

# THE EFFECTIVENESS OF GAME-BASED LEARNING MODEL IN THE JAVANESE LANGUAGE CLASS

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#### Abstract

**Purpose of the study:** the objective of this study was twofold. Firstly, it aimed to examine the effectiveness of game-based learning in the Javanese language class for junior high school students. Secondly, it was intended to investigate the responses of the students upon completing the class that incorporated the game-based learning.

**Methodology:** This experimental research employed the post-test only control design. The data were collected from documentation, questionnaires, and evaluation tests. Further, the data were examined using a t-test.

**Main Findings:** The game-based model is effective for the Javanese language class. The average score test of the students taught by game-based learning reached 72.6. On the other hand, those participated in a class with different treatment scored 64.5 on average. Such a difference was significant, given the output of the independent sample T-test, which was from the result of analysis using the SPSS software.

**Applications of this study:** This study was beneficial to change the paradigm of the old-fashioned, boring Javanese teaching and learning. It promoted the idea of fun teaching and learning. On top of that, the implementation of the learning model was effective to enhance students' The Javanese language skills, specifically in Central Java, East Java, and the Special Region of Yogyakarta.

**Novelty/Originality of this study:** Learning models for local content subjects, such as the Javanese language, were still limited since the topic did not attract the attention of many researchers. Testing the game-based learning was among the alternatives of interesting learning methods to stimulate students to learn their local language, and thus, preserve the language in society.

Keywords: Effectiveness, Javanese, Language, Model, Teaching, Games, School.

# INTRODUCTION

Indonesia consists of so many different tribes. Some of them are Javanese, Sundanese, Batak, Minangkabau, Buginese, etc. One of the biggest is Javanese. Each of the tribes may have their native languages that are unique to each other, and for Javanese, they practice the Javanese language. The Javanese language has the most speakers in Indonesia totaling 84.3 million speakers; it ranks 11th as the language with the most speakers in the world (Wati, 2016). The Javanese language is commonly used in Central Java, East Java, and the Special Region of Yogyakarta. A study by Quinn (2011) has found that the Javanese language is also used by some Javanese who migrate to North Sumatera, Lampung, and Papua. Javanese overseas can be found in other countries, such as New Caledonia, Netherland, and even in South America, specifically Suriname.

The Javanese language is one of the priority languages recognized by the UNESCO. UNESCO has five main programs distributed in the sectors of education, natural sciences, social studies and humanities, culture, as well as information and communication. Among the programs is the preservation of the local language. UNESCO has emphasized the importance of mother language preservation; the notable example is the commemoration of the international mother language day on February 21st. The goal of this annual observance is to instill cultural values, its primary concern revolves around language and literature preservation and development, including regional alphabets or characters

Throughout long history, the Javanese language has developed over time, from the old Javanese, middle Javanese, and the recent modern The Javanese language. The teaching of this language has started before the independence of Indonesia until today, with its ups and downs. During the colonial era, other than being one of the subjects taught, the Javanese language was the medium of instruction. The Indonesian language replaced the Javanese language as the medium of instruction after the independence of Indonesia. Afterward, the Javanese language was used as the language of instruction in elementary schools in the beginner level. This language is taught at elementary, junior high, senior high levels, and it is equivalent. Several universities offer the Javanese language as a study program.

The result of field observation has revealed a decline in the interest of using the Javanese language and the speakers of the language. Tirto Suwondo, the head of Balai Bahasa (the Center for Language) Yogyakarta, claims that the local language mastery is now exclusive to the older generation, while the young generation, especially those living in urban areas, prefers using the Indonesian language. He asserts that the Javanese language is unlikely to become extinct, but there will be a decline in the number of speakers of this language. The Javanese language will remain alive as long as the speakers keep communicate using the language.



The Javanese language is the nation's cultural asset; it has its development potential and it is worth investigating. Chances of preserving the use of the Javanese language amidst the society are also high, considering the advantages of the language, e.g., local wisdom of the language used by people as a guideline of their family life and community life. Moreover, the language contributes to the development of children's characters. It is not surprising that Indonesia has a strong commitment to the development of the Javanese language; one notable example is incorporating the language as one of the taught subjects at schools.

