Meta-Analysis Study of Think-Pair-Share Strategy on English Language Teaching and Learning in Indonesia

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Abstract: This study aimed to analyze the effectiveness of the Think-Pair-Share strategy towards English teaching and learning. This research used a meta-analysis study. The technique of collecting data was coding datasheets. The researcher has to code the information of the research articles of journals about using the Think-Pair-Share strategy in English teaching and learning. The measurement of effect size analyzed the data. The research findings revealed that the overall effect size of the Think-Pair-Share strategy in English teaching and learning was calculated at 1.41 or in the category of large effect. The Think-Pair-Share is an influential and effective language teaching strategy in terms of the region in Indonesia, with an effect size of 1.67 in Sumatra, 1.2 in Java, and 1.18 in Sulawesi. Besides, based on educational level, the effect size is 1.25 in Junior High School, 1.61 in Senior High School, and 0.98 in university. Meanwhile, the effect size on students' English skills is 1.84 in speaking, 1.67 in reading, and 0.9 in writing. It can be concluded that the Think-Pair-Share strategy is effective to apply in English teaching and learning because it has a high impact in any educational level and region and enhances students' English skills in many aspects. Therefore, it is recommended that English teachers and curriculum designers implement and develop a Think-Pair-share strategy in the ELT classroom to enhance students' English language skills.

Abstrak: Penelitian ini bertujuan untuk menganalisis keefektifan strategi Think-Pair-Share pada pembelajaran Bahasa Inggris. Metode yang digunakan dalam penelitian ini adalah analisis meta. Pengumpulan data dilakukan dengan menggunakan coding data sheets yang mana peneliti melakukan pengkodean terhadap informasi dari artikel-artikel penelitian pada jurnal tentang penggunaan strategi Think-Pair-Share dalam pembelajaran Bahasa Inggris. Data dianalisis dengan menghitung besar efek. Hasil penelitian mengungkapkan bahwa secara keseluruhan strategi Think-Pair-Share efektif mempengaruhi pembelajaran Bahasa Inggris sebanyak 1.41 atau berada dalam kategori tinggi. Strategi Think-Pair-Share juga merupakan strategy pengajaran Bahasa yang efektif dan berdampak yang baik dalam hal wilayah di Indonesia dengan besar efek 1.67 di Sumatera, 1.2 di Jawa dan 1.18 di

Sulawesi. Di samping itu, berdasarkan jenjang pendidikan, hasil dari besar efek adalah 1.025 pada jenjang Sekolah Menengah Bawah, 1.61 pada jenjang Sekolah Menengah Atas dan 0.98 pada jenjang universitas. Di sisi lain, besar efek pada kemampuan Bahasa Inggris siswa yaitu 1.84 pada speaking, 1.67 pada reading dan 0.9 pada writing. Dari hasil-hasil tersebut, bisa disimpulkan bahwa Strategi Think-Pair-Share efektif untuk diaplikasikan dalam pembelajaran Bahasa Inggris karena strategi Think-Pair-Share memiliki pengaruh yang besar dalam berbagai jenjang pendidikan dan wilayah dan dapat meningkatkan kemampuan Bahasa Inggris siswa dalam berbagai aspek. Oleh karena itu, direkomendasikan kepada guru Bahasa Inggris dan pengembang kurikulum untuk mengimplementasikan dan mengembangkan strategi Think-Pair-share ini di kelas pengajaran Bahasa Inggris untuk meningkatkan kemampuan Bahasa Inggris siswa.

Keywords: *Meta-analysis, Think-Pair-Share Strategies, English Teaching*

INTRODUCTION

A language is a communication tool that is very important for human life. People cannot communicate perfectly with others without language which. There are several languages in the world, one of which is English. English is used in various countries to share with others because English is an international language. Therefore, English is very important to learn in every school and is a compulsory subject to be studied worldwide, especially in Indonesia. Government Regulation of The Republic of Indonesia Number 32 the Year 2013 Article 77 concerning the education curriculum in Indonesia states that English has become part of the structure of secondary education curriculum in Indonesia so that students actively develop their life skills which include functional skills, professional attitudes and personality, and competence in certain fields. Indonesia decides English as a foreign language by studying English, which will encourage students to adapt to the current environment, making it easier for students to operate technology, work productively in learning, and get a better job supported by English language skills in the future. This study is necessary for the development of English language teaching, especially in Indonesia, because it explores the effectiveness of the Think-Pair-share strategy in various educational

institutions. According to Raba (2017), the Think-Pair-Share strategy is an effective English language teaching strategy in improving students' communicative skills. It enables them to communicate and use the English language in their daily lives. Therefore, this article explores the meta-analysis of the Think-Pair-Share strategy in Indonesia.

