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**A COMPARATIVE STUDY OF PROBLEM SOLVING
METHOD AND LANGUAGE GAME IN TEACHING
SPEAKING**

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ABSTRACT

This research aimed to find whether or not there was any significant difference in the speaking achievement of students taught by using language games, compared to those taught by using a problem solving method. This research applied a quasi-experimental design. The sample consisted of 50 students who belong to two groups. The technique of taking sampling was systematic random sampling. The instrument of the research was a structured interview. SPSS 22.0 was used to analyze the data. The researcher found that there was any significant difference in the speaking achievement of the students taught by using language games, compared to those taught by using a problem solving method. In other words, language game was more effective than problem solving method to improve the speaking skill of the fourth semester students of English Study Program at State Islamic Institute of Palopo. The mean score in the language game group was higher than the mean score in the problem solving method group (69.9 > 43.2). The difference of those mean scores was statistically significant; it is based on t-test value at a significant level 0.05, the probability value was lower than the significant level (0.00 < 0.05).

Keywords: *problem solving method, language game, teaching speaking.*

INTRODUCTION

1 Speaking is an interactive process of constructing meaning that involves producing, receiving, and processing information. To master the speaking skill, Indonesian learners must practice English continuously, particularly in pronouncing English words like a foreign

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language and they should know the English sounds, structure, vocabulary, and culture subsystem of the language. Through the learning process, learners can master the speaking skill which consists of many parts of activities like games and role play.

Nunan (1991) stated that learning to speak in a second or foreign language will be facilitated when learners are actively engaged in attempting to communicate. Teaching speaking emphasizes activities to make learners active and creative. Rahman (2007) stated that in a speaking class, students should be taught how to speak. The components of English speaking skills that should be given and studied in an English speaking class are pronunciation, vocabulary, grammar, fluency, accuracy, and comprehension. Speaking is the most important skill because it is one of the abilities to carry out a conversation on the language.

It is very important that learners are given a great deal of contextual support in the initial stages of learning to speak. It is also important that they are made aware of the contexts in which the language being presented occurs. In foreign language education, teachers use different strategies in order to find an appropriate way to help their learners to reach a specific goal such as learners' development of speaking skills. It is necessary to maintain motivation during the process by carrying out engaging classes that keep students interested in the lesson. Language games are strategies that can help both teachers and learners to increase interest concerning language learning, for instance, to improve the four language skills (Mejia & Parra, 2015).

Richards, Platt and Platt (1999) defined a game as an organized activity that usually has the properties, such as a particular task or objective, a set of rules, a competition and communication between players by spoken and written language. Games are activities that can produce intensive language practice because they remove the tension that students usually have in language classes. Participants follow prescribed rules that differ from those of reality as they strive to attain a challenging goal.

Another method which can be applied in teaching speaking is a problem solving method. According to Wood (2003), problem solving methods are the steps we use to find solutions to problems and issues. Moreover, Dean (2013) mentioned that problem-based learning is the pinnacle of using problem solving as a teaching strategy. It is an effective teaching strategy where it incorporates three essential elements. Firstly, learners need to understand what they are intended to learn. Secondly,

teachers need to explain why problem solving is being used to teach the content, and thirdly teachers need to explain how they expect students to interact with themselves and other students. Zoesthornton and Jones (1994) revealed that in problem solving method, teachers provide the appropriate amount of knowledge to establish problems and learners understand, clarify, and make an attempt to formulate one or more solution procedures so that they involve strategic competence and motor perceptive skills. Therefore, they become noticeably more creative and communicative to use language

Manoppo (2004) did a research focusing on improving the speaking skill of the second year junior high school students and found that the use of language games in the teaching of speaking skill could improve the learners' speaking skill and it could be seen from their ability to ask and answer questions as well as to produce comprehensible sentences in the form of spontaneous responses, approval, and appreciation which created a community of learning and increased students' self-confidence.

Based on the background above, this research was conducted to investigate whether there is a significant difference in the speaking achievement between the learners taught by using language games and those taught by using problem solving method?"

LITERATURE REVIEW

Language Game in Teaching Speaking

Games are student-focused activities requiring the active involvement of learners. Crookall (1990) stated that learners and teachers change their roles and relations through games and learners are encouraged to take an active role in their learning process. As a result, games provide learners with a chance to direct their own learning. Lukianenko (2014) stated that by using games, teachers can create contexts that enable unconscious learning because learners' attention is on the message, not on the language. Therefore, when they completely focus on a game as an activity, students acquire language in the same way that they acquire their mother tongue, that is, without being aware of it (Cross, 2000, p. 153).