The Javanese language is taught at the elementary level to the senior high and it's equivalent in three provinces, i.e., Central Java, East Java, and the Special Region of Yogyakarta. A preliminary interview with students and teachers of a junior high school in Semarang, on 7th, 15th, and 18th of May 2019 revealed several issues in the Javanese language teaching, such as students' lack of motivation in participating in the class. Some students were not actively participated in every activity. They did not pay attention to the teacher's explanation and talked to their friend sitting next to them since they got bored with the Javanese class.

The above situation is in line with the result seen in <u>Utami and Kurniati's research (2007)</u> that the implementation of the Javanese language class is yet satisfying. It is shown that the learning process does not emphasize students' communication development. Rather, the class still applies the structural approach as its evaluation and learning processes are oriented towards language mastery. Most of the applied learning strategies do not incorporate the students' active engagement, specifically in listening and speaking activities. The teachers tend to read aloud the text from the book in the listening class, while the speaking class is mostly about monologues.

Many Javanese linguists have investigated the loss of The Javanese language among the young generation. Based on the result of the written test and in-depth interview, <u>Subroto (2008)</u> points out that most teenagers are unable to communicate using a proper Javanese language. The outcome of the written test reveals that young Javanese have a poor understanding of the collocations in *ngoko* (common), *krama* (moderate-polite), and *krama inggil* (high - polite). This also applies to the situation when they communicate using the *krama lugu* and *krama alus* style (these styles refer to the manners the Javanese people use in speaking with older people).

Grounding from the aforementioned discussion, efforts in promoting stimulating The Javanese language learning are essential. Of the instances is the improvement of the new learning model that should be engaging and meaningful, or widely known as joyful learning. An example of the implementation of this learning model is the integration of games. The roles of games in language teaching are similar to a language laboratory. Students can use various vocabularies, construct more sentences, and incorporate many of the Javanese language styles. During the game, the students are allowed to converse, tell a story, deliver their argument, convince others, and many activities. The use of games is also beneficial as it allows the students to try new vocabularies, thus enriching their vocabulary spans and comprehension. Birova (2013) argues that students, regardless of their ages, are excited about every kind of game. By integrating games in learning creates a fun atmosphere for the students to practice communication using a particular language in the class. To conclude, incorporating games in learning is more effective than any other method.

This research aims to examine the effectiveness of the game-base learning model in learning The Javanese language, especially in Javanese speech level material. Several studies show that the gaming method could improve English language skills. Game is effective to be applied in English language grammatical learning (Ashok, Revathi & Saminathan, 2013). The language of the game could improve students' English speaking skills (Amrullah, 2015). However, Latuconsina & Susiawati (2018) state different research findings. They argue the language of the game is not effective in Arabic language reading skill learning. Therefore, there is a need for an effective test of game-based learning model in studying the local language, such as the Javanese language. Heretofore, there have not been many types of research interested in developing the local language learning model. They preferred to develop the international language learning model, such as English. In fact, in the real field, The Javanese language still becomes a cause of concern and does not meet satisfaction (Utami & Kurniati, 2007). Teachers have not applied interesting and innovative learning methods so students felt bored and surfeited in learning Javanese (Masjid, 2016).

## LITERATURE REVIEW

The Javanese language teaching, specifically in the lesson of the *Javanese speech levels* often implements conventional learning. In this context, the conventional model refers to the model used by the majority of teachers. Based on the field observation, most teachers opt to use the direct instruction method. This method emphasizes the one-way communication (Sidik & Winata, 2016). Furthermore, the direct instruction method is, by nature, teacher-centered, meaning that the teachers are the source and the main provider of information. Despite the integration of a variety of approaches (such as lecturing) and media in the direct instruction, the focus of this learning model lies in the process of receiving knowledge or the lesson, rather than discovering and constructing knowledge. Participating in such classes makes the students get bored and less interested to enjoy the class and consequently, this situation negatively affects their achievement.

An innovative learning model in the Javanese language class is essential to cope with the issues mentioned above. <u>Pateliya (2013)</u> defines the term "learning model" as the instructional design depicting a particular process. It functions to create an engaging situation that stimulates the students to interact effectively, leading to the development of their



behavior. <u>Setiawan and Handayani (2017)</u> point out that a learning model is a framework containing the stages in learning, from the beginning until the end of the class, which is crucial in achieving the learning goals. <u>Joyce and Well (1996)</u> assert that the learning model is a description of a learning environment.

