necessary to test the analytical prerequisites, namely the normality test, and the linearity test. If the analysis prerequisite test is met, then hypothesis testing with simple regression analysis can be continued. The level of significance set is = 0.05. The decision-

making procedure for simple regression analysis is if tcount is equal to or greater than ttable then Ho is rejected and Ha is accepted. On the other hand, if tcount is less than ttable, then Ho is accepted and Ha is rejected.

III. Result and Discussion

The results of descriptive statistical analysis in the form of indicator analysis of knowledge variables about learning tools, frequency distribution of knowledge of learning tools, analysis of indicators of confidence in teaching, frequency distribution of confidence in teaching are shown in Table 1, Table 2, Table 3, Table 4. Prerequisite test results analysis in the form of normality test, linearity test, heteroscedasticity test and autocorrelation test are shown in Table 5, Table 6, Table 7, Table 8. Finally, the results of hypothesis testing in the form of simple regression analysis are shown in Table 9.

TABLE I. Results of Analysis of Variable Indicators Knowledge of Learning Sets

	Indicators	∑Items	Score	(%)	Category
1	Translate syllabus	3	190	85,6	Very High
2	Translating RPP	3	151	68	High
3	Translating learning media	4	197	88,7	Very High
4	Translating teaching materials	3	103	73,4	High
5	Interpreting the syllabus	2	78	35,1	Low
6	Interpreting RPP	4	205	92,3	Very High
7	Interpreting learning media	1	60	81	Very High
8	Interpreting teaching materials	1	42	57	Low
9	Extrapolating RPP	3	165	74,3	High
10	Extrapolating learning media	1	69	93	Very High

TABLE II. Distribution of Knowledge Results of Learning Sets

Criteria	Interval Score	Freq.	(%)
Very High	76 – 100	32	43,2
High	51 – 75	39	52,7
Low	26 – 50	3	4,1
Very Low	0 – 25	0	0

TABLE III. Results of Analysis of Variable Indicators Knowledge of Learning Sets

	Indicators	∑Items	Score	(%)	Category
1	Confidence in abilities	7	1319	63,7	High
2	Optimistic	5	1067	73,8	High
3	Objective	7	1638	79,1	High
4	Responsible	7	1472	68,9	High
5	Rational	4	847	71,5	High

TABLE IV. Distribution of Interest in Teaching Profession

Criteria	Interval Score	Freq.	(%)
Very High	99 – 120	0	0
High	76 – 98	70	94,6
Low	53 – 75	4	5,4
Very Low	30 – 52	0	0

TABLE V. Normality Test Results

		Unstandardized Residual
N		74
Normal Parameters[a,b]	Mean	.000000
	Std. Deviation	4.90963
Most Extreme Differences	Absolute	.101
	Positive	.087
	Negative	-.101
Test Statistic		.101
Asymp. Sig. (2-tailed)		.061[c]

a. Test distribution is Normal.
b. Calculated from data
c. Lilliefors Significance Correction
d. This is a lower bound of the true significance

Based on the test results show the value of Asymp. Sig is 0.061 or 0.05 so that the population is normally distributed.

TABLE VI. Linearity Test Results

			Sum of Squares	df	Mean Square	F	Sig.
Confidence * Knowledge	Between Groups	(Combined)	1000.66	10	100.07	3.857	.000
		Linearity	875.51	1	875.51	33.746	.000
		Deviation from Linearity	125.15	9	13.90	.536	.843
	Within Groups		1634.48	63	25.94		
	Total		2635.13	73			

Table 6 shows that the Deviation from Linearity Sig. is 0.843 which means the value is greater than 0.05 and the calculated F value is 0.536 which means the value is smaller than F table (2.03), where F table can be seen from the formula (df) Deviation from Linearity: Within Groups (9:63) contained in the F distribution table of 0.05 significance. So, it can be concluded that there is a significant linear relationship between the variable knowledge of learning sets (X) and the variable of self-confidence in teaching (Y).