Kellough and Kellough (1999) state that games can be powerful tools. Games can have some purposes, namely: (1) to add variety and change of pace, (2) to enhance students' self-esteem, (3) to motivate students, (4) to offer a break from the usual rigors of learning, (5) to provide learning about real-life issues, (6) to provide skill development

in including thinking, (7) to provide skill development in verbal communication and debate, (8) to reinforce convergent thinking, (9) to review and reinforce subject matter learning, (10) to encourage learning through peer interaction, (11) to stimulate critical and creative thinking, (12) to stimulate deductive thinking, and last but not least, (13) to teach both content and process.

Problem Solving Method

According to Nafees (2011), problem solving is a process to solve problems through higher order cognitive operations of visualizing, associating, abstracting, comprehending, manipulating, reasoning and analyzing. It encourages students to promote and construct methods through practice, and reflect to solve problems (Weber, 2008).

Problem based learning needs a student-centered learning environment in which a student is the central figure of the learning process. The individualized, self-directed learning provides learners with independence to decide about learning themselves under the teacher's guidance. The learning objective is not to receive the learning content without any active participation and reproducing it with memorization. It is the dynamic and innovative engagement of learners in group work and in individual study activities (Tick, 2007).

Therefore, teachers must be clear about what they want in their students to achieve as they structure circumstances that are both challenging and achievable for a wide range of learners. Teachers are required to be able to adopt instructional approaches and activities to encourage students' development of basic abilities, rational skills, and personal qualities (Crunkilton, 1992). As Weber (2008) declared, a teacher must have a solid understanding of how to develop the ability of arguments in his or her students to solve a problem. Stephen and Gallagher (1993) have given four critical structures of problem-based learning:

1. **Engagement.** A problem addresses real matters that attribute to the larger social background of the learners' personal world and increases values and ideas relevant to the content area.
2. **Inquiry.** It is in need of investigation to describe and improve the questions and ideas related to the problem.
3. **Solution building.** In problem-based learning, teachers are facilitators and solutions are worked out by learners themselves. Learners take part in the inquiry, observation and investigation of hypotheses. They generate conclusions that are reliable and

take ownership of their solutions. Teachers promote learning by acting as models/ representative behaviors they want their learners to adopt.

4. Reflection. The assessment offers a structure of reflection as a reliable remedy to the problem, the emphasis on the difficulty of both the subject-matter concepts within the problem and cognitive process, given to perform as standards for thinking.

RESEARCH METHODOLOGY

This study was quasi-experimental through randomly existing classrooms (not individual) assigned to treatments (Gay, Mills & Airasian, 2009). The treatment involved a two-group comparison in design. The experimental group 1 was treated by language game and the experimental group 2 was treated by problem solving method. Pre-test and post-test were administered to all groups.

Research Participants

The population of the study was 120 university students at one of the state universities in Palopo city, Indonesia. The sample of this research was 50 students of the fourth semester of the English Education study program. The technique of taking sample was systematic random sampling. The undergraduate students involved in this research were all in the same academic year, the same proficiency level and taught by the same English lecturer. The researchers wanted to give or make the stronger basic so that they would not have the serious problem in learning the English language.

The Instrument of the Research

The first phase was conducting preliminary observation to know the information about the real condition of the class, the student's problem and their performance in learning and also the lecturer's problem in doing activities in the classroom. Based on the result of preliminary observation, the researcher conducted a problem solving method and language game because the students had a problem with speaking skills. The researcher used a structured interview as the pretest and posttest. There were 6 questions namely:

1. Do you agree with the national final examination as the determiner of students pass in the final exam? Why?
2. What will you do to avoid the natural disasters?

3. What will you do to keep our campus clean?
4. What will you do to increase your speaking ability?
5. What will you do to decrease your anxiety in speaking?
6. Do you want to be a brilliant student? Why?

Validity and Reliability

The researcher herself administered the try-out of the test. In the present research, the construct validity was maintained by asking the experts' opinions. The experts changed, revised and deleted the test items. They deleted four items and revised six items.

In terms of reliability, the researcher involved two raters to score students' speaking performance. To obtain an acceptable level of inter-rater reliability, the researcher trained two raters. The training was focused on the scoring rubric which outlines the criteria to be used in judging students' speaking performance.