The model that will be implemented in the Javanese language class should be engaging and meaningful, or well-known as joyful learning. An example of the implementation of this learning model is the integration of games. Wright et al. (2006) argue that games are entertaining, fun, and at the same time, challenging. These activities enable students to play and interact with their peers. According to Hadfield (2003), games are a set of activities with its rules and goals with the touch of entertaining elements. Incorporating games in a class can contribute to vocabulary enrichment (Huyen & Nga, 2003). These activities also bring positive energy to the students (Amrullah, 2015). Games have other roles as the media of cognitive (Lai et al., 2018), physical, socio-emotional, and language development (Vygotsky, 1967), (Bergen, 2002), (Lestari & Prima, 2017). Carrier (as cited in Sánchez et al., 2007) opines that using games is significant for the class, as the activities enable students to use their language in an informal situation without feeling any pressure.

Other benefits of incorporating games include creating flexibility in the class, preventing monotonous learning, improving student motivation, enabling students to communicate using their language without them noticing, stimulating the student participation, and instilling students' confidence. Also, the integration of games allows the teachers to change their role from being a formal instructor to the class moderator or facilitator. Zhu (2012) also notes that applying games in the class help the students enjoy communicating in the target or taught language.

Zhu (2012) has mentioned the use of several types of games in classroom learning cited from various sources (Carrier, Ellis, Harmer, Kallsen, Kliped, MacCallum, Porter, Stren, Willis). The games involve (1) guessing games, (2) picture games, (3) sound games, (4) mime, (5) debates, (6) jigsaw games, and (7) role plays. Buttner (2013) also mentions some games that are capable of improving students' language skills, e.g., card games, word links, guessing games, hot potato, marking the sentence game (determining which sentence without a subject), label it in time, and college quiz bowl. Furthermore, Djuanda (2006) adds more games applicable in language classes, such as (1) Chinese whisper, (2) show and tell, (3) detective game, (4) guessing game, (5) tin can telephone, (6) treasure hunt, (7) mark the sentence, and (8) discourse game. In summary, several experts previously agreed that the integration of games in learning is important to enhance communication skills.

Different researchers have different considerations underpinning their studies. Several studies have examined the implementation of games in classroom activities (Purwanti et al., 2012; Gelisli & Yazici, 2015; Dewi et al., 2017). In their study entitled Group Guidance Model with Fun Game Integration to Reduce Speaking Anxiety, Purwanti et al. (2012) examine speaking anxiety that the students often experience. The study employs the R&D method. The output of this study is a model for group learning, namely the fun game model. By utilizing the advantages of the game to create a fun atmosphere, the game is successful to reduce the anxiety of the students.

Another similar study is conducted by Gelisli and Yazice entitled "A Study into Traditional Child Games Played in Konya Region in Terms of Development Fields of Children." This research discusses the types of games in the Konya region. It is revealed that 60 traditional games, associating with children's development, are incorporated into learning activities. Its main functions are to stimulate children's motor, cognitive, linguistics, and socio-emotional aspects.

<u>Dewi et al. (2017)</u> also investigate the integration of communicative games to improve speaking skills. The procedures of this classroom action research involve planning, treatment, observation, and reflection. According to the result, communicative games can improve students' motivation, shown by an increase in the students' speaking scores. Before the treatment, the students' score was 60.42, and these later increases to 78.77.

Based on the theory and the argument, it could be drawn a hypothesis that there is a difference from the students' skills between those taught by game-based learning model and those taught without game-based learning model. Here are the complete hypotheses: H0: There is no difference in Javanese learning outcomes between the experimental group taught by game-based learning model. Ha: There is a difference in Javanese learning outcomes between group taught by game-based learning model and control group taught without game-based learning model.

#### **METHODOLOGY**

This experimental research relies on the post-test only control design. There were two student groups selected randomly, consisting of the experimental class and the control class. The experimental class was taught using game-based learning. On the other hand, the students in the control class were taught by the direct instruction method. The effectiveness test was carried out in selected junior high schools in the city of Magelang. <u>Sugiyono (2011)</u> illustrates the concept of the post-test only control design in the following graphic.





