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The Think Pair Share Learning Model's Active Learning Process in Basic Electrical Subjects at SMKN 1 Lhoknga, Aceh

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Abstract

Vocational high school curriculum aimed to prepare pupils for careers in specific industries. Student learning results are significantly impacted by the vocational school learning process. Students' comprehension at SMKN 1 Lhoknga is still deficient since the used learning model is not as effective in maximizing the growth of students' understanding. Applying the Think Pair Share learning paradigm, which is in line with the learner-centered curriculum, is one option to solve this issue. This study employs a quantitative methodology which involved 27 pupils in class X TITL SMKN 1 Lhoknga. Questionnaires and observation sheets are the tools employed. The findings demonstrated that, according to the Think Pair Share learning model, students' average level of activity was 79, with a trend of 79 > 73.3, placing them in the very high category. The percentage of students who responded is 77.04%. it can conclude that the utilization of the Think Pair Share approach can raise students' engagement with basic electrical materials, according to the study's findings.

Keywords*: Learning Model, Think Pair Share, Basic Electricity*

Abstrak

Kurikulum sekolah menengah profesional bertujuan untuk mempersiapkan siswa untuk karir di industri tertentu. Hasil pembelajaran siswa secara signifikan dipengaruhi oleh proses pembelajaran sekolah profesional. Pemahaman siswa di SMKN 1 Lhoknga masih kurang karena model pembelajaran yang digunakan tidak begitu efektif dalam memaksimalkan pertumbuhan pemahaman mahasiswa. Mengaplikasikan paradigma pembelajaran Think Pair Share, yang selaras dengan kurikulum yang berpusat pada siswa, adalah salah satu pilihan untuk memecahkan masalah ini. Studi ini menggunakan metodologi kuantitatif yang melibatkan 27 siswa di kelas X TITL SMKN 1 Lhoknga. Survei dan lembar observasi adalah alat yang digunakan. Temuan ini menunjukkan bahwa, menurut model pembelajaran Think Pair Share, tingkat aktivitas rata-rata siswa adalah 79, dengan tren 79 > 73,3, menempatkan mereka dalam kategori yang sangat tinggi. Persentase siswa yang menjawab adalah 77.04%. dapat menyimpulkan bahwa penggunaan pendekatan Think Pair Share dapat meningkatkan keterlibatan siswa dengan bahan listrik dasar, menurut temuan penelitian.

Kata kunci: Model Pembelajaran, Pembagian Pasangan Pikir, Listrik Dasar

Introduction

Vocational High School (SMK) is designed to equip graduates with the skills necessary to succeed in the workforce and enter the business and industry sectors [1]. In order to effectively arrange the elements of the learning environment and accomplish the intended learning objectives, the learning model is crucial [2]. The Think Pair Share model, encourages collaboration among learners in completing academic tasks. Think

Pair Share model not only improves learners' interaction and understanding of the material, but also strengthens their motivation in working together in group learning [3]. The goal of the collaborative learning strategy Think Pair Share (TPS) is to alter how students engage with one another [4]. The learning environment in the classroom is shaped to assist one another through small group work and class discussions by utilizing collaborative learning models like Think Pair Share. The cooperative learning technique makes each learner feel delighted to share knowledge with their group members by emphasizing the value of applying knowledge, concepts, and skills to other learners [5]. This model is in line with the current curriculum, which emphasizes a learning model that promotes active participation of learners, and aims to achieve the goals of the learning process more effectively [6]. The Think Pair Share cooperative learning methodology was selected because it places a strong emphasis on raising learner involvement. With this method, students are supported and encouraged to take an active role in achieving learning objectives that are more successful. Through chances for active learning and interaction, this approach helps students hone their leadership and decision-making skills in a group setting. With reference to the aforementioned description and observations made in fundamental electrical topics at SMKN 1 Lhoknga, the employment of traditional learning techniques continues to lower student involvement, which has an impact on learning achievement. The think pair share technique was used to modify the learning model in order to increase learner engagement and learning achievement in Basic Electrical topics.

Literature Review

The highest level of learner involvement is a crucial indicator that needs to be taken into account in the effort to raise the learning process's level [7]. As per the aforementioned explanation, the attributes of learning activeness originate from the students and the learning process themselves. Specifically, students actively seek clarification from their teachers on any material they find unclear, they express and discuss ideas, and they are capable of completing their assignments. [8]. There are four aspects to the actual learning process: (a) students actively search out information about the process; (b) students actively interact with one another; (c) students have the chance to evaluate their own work; and (d) best use of learning resources [9].

