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Activeness of the Learning Process through the Think Pair Share Learning Model in Basic Electrical Subjects at SMKN 1 Lhoknga

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Abstract

Vocational High School is an education that is organized by preparing students to work in accordance with certain fields. Vocational learning is lacking in the aspect of understanding so that it can affect student learning outcomes. At SMKN 1 Lhoknga, students' understanding is still lacking because the learning model applied is less able to optimize the development of students' understanding. To overcome this problem, the Think Pair Share learning model is applied which is in accordance with the learner-centered curriculum. The study aims to see the response and changes in the activeness of students in basic electrical subjects by applying the Think Pair Share model. This research uses a quantitative approach. The sample in this study were all students of class X TITL SMKN 1 Lhoknga, totaling 27 students. The instruments used are observation sheets and questionnaires. The results showed that the Think Pair Share learning model the average level of student activeness obtained was 79 with a trend of 79 ≥ 73.3 which was included in the very high category of student activeness. As for the response of students, it is 77.04%. Based on the results of this study, it can be concluded that the use of the Think Pair Share model can increase the activeness of students in basic electrical materials.

Keywords*: Vocational School, Learning Model, Think Pair Share, Engagement, Basic Electricity.*

Abstrak

Sekolah Menengah Kejuruan merupakan pendidikan yang diselenggarakan dengan mempersiapkan peserta didik untuk bekerja sesuai dengan bidang tertentu. Pembelajaran SMK kurang pada aspek pemahaman sehingga hal tersebut dapat berpengaruh pada hasil belajar peserta didik. Pada SMKN 1 Lhoknga, pemahaman peserta didik masih kurang disebabkan model pembelajaran yang diterapkan kurang dapat mengoptimalkan berkembangnya pemahaman peserta didik. Untuk mengatasi masalah tersebut, diterapkannya model pembelajaran Think Pair Share yang sesuai dengan kurikulum berpusat pada peserta didik. Penelitian bertujuan untuk melihat respon dan perubahan keaktifan peserta didik pada mata pelajaran dasar listrik diterapkannya model Think Pair Share. Penelitian ini menggunakan pendekatan kuantitatif. Sampel dalam penelitian ini adalah seluruh siswa kelas X TITL SMKN 1 Lhoknga yang berjumlah 27 peserta didik. Instrumen yang digunakan berupa lembar observasi dan angket. Hasil penelitian menunjukkan bahwa model pembelajaran Think Pair Share rata-rata tingkat keaktifan siswa yang diperoleh adalah 79 dengan kecenderungan 79 ≥ 73,3 yang termasuk dalam kategori sangat tinggi terhadap keaktifan peserta didik. Sedangkan untuk respon peserta didik yaitu sebesar 77,04%. Berdasarkan hasil penelitian tersebut dapat disimpulkan bahwa penggunaan model Think Pair Share dapat meningkatkan keaktifan peserta didik pada materi dasar listrik.

***Kata kunci**: SMK, Model Pembelajaran, Think Pair Share, Keaktifan, Dasar Listrik.*

Introduction

Vocational High School (SMK) is a formal education that has a special training pattern to direct students to have skills so that they become graduates who are ready to compete professionally in entering the world of work in both business and industry (companies) [1] . Article 15 of the National Education System Law states that Vocational Education is a level of secondary education that has the capability to prepare students to work in specific fields. The learning model is a part of education where the role of this learning model is very important in organizing the conditions of the learning environment very well so that the desired learning objectives can be achieved [2]. An example is the Think Pair Share model, where this approach encourages collaboration among learners in completing academic tasks. Think Pair Share not only improves learners' interaction and understanding of the material, but also strengthens their motivation in working together in group learning [3].

Think Pair Share (TPS) is a collaborative learning approach that aims to change the way learners interact [4]. By using collaborative learning models such as Think Pair Share, the learning environment in the classroom is shaped to support each other through small group work and class discussions. The cooperative learning approach focuses on learners' awareness of the importance of applying knowledge, concepts and skills to fellow learners, allowing each learner to feel happy to share knowledge with their group members [5]. This model is in line with the current curriculum, especially Curriculum 2013, which emphasizes a learning model that promotes active participation of learners, this aims to achieve the goals of the learning process more effectively [6]. The reason for choosing the Think Pair Share cooperative learning model is because this model emphasizes increasing learner participation. this approach, students are encouraged and supported to be active for the achievement of more effective learning outcomes. This model offers experiences to develop leadership skills and decision-making abilities within a group framework, while providing opportunities for students to interact and learn actively.