Description: R: experimental and control classed selected randomly, X: treatment, O1: the experimental group (the group with the treatment), O2: control group (the group without the treatment)

Methods of data collection consisted of documentation, questionnaire, and test. First, several printed documents related to The Javanese language class, i.e., learning materials about *Javanese speech level*, syllabus, lesson plan, curriculum, assessment, and textbooks, were collected as the data source. Notes from the field observation were also gathered. These printed documents functioned as the basis for designing the concept of the game-based learning model. Second, a questionnaire was distributed to the students to find out their responses after being taught in a class with the integration of game-based learning. Third, a performance test was administered to generate the data on the learning outcomes of both the experimental and control classes.

The research subject involved 52 students of a randomly-selected junior high school in Magelang, i.e., SMP 6 state junior high school in Magelang. The selected students were from 8B and 8C Classes. A normality test and homogeneity test were carried out to select the classes. Class 8C was the experimental group, while class 8B served as the control group.

The data were analyzed quantitatively in an experimental design. The steps taken in the experimental design are prerequirement analysis and hypothesis testing. The pre-requirement analysis was done by using homogeneity and normality tests. Meanwhile, the hypothesis testing was done by using the T-test. Proceeding the effectiveness test was the response test. This test examined the students' responses after participating in a class taught by the game-based model. Responses of the students focused on their thoughts regarding the learning process, the lesson, and the teacher.

#### RESULTS/FINDINGS

The game-based learning model was used during the treatment for the eighth-graders at SMP 6 state junior high school in Magelang. The normality and homogeneity tests were performed before the treatment. The normality test was intended to determine whether or not the data were normally distributed. A parametrical statistic test was then carried out if the data were confirmed to be normally distributed. However, if the data were not normally distributed, the analysis proceeded to the non-parametrical statistic test. The homogeneity test was aimed at finding out whether or not the two student groups had the same variables. Should the groups had the same variables, the result was considered homogeneous.

#### **Normality Test**

A normality test was carried out using the Shapiro-Wilk test to examine the pre-test of the eighth-grade students. In this test, the data will be considered normally distributed if the significance value is greater than 0.05, or otherwise, it is not normally distributed.

 Table 1: Normality Test

	SMP	Shapiro-Wilk		
		Statistic	df	Sig.
Score	8B	.945	26	.178
Pre-test	8C	.941	26	.143

From the above table, the significance value gets 0.178 (class 8B) and 0.143 (class 8C); both scores are greater than 0.05, meaning that 0.178 > 0.05 and 0.143 > 0.05. The findings conclude that the data are normally distributed and, therefore, the analysis continues to the parametrical statistic test.

#### **Homogeneity Test**

The homogeneity test referred to a test aimed at finding out variances of two or more distributions. According to the criteria, the variance of two or more data groups is classified homogenous if its significance is greater than 0.05. The following table provides the result of the homogeneity test using the SPSS program.

Table 2: Homogeneity Test

Levene Statistic	df1	df2	Sig.
.108	1	50	.744

The above table indicates that the significance of the homogeneity test on class 8B and 8C is 0.744. The score is greater than 0.05, meaning that the distribution of the data of both class 8b and 8C are classified homogeneous.

Treatment of Experimental and Control Groups Using the Game-based Learning Model in the Javanese language Class



## **Treatment in the Experimental Class**

Stages of the learning process in the experimental class refer to the lesson plan for the game-based learning activities; the stages are the introduction, explanation of the lesson, preparation of the game resources, explanation of the game procedures, exploration of words, exploration of sentences, designing dialogue framework, practicing dialogue, assessment, and reflection. The classroom sessions were conducted in four meetings; one meeting was allocated for the student evaluation. As many as 27 students participated in this class.

The stages of learning were divided into three, namely introduction, main activities, and closing. In the introduction, the class president leads the prayer before the teacher greets the class. The teacher checks the student attendance and then explains the basic competencies and indicators of the lesson of the day.