Technique of Data Collection

The pre-test was intended to find the learners' prior speaking ability. The researcher used a tape recorder to record the learners' speaking performance during the oral test, and then transcribed and scored the performance. After giving the pre-test, the treatments were conducted for six times in both groups. The posttest was given to the learners after the treatments

The procedures of learning speaking through the language game and problem solving method were illustrated as follows:

Table 1. Procedures for Conducting Treatments

Language Game Group	Problem Solving Method Group
1. The researcher introduced the material about language games i.e., trainee reporter game and then the researcher gave an interview to each learner and asked some vocabulary.	1. The learners were divided into eight groups.
2. The researcher explained how to play a trainee reporter game. The trainee reporter game was a game in which one learner acts as trainee reporter who was curious to get some information from the learners who pretended to be the actors of an event or a scene in a situational picture and focus on an interview-like dialogue.	2. The researcher wrote the topic on the board to be discussed.
	3. Each learner gave his or her comments to take a solution to the problem related to the topic.
	4. The researcher gave corrections to the learners' mistakes to improve the learners' speaking accuracy, fluency, and comprehensibility.
	5. After practicing the material, the researcher gave some comments about all of the elements of

practicing asking and answering questions, adopting other's points of view, and reporting it to the "audience".

3. The learners learned about the ill-grammatical sentences and the mispronounced words of the reporters and then the researcher discussed with the learners.

speaking to the learners. Thus, the next meeting they could improve their speaking better and avoid the mistake.

Technique of Data Analysis

The data analyzed quantitatively by using inferential statistics SPSS 22.0. The achievement tests were double checked by the researcher and her colleague.

RESULTS AND DISCUSSIONS

Results

The Mean Score and Standard Deviation of Students' Speaking Achievement

As it has stated above, after tabulating the frequency and the percentage of the students' score, the researcher calculated the mean score and the standard deviation of the students' scores of both language game group and problem solving method group.

The Mean Score and Standard Deviation of Students' Pre-test and Post-test

In the tables below, the researcher presented the mean score and standard deviation of the students' pre-test and post-test for the language game group and problem solving method group.

Table 2. The Paired Sample Test

	Group	Mean	Standard deviation
Pre-test	Language game group	31.8	9.72
	Problem solving method group	26.5	8.03
Post-test	Language game group	69.0	13.81
	Problem solving method group	43.2	8.39

The table showed that the mean score of the students' pre-test of language game group was 31.8 and the standard deviation was 9.72; problem solving method group was 26.5 and the standard deviation was 8.03. The mean score of both groups were different after the treatment executed. The mean scores after the treatment were 69.0 for the language game group with standard deviation of 13.81 and 43.2 for problem solving method group with standard deviation was 8.39; it means that the mean score of language game group is higher than problem solving method group ($69.0 > 43.2$).

The Mean Scores and the Standard Deviations of the learners Pre-test and Post-test in term of Accuracy

Table 3. The Paired Sample Test

	Group	Mean	Standard deviation
Pre-test	Language game group	2.16	0.68
	Problem solving method group	1.84	0.62
Post-test	Language game Group	4.56	0.96
	Problem solving method group	3.00	0.76

Table 3 indicates that there was an improvement of the students' post-test in terms of fluency of the language game and problem solving method group. It can be seen the mean scores of the pre-test 2.16 and post-test 4.56 for language game group and also the pre-test 1.84 and the post-test 3.00 for the problem solving method group. The mean score of the language game group post-test in terms of accuracy is higher than that of the problem solving method group.

The Mean Scores and the Standard Deviations of the learners' Pre-test and Post-test in term of Fluency

Table 4. The Paired Sample Test

	Group	Mean	Standard deviation
Pre-test	Language game group	1.84	0.62
	Problem solving method group	1.64	0.56

Post-test	Language game group	4.04	0.84
	Problem solving method group	2.56	0.65

1 Table 4 indicated that there is an improvement of the students' post-test in terms of fluency of the language game and problem solving method group. It can be seen on the mean score of the pre-test 1.84 and post-test 4.04 for language game group and the pre-test 1.64 and post-test 2.56 for the problem solving method group. In fact, the mean score of the language game group's post-test in terms of fluency is higher than that of problem solving method group.

1 ***The Mean Scores and the Standard Deviations of the learners' Pre-test and Post-test in term of Comprehension***

Table 5. The Paired Sample Test

	Group	Mean	Standard deviation
Pre-test	Language game Group	1.72	0.73
	Problem solving method group	1.32	0.55
Post-test	Language game Group	3.84	1.02
	Problem solving method group	2.24	0.52

Table 5 indicates that there is an improvement of the learners' post-test in terms of comprehension of the language game and problem solving method groups. It can be seen the mean score of the pre-test 1.72 and post-test 3.84 for language game group and the pre-test 1.32 and post-test 2.24 for the problem solving method group. In fact, the mean score of the language game group's post-test in terms of comprehension is higher than that of problem solving method group.