Referring to the description above as well as observations at SMKN 1 Lhoknga in basic electrical subjects Still using traditional learning methods causes a decrease in the level of involvement of students, which in turn affects their learning achievement. To improve learner engagement and learning achievement in Basic Electrical subjects, changes in the learning model were made by applying the think pair share method.

Literature Review (optional)

One important indicator that must be considered in the movement to increase the level of the learning process is the highest possible level of learner involvement [7]. Based on the explanation above, the characteristics of learning activeness itself come from students and the learning process, from the student side, namely (a) students actively ask or ask for explanations from their teachers if there is material that they do not understand; (b) students in expressing and discussing an idea; and (c) students are able to do their assignments [8]. In the learning process itself, there are four characteristics, namely (a) students are active in finding information related to the learning process; (b) there is active interaction with students; (c) students have the opportunity to assess their own work; and (d) optimal utilization of learning resources [9].

The think pair share (TPS) method has explicitly defined procedures that are carried out by exchanging opinions between students and helping each other. The think pair share (TPS) method is a substitute for whole-class question and answer. As one of

cooperative learning, the think pair share (TPS) method has certain steps. Each student thinks and works on the task alone. Students pair up with one partner in the group and discuss with their partner. The two pairs meet again with a group of four. Students have the opportunity to share their work with the group of four.

The think pair share (TPS) method consists of five steps [10], namely:

a) The initial stage of learning begins by evoking previous understanding and motivating students to participate.
b) The thinking stage (Think) begins when the teacher gives a demonstration to explore the basic concepts of students. Then, learners pair up to discuss their answers before finally sharing the results of the discussion with the class as a whole.
c) The pairing stage involves grouping learners in pairs. The teacher specifies that each learner will work with a seatmate to encourage cooperation. This aims to keep learners engaged with their classmates, not turning to other learners who may be considered smarter.
d) The share stage allows learners to present their answers together to the whole class.
e) The final stage is given to learners and groups to evaluate learners' learning progress and their cooperation in understanding the material based on the answers in the thinking stage.

Method

In this study using a research design, namely a quantitative research approach. The quantitative method is a systematic approach that adopts mathematical models. Usually, this method uses hypotheses and theories related to natural phenomena. Research with this approach tends to be objective and analytical. To collect data, researchers often use various techniques such as tests, testing, and structured interviews. The results of this research are numerical data, scales, or graphs that can be processed mathematically. In the context of this study, the sample used was class X SMKN 1 Lhoknga consisting of 27 students to apply the Think Pair Share (TPS) learning model in basic electrical subjects. Data collection instruments are activities used by researchers or can be said to be a tool used in the data collection process so that these activities run systematically and easily for researchers. In this study using observation sheets and questionnaires.

The activeness of students during the learning process is divided into four categories which include very low (value scale 1), low (value scale 2), high (value scale 3) and very high (value scale 4) according to the qualification of the observation score of student learning activeness that has been determined. The qualification of the score categories of observation results of student learning activeness in learning basic electricity with the Think Pair Share (TPS) strategy in Table 1 [11].

Tabel. 1 Categorization of student learning activeness level

No	Trend	Kategori
1	$Y \geq \bar{Y} + 1 \times SBy$	Very high
2	$\bar{Y} + 1 \times SBy > Y \geq \bar{Y}$	High
3	$\bar{Y} > Y \geq \bar{Y} - 1 \times SBy$	Low
4	$Y < \bar{Y} - 1 \times SBy$	Very low

The students' response questionnaire to the application of the Think Pair Share model is useful for obtaining data and then will be processed. The steps in analyzing the

students' response questionnaire to the application of the Think Pair Share model, to facilitate the determination of assessment criteria, the assessment guidelines use the percentage criteria in Table 2 [12].