The students participate in various games during the main activities. These games consist of three levels, i.e., levels 1, 2, and 3. In level 1, the students are asked to find the collocation of the vocabularies in ngoko (common), krama (moderate-polite), and krama inggil (high - polite) style written on a special necklace. The concept of the level-2 game is to arrange a sentence based on the Javanese speech level style using special flashcards called figure card and verb card. Meanwhile, songs and special flashcards were utilized in the level-3 game. The level-1 game helps the students improve their understanding regarding several vocabularies in ngoko (common), krama (moderate-polite), and krama inggil (high - polite) language style.Level-2 game is significant to the students' comprehension regarding the Javanese speech levels, and level 3 is significant to the students' comprehension and application of the concept.



Figure 1: Playing games using the concept of Javanese speech level

Source: Personal documentation

The step after the main activity is closing. In this session, the students express their responses after getting involved in a class taught by the game-based model. The students also explain the new information they have learned from the activities. Before closing the class, the teacher informs the students that they are going to have an evaluation for the next meeting. The students are asked to prepare themselves and make their learning groups. During this session, the teacher also asks the class president to lead the prayer, meaning that the class is over.

After three meetings, the students participate in an evaluation test in the fourth meeting. The test comprises a knowledge test and skill test. Moreover, the average result is identified by accumulating the outcomes of the two tests. The following table provides the result of the students in the experimental class.

**Table 3:** The Score of the Students in The experimental group

	Frequency	Percent	Valid percent	Cumulative Percent
Valid 52.50	1	3.7	3.7	3.7
62.50	1	3.7	3.7	7.4
65.00	2	7.4	7.4	14.8
67.50	3	11.1	11.1	25.9
70.00	4	14.8	14.8	40.7
72.50	3	11.1	11.1	51.9
75.00	4	14.8	14.8	66.7
77.50	3	11.1	11.1	77.8
80.00	4	14.8	14.8	92.6
82.50	2	7.4	7.4	100.0
Total	27	100.0	100.0	



From the table, the highest score and the lowest score are 82.5 and 52.5, respectively. The calculation reveals that the average score of the students in the experimental group reaches 72.6. In other words, the students have achieved the minimum mastery standard of 68.

#### **Treatment of the Control Class**

The teaching and learning process in the control class refers to the lesson plan for direct instruction. The total classroom sessions are similar to that of the experimental class, i.e., four-meeting sessions (three meetings of regular class and one meeting allocated for evaluation). As many as 25 students involved in this class.



Figure 2: Conversation between students

Source: Personal documentation

Activities in the control class refer to the syntagmatic model; its stages comprise orientation, presentation, practicum, and independent practices. In the orientation stage, the teacher explains learning objectives, the overview of the lesson, along with the activities during the class. Following this step is the lecturing session, which discusses the lessons, the concepts, and other relevant skills. The teacher asks the students to work in groups of three in the practicum session. Once the groups have been formed, the teacher distributes flashcards with a theme of conversation role-play written on each card. Each group is assigned to write a conversation script based on the card they have chosen before performing the conversation in front of the class. In this session, the teacher's task is to guide the students. After the presentation, the students are assigned to do independent practices; the teacher does not provide feedback throughout this activity. The assessment step is carried out right after the independent step using a performance test. The following table provides the result of the students in the control class.

Fraguency Percent

**Table 4:** The Score of the Students in Control Group

	Frequency	Percent	Valid	Cumulative
			Percent	Percent
Valid 47.50	1	4.0	4.0	4.0
52.50	1	4.0	4.0	8.0
55.00	3	12.0	12.0	20.0
57.50	2	8.0	8.0	28.0
60.00	1	4.2	4.0	32.0
62.50	3	12.0	12.0	44.0
65.00	5	20.0	20.0	64.0
67.50	3	12.0	12.0	76.0
72.50	2	8.0	8.0	84.0
75.00	2	8.0	8.0	92.0
77.50	1	4.0	4.0	96.0
85.00	1	4.0	4.0	100.0
Total	25	100.0	100.0	

As based on the above table, the lowest score of the control class is 47.5, while the highest gets 85 with an average of 64.5. The average score is lower than those in the experimental class (72.6).