Paired sample test of pretest of the language game and problem solving method group is shown in Table 6 below.

Table 6. Paired Sample Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
PRETES T	Equal variance assumed	2.758	.103	-2.077	48	.043	-5.240	2.523	-10.313	-.167
	Equal variance not assumed			-46.357	4	.043	-5.240	2.523	-10.318	-.162

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With the level of significance (α) = 0.05; the degree of freedom (df) = 50 with $N_1 + N_2 - 2 = 48$, the result of the t-test is presented in table 6. It can be inferred the Sig (2-Tailed) value is 0.00 in the experimental group whereas the Sig (2-Tailed) value is 0.43 in the comparison group. These values are less than .05. Thus, it can be concluded that there is a statistically significant difference between the means which are not likely due to chance but due to language game treatment. The paired-sample statistics table indicated that the means of the language game group's pretest and post-test are higher than those of the solving method group. When we look at the significance levels (0.00 - 0.43) for both groups, it can be said that there is a significant change between two test scores taken at different times by the same groups of the students.

To conclude, the language game is better than problem solving method because language game made students active, particularly in learning and teaching activities and livelier atmosphere, more attractive and more fun learning. This finding is in line with Kim (1995) believing that through playing games, learners can learn English in the same way as children learn and say their mother language without being aware they

are studying; thus without stress, learners can learn a lot in learning the get language. Nurisnaini (2000) found that games and songs are effective strategies in improving the learners' participation in the classroom activities.

Discussion

The results provided substantial effects of language game usage on students' academic success in EFL speaking courses. It supported the previous study by Mejia and Parra (2015) who revealed that the benefits of the language game technique helped students to find reasons for learning their own language and they were not forced by the teacher or parents. They need to remember complicated grammar rules or verbs from a book that has been forgotten for some time since they can learn it fully. Chen (2005) agreed on the idea that language games are related to the utilization of enjoyable activities in English classes which can provide a large percentage of meaningful practices of a target language. Lukianenko (2014) stated that even though games are often associated with fun, we should not lose sight of their pedagogical value, particularly in foreign language teaching and learning. Games are effective as they create motivation, lower students' stress, and give language learners an opportunity for a real communication

Lewis and Bedson (1999) revealed that language games are different from other classroom activities given the fact that most games are characterized by having certain rules learners must follow to be part of the game, and due to this, teachers can set some rules that allow learners to put into practice their abilities in a foreign language. Therefore, in my opinion, teachers are key figures in a language class. He or she is the one who sets the tone for learning activities. Teachers develop their art by using carefully planned, fine-tuned lessons that reflect an understanding of many different teaching techniques. Each technique is skillfully applied to gain desired intellectual, social, affective, or kinesthetic skills. The best teachers know the tools of their craft and when and how to use them, being aware that both what they are doing and how they are doing it affect their students. They are constantly aware that the decisions they make affect the intellectual, attitudinal, and psychomotor skills of their learners. Language games are the strategies that can help both teachers and learners to increase interest concerning language learning, for instance, to improve the four language skills.

In process of learning speaking, many obstacles were faced by students such as there was a lack of resources needed to make English

language lessons more effective and practical for learners. Moreover, they were still lack of vocabulary, practice, motivation, and confidence because they always thought that speaking is one of the complicated and difficult skills. Research findings must be reviewed in the context of their potential limitations. It might be misleading to generalize results due to sample size and duration of the study. Future studies that will be carried out for a longer time with more participants in a larger context can give more information about language games and problem solve method effect for developing other language skills in EFL settings.

Conclusion

Considering the problems, the objectives and the findings of the study, the conclusion is drawn as follows:

1. There was a significant difference between using language game and using problem solving method on learners' speaking skills.
2. The mean of the language game group's pretest and post-test showed significant difference.
3. The mean of problem solving method's group pretest and post test showed a significant difference.

Theoretically, this research supports the theory and findings of some scholars who said that language game is effective to improve speaking skill. Practically, the researcher began to increasingly feel the need to adapt her teaching style so that she can interact effectively with her learners in a more friendly way. For English lecturers, this research can be functioned as a reference to improve their teaching and construct a more appropriate teaching technique which can make learners more active.

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