Tabel. 2 Criteria for Percentage of Learner Response

No	Value	Rating Category
1	76-100	Very High
2	51-75	High
3	26-50	Low
4	0-25	Very Low

Result

In this study, class X TITL was given special treatment by applying the Think Pair Share (TPS) strategy to increase students' learning activeness in the learning process. The goal is to achieve learning targets by observing the level of learner participation then supported by data collection regarding the level of activeness. The data collection process is carried out to ensure the accuracy of the information needed to achieve the desired results. The learner participation observation sheet was given to the observer, one of the basic electricity teachers at SMKN Lhoknga, to facilitate this research. The observation sheet was given with the aim of evaluating the responses of students' learning activeness based on observations from the observer. Before the start of learning in class X TITL, the researcher gave the observation sheet of student activeness to the observer. This step aims to allow the observer to assess the involvement of students. The observation sheet contains statements about the level of participation of students in accordance with predetermined criteria. Learners in the learning process led by the researcher as a teacher are well involved, while the observer observes the activities of students without interrupting the learning process. The results of the observation sheet filled in by the observer can be found in the appendix.

Based on Table 2, each indicator has calculated its respective score, according to the results of the observers. The level of physical, mental, emotional, intellectual, and personal involvement with a total score of 15 from 4 question items. The level of attention and independence with a total score of 16 out of 4 items. Level of cooperation and social relationships with a total score of 17 out of 4 items. Level of using information sources with a score of 4 out of 1 item. The level of expressing ideas and solving problems with a total score of 27 out of 7 item questions. Overall, the results of each indicator can be seen in the table below.

Tabel. 3 Calculation Results of Each Indicator

Indicators	Trend	Kategori
Physical, mental, emotional, intellectual, and personal engagement	$15 \geq 12 + 1 \times 2{,}6 = 15 \geq 14{,}6$	Very High
Attention and independence	$16 \geq 12 + 1 \times 2{,}6 = 16 \geq 14{,}6$	Very High
Cooperation and Social Relationships	$17 \geq 12 + 1 \times 2{,}6 = 17 \geq 14{,}6$	Very High
Use of Information Sources	$4 \geq 3 + 1 \times 0{,}6 = 4 \geq 3{,}6$	Very High

Expressing ideas and solving problems	27 ≥ 21 + 1 x 4,6 = 27 ≥25 ,6	Very High

In this study, the researcher gave an observation sheet regarding student learning activeness in basic electricity lessons to an observer before learning began. This is done so that observers can pay attention to the response and level of involvement of students during the learning process so that they can fill out the observation sheet to assess the level of student activeness. The structure of the observation sheet is based on indicators of learner engagement in the learning process. Broadly speaking, these indicators are divided into five, including physical, emotional, mental, intellectual, and personal involvement as the first indicator. The second indicator is the level of attention and independence, followed by the third indicator which is cooperation and social relations. The fourth indicator is the use of information, and the fifth indicator is the ability to express ideas and solve problems.

Based on the results of the previous analysis, in the first indicator, the level of physical, emotional, mental, intellectual, and personal involvement in class has a percentage of 15% of the highest percentage of 20%. In the second indicator, the level of attention and independence in class has a percentage of 16% of the highest percentage of 20%. In the third indicator, the level of cooperation and social relationships has a percentage of 17% of the highest percentage of 20%. In the fourth indicator, the level of information use in class has a percentage of 4% of the highest percentage of 5%. Furthermore, in the fifth indicator, the level of expressing ideas and solving problems has a percentage of 27% of the highest percentage of 35%.

Based on these calculations, to see the category of basic electrical learning activeness of students in class X TITL can be seen from the trends in table 4.

Tabel. 4 Results of Categorization Analysis of Student Learning Activity Levels

No	**Trend**		**Kategori**
1	79 ≥ 60 + 1 x 13,3	79 ≥ 73,3	Very high
2	60 + 1 x 13,3 > 79 ≥ 60	73,3 > 79 ≥ 60	High
3	60 > 79 ≥ 60 – 1 x 13,3	60 > 79 ≥ 46,7	Low
4	79 < 60 – 1 x 13,3	79 < 46,7	Very low

Based on that table, the calculation results show a very good level of student learning activeness. In the very high category, the score is 79 ≥ 60 + 1 x 13.3 = 79 ≥ 73.3. This shows that the level of learner participation in the learning process has met the indicators of learner learning activeness. From highest to lowest, learners' achievement can be divided into several aspects, such as utilization of information sources, social cooperation, attention and independence, physical involvement, and the ability to convey ideas and solve problems. Utilization of information sources is the aspect with the highest level of learner participation, while the ability to convey ideas and solve problems has a lower level of participation. Even so, learners' achievement in each aspect is in the very high category. From this analysis, Think Pair Share (TPS) has a significant impact on the level of learner participation in basic electricity learning.