## **Hypothesis Testing**

A hypothesis test was carried out to examine the comparison of the test results of the students who were taught using the model and those who were not using an independent sample T-test. This test was used to identify the differences in the average of two independent sample groups. Further, the data were analyzed by using an SPSS program. Procedures of the decision-making process are: (1) determining the null hypothesis and alternative hypothesis. The null hypothesis, H0: "there are no differences in the Javanese language learning outcomes of the experimental class and control class". The alternative hypothesis, Ha is that "there are differences in the Javanese language learning outcomes of the experimental class and control class". (2) Determining the significance value. (3) Deciding the result: if the significance value > 0.05, the H0 is accepted, and if the significance value  $\le 0.05$ , the H0 is refuted.

According to the result of the independent sample T-test, the average score of class 8C is 72.6, while those of class 8B reach 64.5. Thereby, the study finds the differences in the Javanese language learning outcomes of the experimental class (8C) and control class (8B).

**Table 5:** Comparison of the Average Score of The experimental group and Control Group

	SMP	N	Mean	Std Deviation	Std.Error Mean
Score	8C	27	72.6852	6.89642	1.32722
	8B	25	64.5000	8.66025	1.73205

The outcomes of the analyzed independent sample T-test result are further examined using the SPSS; this is to confirm whether or not the differences are significant. The result of this test is as follows.

Table 6: Independent Sample Test

		t-test for Equality of Means						
		t	df	Sig (2-tailed)	Mean Difference	Std.Error Difference	95% Interval Difference	Confidence of the e
							Lower	Upper
Score	Equal variances assumed	3.738	50	.000	8.18519	2.16300	3.84067	12.52970
	Equal variances not assumed	3.751	45.863	.000	8.18519	2.18209	3.79252	12.57785

From the output, the significance value (sig.2-tailed) gets 0.00, meaning that the value is lower than 0.05. This result, based on the criteria of the independent sample T-test, implies that H0 is rejected and Ha is accepted. In conclusion, the differences in the Javanese language learning outcomes of the experimental class and control class are significant.

# DISCUSSION / ANALYSIS

The application of game-based learning is the actualization of responsive adaptation about the reality of the everchanging situation in language learning. Besides, the development of the model is a critic of the conventional learning model that overemphasizes the understanding of grammar and ignores the functional aspects and the use of languages appropriately according to the context. The incorporation of games stimulates all parts of the brain, both the left hemisphere and the right hemisphere since it integrates the logics and emotional aspects proportionally. Participating in the games helps students speak in the Javanese language fluently based on the appropriate language style with correct intonation and pronunciation.

Gordon et al. (1999) clarify that the utilization of games in language learning provides an engaging class. The integration of games is also beneficial to stimulate verbal interaction among learners, improve fluency in speaking, and prevent boredom learning activities (Mustari et al., 2012), (Purwanti et al., 2012) believe that this approach is significant to reduce anxiety in learning. Several studies have reported other advantages of integrating games in a class, such as providing meaningful and joyful learning, improving self-confidence, and promoting unconstrained learning (Korkmaz, 2013; Ahmad, 2017; Masouleh, 2012).

# Students' Responses towards the Game-based Learning

The responses are generated from the questionnaire that has been distributed to the class 8C (consisting of 27 students). The majority of the students give positive responses regarding the game-based learning. They argue that learning is fun and enticing by which it contributes to the development of their Javanese language skills. Additionally, the model is effective to stimulate the students' engagement in the class. They are happy to participate in the class since the teacher acts as the facilitator without being too authoritative. All opinions and responses from the students are appreciated. The teacher also encourages the students not to be shy to speak in the class. Another advantage of the learning model is a

positive relationship between the teacher and the students. Lastly, all examples provided by the teacher are uncomplicated. The examples help the students to learn ethics and manners.

#### CONCLUSION

This research finds that the game-based model is effective for the Javanese language class. It is based on the comparison of the test results of the students who are taught using the model and those who are not. The average score test of the students taught by game-based learning reaches 72.6. On the other hand, those participated in a class with different treatment score 64.5 on average. The outcome of the analyzed independent sample T-test result is then examined using the SPSS; this is to confirm whether or not the differences are significant. According to the result, the significance value gets 0.00, meaning that the value is lower than 0.05. In other words, the differences in the Javanese language learning outcomes of the experimental class (the students taught by the game-based model) and control class (the students taught by the direct learning model) are significant.