Students share ideas and support one another in order to carry out the clearly stated procedures of the think pair share approach. There is an alternative to whole-class question and answer sessions: the think pair share method. The Think Pair Share (TPS) approach is a cooperative learning strategy that involves a few phases. Every student works and thinks independently on the assignment. In pairs, students talk with one group partner about their respective topics. Once more, the two pairs get together as a group of four. Students can present their work to the four members of the group. The think pair share method consists of five steps [10], namely:

1. The initial stage of learning begins by evoking previous understanding and motivating students to participate.
2. 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.

3. 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.
4. The share stage allows learners to present their answers together to the whole class.
5. 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

This study used a quantitative research approach as its research strategy. The quantitative technique uses mathematical models to guide its methodical approach. This approach typically makes use of ideas and conjectures pertaining to natural events. This method usually results in objective, analytical research. Researchers frequently employ a variety of methods, including tests, testing, and structured interviews, to gather data. The research's outputs include scales, graphs, or numerical data that can be mathematically processed. Class X, SMKN 1 Lhoknga, with 27 students, served as the study's sample for using the Think Pair Share (TPS) learning paradigm in fundamental electrical courses. To make data collection activities more methodical and convenient for researchers, data collection instruments are either actions utilized by researchers or can be defined as a tool used in the process [11]. In this study using observation sheets and questionnaires. Based on the qualification of the observed score of student learning activeness that has been determined, the activeness of students during the learning process is divided into four categories: very low (value scale 1), low (value scale 2), high (value scale 3), and very high (value scale 4). The Think Pair Share technique's qualification of the score categories of observation results of students' learning activity in fundamental electrical learning is shown in Table 1 [12].

Tabel 1. Categorization of Student Learning Activeness Level

No	Trend	Category
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 student’s 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 [13].

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 and Discussion

In order to boost students' learning activity during the study, the Think Pair Share (TPS) technique was specifically applied to class X TITL. By tracking student participation and gathering statistics on their level of activity, the objective is to meet learning objectives. The purpose of the data gathering procedure is to guarantee the accuracy of the information required to produce the intended outcomes. To help with this research, the observer - one of the basic electricity teachers at SMKN Lhoknga - was handed the learner involvement observation sheet. The purpose of the observation sheet was to assess student learning activity responses based on the observer's observations. The researcher provided the observer with the student activity observation sheet prior to the commencement of instruction in class X TITL. This phase is to enable the observer to evaluate the students' level of participation. Statements regarding the pupils' degree of participation in relation to preset criteria are included in the observation sheet. The researcher is acting as a teacher, and learners are actively participating in the learning process. Meanwhile, the observer watches what the pupils are doing without interfering with the learning process. The appendix contains the observations made by the observer and their outcomes.

A score has been allocated to each indication in accordance with Table 2 and the observations provided by the observers. the level of participation in relation to the body, mind, emotions, intellect, and personal life, with four question items totaling a total score of 15. The level of focus and independence, receiving a total score of 16 points across four criteria. degree of collaboration and social connection, receiving 17 points total out of 4 items. a grade of four out of one for the extent to which sources of information were used. the capacity to explain ideas and resolve problems, receiving a total score of 27 on a test consisting of seven items. The overall results for each indication are shown in the table below.

Tabel 3. Calculation Results of Each Indicator

Indicators	Trend	Percentage	Category
1. Physical, mental, emotional, intellectual, and personal engagement	$15 \geq 12 + 1 \times 2{,}6 = 15 \geq 14{,}6$	15%	Very High
2. Attention and independence	$16 \geq 12 + 1 \times 2{,}6 = 16 \geq 14{,}6$	16%	Very High
3. Cooperation and Social Relationships	$17 \geq 12 + 1 \times 2{,}6 = 17 \geq 14{,}6$	17%	Very High
4. Use of Information Sources	$4 \geq 3 + 1 \times 0{,}6 = 4 \geq 3{,}6$	4%	Very High
5. Expressing ideas and solving problems	$27 \geq 21 + 1 \times 4{,}6 = 27 \geq 25{,}6$	27%	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. These signs can be broadly categorized into five categories, with the first being personal involvement, followed by physical, emotional, mental, and intellectual involvement. The degree of independence and focus is the second indicator, while cooperation and social interactions are the third. Utilizing information is the fourth indicator, while problem-solving and concept expression are the fifth.