In learning English, students must have four skills: listening, speaking, reading, and writing. Reading and listening are called receptive skills because when teachers and students listen and read the materials, they receive the language, understand it and decode the meaning. Speaking and writing are productive skills because teachers and students use language to produce a message through speech or written text.

In the teaching and learning process, the role of the teacher is very decisive in achieving educational goals. In this case, the teacher as the spearhead of education can create a learning environment to be attractive and passionate for students with the provision of experience that the teacher has in preparing a good and systematic teaching method. In addition, the teachers must pay attention to the teaching methods they are going to choose and create a better classroom atmosphere (Asrida, 2016). The methodology is the guide for teachers about teaching students effectively. The teacher

must understand various methods, techniques, and strategies to teach English. In light, it is the teacher's duty to use method, techniques, and strategies in learning (Trinova, 2017) as well as cooperative learning that distinguish the student's affective and cognitive aspects (Kusen, 2016).

The think-Pair-Share strategy is an effective cooperative learning method that is popular in English teaching and learning. It can actively develop students' teamwork, enhance English skills, and master deep knowledge that would not have been possible if students tried to learn all the material by themselves. This method is widely applied in English teaching and learning in Indonesia and by the researchers about its effect on various language skills. The researcher found many experimental studies about using the Think-Pair-Share strategy in English teaching and learning. For example, Raba (2017) has researched interviewing the ELT teachers about the impact of the Think-Pair-Share strategy on students' oral communication at the An-Najah National University. He found that this strategy has successfully improved students' communicative abilities, generated cooperative learning, and increased the interaction among students.

Moreover, Yunarti, Yuliyanti, Syathroh (2020) investigated the application of Think Pair Share (TPS) to improve students reading comprehension of class VIII at SMPN 03 Cimahi. They concluded that after students learned reading narrative text using Think Pair Share (TPS) technique, their reading abilities are improved. Putri, Fahriany, and Jalil (2020) researched the influence of Think-Pair-Share on students' speaking ability of short monologues of MTs Khazanah Kebajikan. They found that Think-Pair-Share is an effective way to improve students' speaking ability, especially in short monologues. Pristiani (2017) researched whether there was a significant influence of using Think-Pair-Share (TPS) towards students' narrative text writing ability of SMA Persada Bandar Lampung, and there was a considerable influence it. Otherwise,

Hasibuan, Parlindungan and Sari (2018) researched the effect of TPS on students' speaking ability. The study results show that the TPS strategy improves students' speaking ability. Data from various previous studies in education are available in abundance in the form of research journals in Indonesia. Unfortunately, lack of studies that summarise and re-test the effectiveness of the result of research in Indonesia. Research with existing data can be organized and analyzed regarding the theme of the study. In addition, the impact of the study strengthens the previous research—meta-analysis such as an effective way to conduct this type of research.

Cumming and his colleagues (2012) define a meta-analysis study as an analysis of a subject in various studies with statistical and quantitative findings in different places and times. It is used to analyze major trends and variations in study results. In this study, researchers used several samples in previous research with similar topics to obtain information. The data has analyzed the magnitude of the influence in previous studies.

Some meta-analysis studies that have been carried out in English teaching and learning have been not focused on the use of the Think-Pair-Share strategy. It can be concluded that there has been no recent meta-analysis research on Think-Pair-Share. The researcher intends to research a meta-analysis study of the Think-Pair-Share strategy on Indonesia's English language teaching and learning.