#### LIMITATION AND STUDY FORWARD

This present study has its limitations in the treatment or the experiment of the use of game-based learning. In this study, the game is used to teach the Solo-Jogja dialect, and it is yet utilized to teach the Javanese language in the *Ngapak* dialect since the dialect is not widely used in Central Java. Some areas using the dialect involve Cilacap, Tegal, Brebes, and Purwokerto.

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#### REFERENCES

- 1. Ahmad, A. (2017). Penerapan permainan Bahasa (katarsis) Untuk meningkatkan keterampilan membaca siswa kelas Iva SD Negeri 01 metro Pusat. *EduHumaniora Jurnal Pendidikan Dasar Kampus Cibiru*, 9(2), 75. https://doi.org/10.17509/eh.v9i2.7024
- 2. Amrullah, A. Z. (2015). Developing language games to teach speaking. *Journal of English Education and Linguistics Studies*, 2(2), 13–33. https://doi.org/10.30762/jeels.v2i2.94
- 3. Ashok, M. L., Revathi, P. S., & Saminathan, P.B. (2013). Effectiveness of language games in learning English grammar. *Shanlax International Journal of Education*, 1(3), 16-23. Retrieved from http://www.shanlaxjournals.in/pdf/
- 4. Bergen, D. (2002). The role of pretend play in children's cognitive development. *Early Childhood Research and Practice*, 4(1).
- 5. Birova, I. L. (2013). The game as the main strategy in language education. *American Journal of Educational Research*, 1(1), 6–10. <a href="https://doi.org/10.12691/education-1-1-2">https://doi.org/10.12691/education-1-1-2</a>
- 6. Buttner, A. (2013). Permainan dan strategi penilaian Untuk kelas Bahasa asing. PT Indeks.
- 7. Dewi, R. S., Kultsum, U., & Armadi, A. (2017). Using communicative games in improving students' speaking skills. *English Language Teaching*, 10(1), 63. <a href="https://doi.org/10.5539/elt.v10n1p63">https://doi.org/10.5539/elt.v10n1p63</a>
- 8. Djuanda, D. (2006). Pembelajaran Bahasa Indonesia yang komunikatif dan menyenangkan. Depdiknas.
- 9. Gelisli, Y., & Yazici, E. (2015). A study of traditional child games played in the Konya region in terms of development fields of children. *Procedia Social and Behavioral Sciences*, 197(February), 1859–1865. <a href="https://doi.org/10.1016/j.sbspro.2015.07.247">https://doi.org/10.1016/j.sbspro.2015.07.247</a>
- 10. Gordon, L., Bedson, G., & Maley, A. (1999). Games for children resource books for teachers. Oxford University Press.
- 11. Hadfield, J. (2003). Intermediate grammar games. Longman.
- 12. Huyen, N. T. T., & Nga, K. T. T. (2003). Learning vocabulary through games. Asian EFL Journal, 5 (4).
- 13. Joyce, B., & Weil, M. (1996). Model of teaching (8th Ed.). Allyn&Bacon.
- 14. Korkmaz, Ş. Ç. (2013). Language games as a part of edutainment. *Procedia Social and Behavioral Sciences*, 93, 1249–1253. <a href="https://doi.org/10.1016/j.sbspro.2013.10.023">https://doi.org/10.1016/j.sbspro.2013.10.023</a>
- 15. Lai, N. K., Ang, T. F., Por, L. Y., & Liew, C. S. (2018). The impact of play on child development a literature review. *Europen Early Childhood Education Research Journal*, 26(5), 625–643. https://doi.org/10.1080/1350293X.2018.1522479
- 16. Latuconsina, S. N & Susiawati. (2018). Efektivitas permainan Bahasa Arab Dalam meningkatkan kemampuan membaca mahasiswa program studi pendidikn Bahasa Arab. *Journal of Arabic Studies*, 3(2), 145-156. DOI:



