

# The Implementation Of Android-Based Game "Climbing Castle" To Improve Grammar Mastery: A Classroom Action Research To Grade 8 Students of SMPN 3 Sutojayan Blitar

Nita Sutanti<sup>1</sup>  
Bahrul Ulum<sup>2</sup>  
Yeni Farinawati<sup>3</sup>

<sup>123</sup>English Education Department, Faculty of Teacher Training and Education, Blitar  
Islamic University, Blitar, 66137, INDONESIA

## Abstract

This classroom action research aims to enhance the grammar mastery of Grade 8 students at SMPN 3 Sutojayan through the implementation of the Android-based game "Climbing Castle." The study was conducted over a cycle, consisting of planning, action, observation, and reflection phases. Data were collected using tests, observations, and interviews to evaluate students' progress and engagement. The results indicate a significant improvement in students' grammar mastery, with increased motivation and participation in learning activities. The increasing of Students' motivation affect the *students's* score in learning grammar by 42%. The interactive and engaging nature of the "Climbing Castle" game proved to be an effective tool in creating a conducive learning environment, thus facilitating better grammar comprehension among students. This research highlights the potential of educational games in enhancing language learning outcomes and suggests further exploration into integrating technology-based methods into the curriculum. Further research is needed to investigate the effectiveness of Android Based game, Climbing Castle, in different contexts and with different groups of students.

**Keyword:** *android-based game; climbing castle; grammar mastery*

<sup>1\*</sup>Corresponding author, email: [nitasutanti4789@mail.com](mailto:nitasutanti4789@mail.com)

**Citation in APA style:** Sutanti, Nita (2024). The Implementation Of Android-Based Game "Climbing Castle" To Improve Grammar Mastery: A Classroom Action Research To Grade 8 Students of SMPN 3 Sutojayan Blitar. *JOSAR, Vol. 9 Number 2* page. 213-219

**Received:**  
August, 31<sup>st</sup> 2024

**Revised:**  
September, 28<sup>th</sup> 2024

**Published:**  
October, 9<sup>th</sup> 2024

DOI: <https://doi.org/10.35457/josar.v8i1.3940>

## 1. INTRODUCTION

Grammar is essential in learning English effectively. Grammar is the foundation that rules governs the way words and sentences are constructed and used in language. In the context of English, grammar affects the way words, sentences, and utterances are used. So, grammar can also be called the study of sentence structure, therefore grammar is used to understand and utilize spoken language when speaking and listening. According to Widodo (2006, cited in Andriani et al., 2021), Grammar is the basis of various types of language skills, including speaking, listening, reading, and writing. Language skills are taught in an integrated way through teaching-learning English activities, which include teaching English components, specifically grammar. (Supriyono et al., 2022)

From the above statement, we can understand that Grammar is one of the essential points that must be learned in English. What is the function of grammar, but according to Macfadyen, (2015), the many complex and unclear grammar rules make grammar the most challenging part of learning English for EFL students. According to Astrid, A. (2011 in Mandasari & Wahyudin, 2021), learners' inability to master English grammar - especially on sentence construction and the proper use of conjunctions and verbs according to evolving grammar standards - is a major challenge in learning the language. This problem can lead to misunderstandings in communication. Not only that, the repetitive use of traditional learning without any variation on difficult subjects will make students feel bored. Therefore, in this advanced digital revolution, the process of learning grammar can not only be done with traditional methods that tend to make students feel bored if done continuously but can be adapted into fun games that motivate students.

Learning media are materials, tools, or techniques used in learning activities to convey information about learning (Sanaky, 2013; Suryani & Agung, 2012). Media is a very important part of learning to improve students' ability to learn. The presentation of interesting and targeted learning media will result in learning that is easy for students to understand. Fun learning media will motivate students to learn. This is in accordance with Sujana and Rivai's statement about the benefits of learning media that are more interesting and fun. Motivation is the ability of human behavior that is responsible for why individuals choose to achieve something, to what extent they want to continue the movement, and how hard they will look for it (Wen & Piao, 2020). Motivation has become the key to the results of learning carried out by humans in order to achieve good results. One way to increase student motivation is to provide interesting learning media and learning methods. For this reason, the use of learning media is very important in the teaching and learning process. In this era of digitalization, the use of devices as digital learning media has begun to be widely used in schools.

In this digitalization era, the use of android has become a daily part of all circles. Based on observations obtained from SMPN 3 SUTOJAYAN, it shows that the level of device use among students has reached 100%. With the Online learning period, students have become accustomed to using technology as a learning method. This makes teachers have to be more creative in developing a fun learning method by utilizing technology. Even so, the use of devices in learning still uses the old method, namely using devices as a medium for sharing materials and questions. Teachers still tend to use cell phones to share materials and questions through WhatsApp social media or use them as electronic dictionaries. So this is no different from traditional learning where students listen to the material through their cellphones and the teacher explains. Whereas there are still many functions of devices that can help students to be more motivated when learning by providing various methods of learning Grammar to students.