METHOD

This research is categorized as a meta-analysis study. The population in this study were scientific publication articles in journals about the use of the Think-Pair-Share Strategies in the last ten years 2011-2021. The samples in this study were the articles of scientific publications on using the Think-Pair-Share strategy in English teaching and learning. The articles of research have the following categories: 1) articles made by public researchers and

students; 2) the articles used experimental research methods; 3) the articles were quantitative and statistical, which have effect size; 4) the articles published in the last ten years, 2011-2021; 5) articles about the use of Think-Pair-Share strategy in English teaching and learning; 6) the education level in the article is at the Junior High School, the Senior High School, and universities. Based on the classification of journal publication, the researchers classified the analysis into 1) the influence of think-pair-share strategy in English teaching and learning; 2) the influence of think-pair-share strategy based on region; 3) the influence of think-pair-share strategy based on educational level, and 4) the influence of think-pair-share strategy based on English skill.

The instrument used in this research was coding datasheets. The data were analyzed through the effect size technique was formulated by Becker and Park (2011).

$$ES = \frac{\bar{X}_{post} - \bar{X}_{pre}}{SD_{pre}}$$

$$ES = \frac{\bar{X}_E - \bar{X}_C}{SD_C}$$

$$ES = \frac{(\bar{X}_{post} - \bar{X}_{pre})_E - (\bar{X}_{post} - \bar{X}_{pre})_C}{\frac{SD_{preC} + SD_{preE} + SD_{postC}}{3}}$$

$$ES = \frac{2r}{\sqrt{1-r^2}} ; \sqrt{\frac{x^2}{n}}$$

$$ES = t \sqrt{\frac{1}{nE} + \frac{1}{nC}}$$

Cohen (1998), as cited in Gignac & Szodorai, (2016), provides a reference to the effect size which indicated a intervention of effect size, ES = 0.2 for small effect size, ES = 0.8 for medium and ES = >0.8 for large size effect.

RESULTS AND DISCUSSIONS

The result of the analysis is as below:

Table 1. Meta-Analysis of Think-Pair-Share articles.

No	Code	ES
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1	W1	0.89
2	W2	0.72
3	W3	1.21
4	W4	0.97
5	W5	0.6
6	W6	0.89
7	W7	1.26
8	W8	0.66
9	W9	0.62
10	W10	1.6
11	W11	0.5
12	W12	0.87
13	S13	0.99
14	S14	2.27
15	S15	0.65
16	S16	2.91
17	S17	1.01
18	S18	2.64
19	S19	0.91
20	S20	3.06
21	S21	3.55
22	S22	0.43
23	R23	0.98
24	R24	0.04
25	R25	0.86
26	R26	1.66
27	R27	2.5
28	R28	1.89
29	R29	3.1
30	R30	2.29

The research findings reveal that the overall average effect size of the Think-Pair-Share strategy in English teaching and learning is 1.41. This figure means that the treatment of the Think-Pair-Share strategy in English teaching and learning is competent to increase students' learning outcomes in the experimental group by an average effect size of the Think-Pair-Share Strategies in English teaching and learning is 1.41 times the magnitude of the influence of control group. It explains that English teaching and learning using the Think-Pair-Share Strategies is effective for teaching and learning activities with a high effect size category. Thus Think-Pair-Share Strategies can influence students in English teaching and learning.

DISCUSSIONS

1. The Influence of Think-Pair-Share Strategy in English Teaching and Learning

The research results show that thirty articles of the journal have been

analysed, nineteen articles have effect size in the large category, ten articles with medium effect size category, and one article has small effect size. The largest effect size comes from the result of research about the effectiveness of the Think-Pair-Share strategy towards students' speaking skills. In contrast, the smallest effect size is obtained from the study results about the influence of the Think-Pair-Share strategy on students' English writing skills. However, these results cannot be concluded about which the most English skill influences much through Think-Pair-Share strategy because each value of effect size is different.

2. The Influence of Think-Pair-Share Strategy Based on Region

The average magnitude of the influence of Think-Pair-Share based on the region was divided into three. The articles analyzed by the researcher mostly from Sumatera, Java, and Sulawesi, and the number of research results assigned Sumatera as the highest position with effect size 1.68 times control group compared to other regions in Indonesia. Java and Sulawesi also have the high category of effect size with 1.23 and 1.18. The results describe that all regions in Indonesia analyzed by the researcher arranged the Think-Pair-Share strategy as an effective strategy in English teaching and learning with different geographical backgrounds.