- https://doi.org/10.24865/ajas.v3i2.99
- 17. Lestari, P. I., & Prima, E. (2017). The implementation of traditional games to improve social-emotional early childhood. *Journal of Educational Science and Technology (EST)*, 3(3), 178. <a href="https://doi.org/10.26858/est.v3i3.4212">https://doi.org/10.26858/est.v3i3.4212</a>
- 18. Masouleh, N. S. (2012). From method to post method: a panacea! *English Language Teaching*, 5(4), 65–73. https://doi.org/10.5539/elt.v5n4p65
- 19. Masjid, A. A. (2016). Penerapan strategi pembelajaran afektif Dalam pembelajaran unggah-ungguh Bahasa Jawa. *Jurnal Trihayu*, 2(2). Retrieved from http://jurnal.ustjogja.ac.id/index.php/trihayu/article/view/727.
- 20. Mustari, M. I., Jasmi, K. A., Muhammad, A., Bakar, R. A., & Ahamad, S. (2012). Permainan Bahasa Dalam pengajaran dan pembelajaran Bahasa Arab Proceeding of the international seminar, Senai Johor Bahru. 879–888.
- 21. Pateliya, Y. P. (2013). An introduction to modern models of teaching. *International Journal for Research in Education*, 2(2), 125–129.
- 22. Purwanti, S., Sugiyo, & Tajri, I. (2012). Model bimbingan kelompok Dengan Teknik Fun Game Untuk mengurangi kecemasan berbicara di depan kelas. *Jurnal Bimbingan Konseling [Journal of Guidance and Counseling]*, *I*(1), 81–87.
- 23. Quinn, G. (2011). Teaching Javanese respect usage to foreign learners. *Electronic Journal of Foreign Language Teaching*, 8, 362–370.
- 24. Sánchez, M.M.M, Morfín, A.P, & Campos, V. E. P. (2007). Interactive games in the teaching-learning process of a foreign language. *Teoría Y Praxis*, 3(4), 47–66. <a href="https://doi.org/10.22403/UQROOMX/TYP04/04">https://doi.org/10.22403/UQROOMX/TYP04/04</a>
- 25. Setiawan, A. T., & Handayani, D. (2017). Model pembelajaran berbasis permainan tradisional ancak-ancak alis sebagai pemerkuat karakter Bangsa di era AEC. *Proceeding of National Seminar on Education: Tema "Desain pembelajaran di era AEC Untuk Pendidikan Indonesia berkemajuan Universitas Muhammadiyah Sidoarjo*, 58–71.
- 26. Sidik NH., M. I., & Winata, H. (2016). Meningkatkan Hasil belajar siswa melalui penerapan model pembelajaran direct instruction. *Jurnal Pendidikan Manajemen Perkantoran [Journal of Office Management Education]*, 1(1), 49. https://doi.org/10.17509/jpm.v1i1.3262
- 27. Subroto, D. E., Dwirahardjo, M., & Setiawan, B. (2008). Endangered krama and krama inggil varieties of the Javanese language. *Linguistik Indonesia*, 26(1), 89–96.
- 28. Sugiyono. (2011). Metode Penelitian Kuantitatif Kualitatif dan R&D. Alfabeta.
- 29. Utami, E. S., & Kurniati, E. (2007). Model pengembangan kompetensi kumunikatif pembelajaran Bahasa Jawa berbasis konteks sosiokultural. *Lembar Ilmu Pendidikan*, *36*(1), 7–17.
- 30. Vygotsky, L. S. (1967). Play and its role in the mental development of the child. *Soviet Psychology*, 5(3), 6–18. https://doi.org/10.2753/RPO1061-040505036
- 31. Wati, T. K. (2016). Tiwikrama Bahasa Jawa melalui Wikipedia [*Tiwikrama* of The Javanese language through Wikipedia] in D. Supriyadi (Ed.), *Supaya Basa Jawa Tetep Urip Ngrembaka Rekadaya Lumantar Pawiyatan* (pp. 59–64). Cipta Prima Nusantara.
- 32. Wright, Andrew, Betteridge, D., & Buckby, M. (2006). *Games for language learning* (3rd Ed.). Cambridge University. <a href="https://doi.org/10.1017/CBO9780511667145">https://doi.org/10.1017/CBO9780511667145</a>
- 33. Zhu, D. (2012). Using games to improve students' communicative ability. *Journal of Language Teaching and Research*, 3(4), 801–805. <a href="https://doi.org/10.4304/jltr.3.4.801-805">https://doi.org/10.4304/jltr.3.4.801-805</a>