Based on the results of the previous analysis in Table 3, 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		Category
1	$79 \geq 60 + 1 \times 13{,}3$	$79 \geq 73{,}3$	Very high
2	$60 + 1 \times 13{,}3 > 79 \geq 60$	$73{,}3 > 79 \geq 60$	High
3	$60 > 79 \geq 60 - 1 \times 13{,}3$	$60 > 79 \geq 46{,}7$	Low
4	$79 < 60 - 1 \times 13{,}3$	$79 < 46{,}7$	Very low

Based on Table 4. the calculation results show a very good level of student learning activeness. In the very high category, the score is $79 \geq 60 + 1 \times 13.3 = 79 \geq 73.3$. This demonstrates that the degree of student engagement with the learning process has matched the markers of student learning activity. A number of factors, including the use of information sources, social collaboration, attention and independence, physical engagement, and the capacity to explain concepts and solve problems, can be used to rank the accomplishment of learners from highest to lowest. The ability to communicate ideas and solve issues has a lower level of learner participation than the use of information sources, which has the highest level of participation. Nonetheless, students' performance in every area is really high. Based on this data, student participation in fundamental electrical learning is significantly impacted by Think Pair Share.

In class X TITL, students are generally 79% engaged in learning the fundamentals of electricity. Class X TITL has risen to a very high category from the highest percentage of 100% with this percentage based on the category of students' activeness level. In summary, the findings regarding the degree of student engagement in fundamental electrical education are arranged in ascending order based on each

indicator of student activity. The first of these indications is the capacity for problem-solving and idea expression. The second factor is the degree of personal, mental, emotional, physical, and intellectual participation. The third factor is the degree of independence and focus. Fourth, social bonds and collaboration. Lastly, the application of knowledge. Table 3 shows that, generally speaking, Class X TITL has achieved the indicators of student activity extremely well, falling into the very high group.

Learners can pose both factual and analytical inquiries by using the content on fundamental electricity. In order to meet the learning objectives, this enables children to think critically when playing the Think Pair Share game, give answers, and ask questions as instructed by the teacher. Other variables at work include learners' motivation, desire, and interest in the learning process as well as the teacher's preparedness to use media and supportive tactics to promote learners' active engagement and learning abilities. Thus, students in class X TITL at SMK N 1 Lhoknga are significantly more active when they apply the Think Pair Share technique to understand basic electrical. Students' answers were analyzed by utilizing questionnaires and observation sheets to examine how the model was used in basic electricity lectures. Students are asked to complete a questionnaire both before and after the TPS model is applied in order to get their opinions on it. Participants are asked to rate only the relevant activity criteria on a 1-4 rating scale in the answer questionnaire.

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

Students' average score on the questionnaire following the application of the Think Pair Share model, which is 77.04%, indicates that they responded well to the model's application in basic electrical lessons. While it does not reach 100%, students have started to comprehend basic electrical material with the use of the Think Pair Share learning model. By modifying the implementation steps, the Think Pair Share model can be applied to overcome student learning motivation [14]. With reference to Table 2, the percentage criterion for learner response can be considered high, as the mean score on the learner response questionnaire is 77.04. This indicates that nearly all of the students in Class X ITT are enthusiastic about implementing the Think Pair Share model. Following the implementation of the Think Pair Share cooperative learning approach, students who were previously apathetic and unwilling to engage in the learning process now appear to be actively participating [15]. Apart from its positive effect on students' comprehension, the Think Pair Share learning paradigm has garnered positive feedback from the student body.

Conclusion

It may be inferred that the application of the Think Pair Share learning strategy on student learning activeness is beneficial based on the findings of study about the strategy's impact on students' basic electrical learning activity. because learning can be actively engaged by students on a physical, emotional, and intellectual level. In addition to meeting learning objectives and the predetermined measures of student learning activity. With a tendency of 79 ≥ 73.3, the overall student activeness level in fundamental electrical learning is 79%, falling into the very high group. Students responded to the Think Pair Share learning model application with a rate of 77.04%, placing them in the high group or indicating that they agreed with its application. Therefore, SMK N 1 Lhoknga pupils in class X TITL have significantly more activity in their basic electrical learning when they adopt the Think Pair Share learning technique.

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