Figure 1: The Influence of Think- Pair- Share Strategy Based on Region

3. The Influence of Think-Pair-Share Strategy Based on Educational Level

Regarding the results of the effect size of Think-Pair-Share strategy in English teaching and learning based on the level of education, it indicates that TPS can increase the learning outcomes of students in the experimental group by 1.25 for junior high school students, 1.61 for senior high school students and 0.91 for university students. It means that the application of the Think-Pair-Share strategy to the three types of level in education has a large influence in the same category with a fairly large criterion of effect size verified Think-Pair-Share strategy is effective and appropriate for any educational level. This result is in line with Hardyanti and Maretha (2020) research about students' perception of the use of the Think-Pair-Share strategy on English language teaching at Senior High School students. Most students have a perception about their lack of ability when they speak in English, but after the use of the Think-Pair-Share strategy, 37% of students feel confident to show their English ability.

Figure 2: The Influence of Think-Pair-Share Strategy Based on Educational Level

4. The Influence of Think-Pair-Share Strategy Based on English Skill

Based on the study, students' English skills through Think-Pair-Share were calculated from a total of thirty research articles carried out. Each article analysed has one English skill category. The analysis results indicate that the average value of the effect size based on all types of students' English skills is 1.42. The largest effect size is speaking which reaches 1.84, while the lowest category is writing with 0.9.

The think-Pair-Share strategy has the greatest influence on students' speaking ability in English teaching and learning. The relation of learning using the Think-Pair-Share strategy towards students' speaking achievement has an extreme effect size on with 1.84. Speaking skill is an important aspect of language that the English learner should study and acquire to communicate. Interaction skills involve making decisions about communication, such as: what to say, how to say it, and whether to develop it following one's intention. Interaction skills involve the ability to use language to satisfy particular demands. This result is in connection with Cahyono and Widiati (2011) that said speaking skills have to apply in a communicative approach. Think-Pair-Share is one of the cooperative learning strategies that trained students to express their opinion and respect the opinion of others in the English teaching and learning process.

Ma'arif and Ashlihah (2017) show that 84.81% of students responded positively to the Think Pair Share strategy in the Speaking course.

According to the research data, the effect size of the application of the Think-Pair-Share strategy on students' reading skills in English teaching and learning is also in the high category with 1.67. Karademir and Ulucinar in Chamba and Avila (2021) considered reading as a step-by-step line of action with basic elements such as decoding the message, conceiving the message, analyzing it, and integrating the whole idea the text. The think-Pair-Share strategy actively encourages and motivate students in thinking, exploring, and sharing their opinion and ideas from reading activities. It is shown by the result of the study conducted by Dwigustini and Widiya (2020) that recommended English teachers to keep using the Think-Pair-Share strategy as a solution to teach students' reading skills.

The result of the interpretation of the study contributes to the influence of students' writing skills also in high effect with the effect size of 0.9. It reveals that the Think-Pair-Share strategy increases the level of students' writing skills. The think-Pair-Share strategy is one of the cooperative learning strategies that can build a supportive and collaborative atmosphere between teachers and students in the learning process. Furthermore, students are encouraged to be more active to look for the information and the material. It builds positive relationships among the students as well. Meanwhile, by continuously discussing and sharing, the students can develop their knowledge about the lesson.

The results of studies analysed thirty various articles in published journals. However, the writer did not find any categories of the articles that fulfilled the criteria for using the Think-Pair-Share strategy in English teaching and learning

to enhance students' listening skills in 2011-2021. The analysis denotes that the Think-Pair-Share strategy is rarely used for English teaching and learning to improve students' listening ability.

Figure 3: The Influence of Think-Pair-Share Strategy Based on Educational Level

CONCLUSION

Based on the results above, the Think-Pair-Share strategy is effective in English teaching and learning. It implies that the use of Think-Pair-Share as a strategy in English teaching and learning can be a solution to solve the student's difficulties in many skills of English ability and enhance students' learning outcomes. As for the theories, implementing the Think-Pair-Share strategy allows students to be actively involved in the learning process to remember and understand the subject matter. Therefore, according to the effect size results, the Think-Pair-Share strategy has a good impact if applied in any educational level, any region, and can enhance students' English skills in many aspects.

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