Overall, the level of student activeness in learning basic electricity in class X TITL is 79%. With this percentage based on the category of students' activeness level, class X TITL has reached a very high category from the highest percentage of 100%. Overall, it can be stated that the results of the level of student activeness in basic electrical learning are sorted from the lowest score to the highest score on each indicator of student activeness. These indicators are first, the ability to express ideas and solve problems. Second, the level of physical, emotional, mental, intellectual, and personal involvement.

Third, the level of attention and independence. Fourth, cooperation and social relationships. Fifth, the use of information. Class X TITL in general has achieved or exceeded the indicators of learner activeness very well, in the very high category.

The material on basic electricity offers learners the opportunity to ask questions that are both factual and analytical. This allows them to think critically when participating in the Think Pair Share game, provide answers, and ask questions as directed by the teacher to achieve the learning objectives. In addition, other factors at play include interest, desire and interest in the learning process, as well as the teacher's readiness to utilize supportive strategies and media to encourage learners' active participation and skills in learning. Thus, the use of the Think Pair Share strategy in learning basic electricity has a significant impact on the level of activeness of students in class X TITL at SMK N 1 Lhoknga.

In this study, the analysis of the application of the Think Pair Share (TPS) model in basic electricity lessons was studied through students' responses to the model, using questionnaires and observation sheets. The questionnaire given to students before and after the application of the TPS model aims to obtain their views on the model. The response questionnaire is in the form of a 1-4 rating scale, asking participants to only mark the appropriate activity criteria.

Tabel. 5 Data on the Results of the Learner Response Questionnaire

No	Name	Total	Percentage (%)	Category
1	RS	64	80	Very high
2	M	60	75	Very high
3	SA	59	73,75	High
4	MA	58	72,5	High
5	AF	59	73,75	High
6	NN	59	73,75	High
7	HNN	60	75	High
8	SM	59	73,75	High
9	MH	61	76,25	Very High
10	MF	60	75	High
11	MNA	59	73,75	High
12	DA	63	78,75	Very High
13	RH	59	73,75	High
14	IS	62	77,5	Very High
15	MHF	70	87,5	Very High
16	AP	80	100	Very High
17	RL	48	60	High
18	RSA	66	82,5	Very High
19	MK	69	86,25	Very High
20	WA	57	71,25	High
21	SR	60	75	High
22	RA	61	76,25	Very High
23	MFH	60	75	High
24	MR	63	78,75	Very High

25	MF	62	77,5	Very High
26	TF	59	73,75	High
27	MHR	67	83,75	Very High
Total		1664		
Average			77,04	Very High

The results of students' responses have a good response to the application of the Think Pair Share (TPS) model in basic electrical lessons, this can be seen in the average value obtained by students in the questionnaire after the application of the Think Pair Share (TPS) model, which is 77.04%. Although it does not reach 100%, students have begun to understand basic electrical material with the application of the Think Pair Share (TPS) learning model. Referring to Table. 2 regarding the percentage criteria for learner response, it can be said to be high because the average value obtained in the learner response questionnaire is 77.04, so almost all students in class X ITT are interested in the application of the Think Pair Share (TPS) model. In addition to the Think Pair Share (TPS) learning model having a good impact on students' understanding, the Think Pair Share (TPS) model also received a good response from students. Thus students have begun to understand the demands of the Think Pair Share (TPS) model so that it will make it easier for students when participating in learning.

Conclusion

Based on the results of research that has been carried out regarding the effectiveness of the Think Pair Share learning strategy on students' basic electrical learning activeness, it can be concluded that, the use of the Think Pair Share learning strategy on student learning activeness. Because students can be actively involved both physically, emotionally, and intellectually in the learning process. As well as achieving indicators of student learning activeness that have been determined and achieving learning objectives. Overall, the level of student activeness in basic electrical learning is 79% with a tendency of 79 ≥ 73.3 which is included in the very high category. The response of students to the application of the Think Pair Share learning model is 77.04% which is included in the high category or students agree with the application of the Think Pair Share learning model. So, the use of the Think Pair Share learning strategy provides significant activeness to the basic electrical learning activeness of SMK N 1 Lhoknga students in class X TITL.

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