TABLE VII. MULTICOLLINEARITY TEST RESULTS

		Knowledge	Confidence
Knowledge	Pearson Correlation	1	.576**
	Sig. (2-tailed)		.000
	N	74	74
Confidence	Pearson Correlation	.576**	1
	Sig. (2-tailed)	.000	
	N	74	74

**. Correlation is significant at the 0.01 level (2-tailed).

Based on the decision-making basis for the Partial Correlation Test that has been described, the results of Sig. of 0.000 which means a significance value <0.05 then H_a is accepted. This means that there is a significant relationship between knowledge of learning sets and confidence in teaching of informatic education students.

TABLE VIII. REGRESSION ANALYSIS RESULTS

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	58.78	4.43		13.25	.000
	Knowledge	.37	.06	.576	5.98	.000

a. Dependent Variable: Confidence

Based on the data obtained, t count is 5.985 and t table with a significance level of 5% is 1.665, which means t count > t table then H_a is accepted. This means that there is a significant effect on the variable knowledge of learning sets partially on the variable of confidence in teaching.

TABLE IX. RESULTS OF SIMPLE LINEAR REGRESSION ANALYSIS X2 WITH Y

Variables	Regression Coefficient (Beta)	Correlation coefficient (R)	R^2
Knowledge of Learning Sets	0,576	0,576	0,332

Based on the table above, it is known that the regression coefficient is 0.576, the correlation coefficient is 0.576, and R^2 is 0.332. then the next step is to find out the contribution of the variable understanding of learning tools to the variable of self-confidence in teaching using the Effective Contribution (EC) which is expressed as a percentage. The results obtained based on the R^2 are 33.2%. The Relative Contribution (RC) is 100% or equal to 1. So, it can be concluded that the contribution of the Knowledge of Learning Sets variable to the variable of Confidence in Teaching is 33.2% and 66.8% that influenced by other factors.

Knowledge of Learning Sets Contribution to Confidence Level in Teaching by Informatics Education Students

Based on the results of the analysis that has been carried out, it is known that understanding of learning tools has a contribution to confidence in teaching Informatics Education students by 33.2%. This shows that in addition to understanding the learning tools there are other factors that affect self-confidence in teaching that are not mentioned in the study.

An understanding of high learning tools is able to provide encouragement for prospective teachers to be able to master the class and be able to convey material freely [9]–[12]. This can happen because with a high understanding, prospective teachers are able to plan the learning process according to the needs of students. So that learning activities can run according to the objectives to be achieved. Learning activities can run in accordance with the objectives if the teacher has the confidence that he will succeed when teaching. Self-confidence is a source of self-strength to be able to get along and adapt to the social environment.

IV. CONCLUSION

Based on the results of the research and discussion that have been described, the level of knowledge of the learning sets of Informatics Engineering Education students are 32 students who have a very high knowledge of learning sets, 39 students have a high knowledge of learning sets, and 3 students have a low knowledge of learning sets. The highest knowledge level is on the understanding of learning media category, while the lowest knowledge level is on the understanding of the syllabus category. So that lecturers and prospective teacher students are expected to add insight related to the syllabus so that students' understanding of the syllabus increases.

The level of confidence in teaching students of Informatics Engineering Education is quite high. There are 70 students who have a high level of confidence in teaching, and 4 students have a fairly high level of self-confidence. The highest indicator of self-confidence in teaching is in an objective attitude, while the lowest indicator of self-confidence in teaching is in an attitude of belief in self-ability. This shows that the students still feel that they do not have confidence in their abilities so that they feel insecure when teaching.

knowledge of learning sets has a moderate relationship with confidence in teaching. This shows that knowledge of learning

sets is one of the factors that influence self-confidence in teaching.

The contribution of knowledge of learning sets to self-confidence in teaching is 33.2%. This means that as many as 33.2% of the variable understanding of learning tools as a factor of confidence in teaching by students of informatic education. While the remaining 66.8% is influenced by other factors.

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