Based on the importance of media in helping students understand learning and increasing student motivation, one learning method that can be effectively implemented

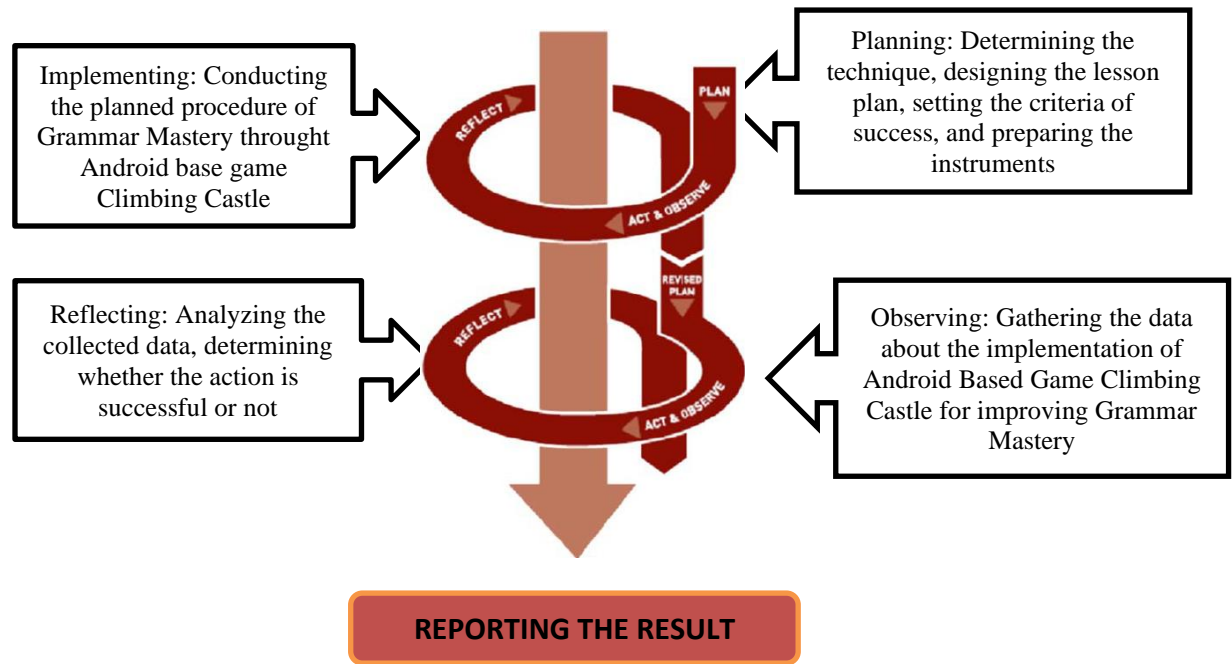
through devices is learning with the Educational Game method. Educational games are Mark & Dony, Educational games are games specifically designed to teach students in learning activities, but can also be used for fun and can foster student learning motivation when playing them. Educational games can improve learners' understanding more quickly because they are equipped with interesting features (Jaya et al., 2023), which can increase student motivation in learning. With an interesting, fun, and familiar method in the learning process, it will make teaching and learning activities easier for students to accept.

By using games on Android, students can do fun grammar learning. This is supported by research conducted by Redjeki & Muhajir in Gamification in EFL classroom to support teaching and learning in the 21st century, Yunanto et al. in Development Of Game-Based English Grammar Learning Application (Yunanto et al., 2023), and Using Digital Games for Enhancing EFL Grammar and Vocabulary in Higher Education by Castillo-Cuesta (Castillo-Cuesta, 2020). Based on these approaches, the researcher uses Climbing Castle as an innovative learning media based on application technology.

Climbing Castle is an android-based educational game application that offers learning through games by answering questions about English grammar. The distribution of material used in Climbing Castle has also been adjusted based on the level so that students will feel like being guided in learning Grammar with the game. Starting from levels 1-3, these levels indicate the difficulty level of the grammar, so that students can learn in a fun and systematic way. Climbing Castle is a classic adventure-based game, with characters that are moved using motion buttons. Each time the player touches a key, a panel will appear with questions that must be done to get the points, then continue adventuring the game for a limited time. The materials used in the climbing castle are the tenses of simply present, present continuous, and simple past tense. This game aims to improve the mastery of grammar of 8th-grade students. The game consists of 3 levels, each level has 3 stages and the last is evaluation. This Grammar learning educational game is made to attract students' attention to learn the sentence structure which is a challenge in learning English with a fun and exciting method. Thus, 8th-grade students are expected to be able to build motivation to learn so that they can improve their Grammar skills in English.

## **2. METHODS**

The aim of this study is to solve the issue in education where students frequently struggle to acquire grammar, which makes it difficult for them to learn correct and accurate English. To develop an innovative strategy for solving the problem, the researchers employed Classroom Action Research (CAR). Action research is a study done by practitioners to better understand and enhance their professional practice (Altrichter et al., 2002; Cameron-Jones, 1983). In light of this, Allwright & Bailey (1991) state that the research focuses on the classroom and simply looks into what takes place there. It approaches classroom interaction as if it were the only thing that was interesting to study. The research was conducted in a single cycle that included the following steps: planning, carrying out, observing, and reflecting on or assessing the course of the action as well as its outcome. Stephen Kemmis & Robin McTaggart (2014) state that CAR is the process of putting ideas into practice to make improvements and gain more knowledge about curriculum, teaching, and learning. In sum, CAR is a collaborative approach that involves researchers and participants, in this case, students were working together to identify a problem, develop solutions, implement actions, and reflect on the outcomes. According to the following figure, the teacher should be able to help the students become more proficient in grammar by using the Android-based game Climbing Castle.



The research was conducted at SMPN 3 Sutojayan and involved 33 students, as the object of the research, in the 1st semester who were eighth-grade students of SMPN 3 Sutojayan.

### 3. RESULT AND DISCUSSION

The results of the study demonstrate that there are research cycles designed to enhance students' mastery of grammar through the use of an Android game-based learning application called Climbing Castle. The content for these cycles was presented in three tenses: simple present tense, simple continuous tense, and simple past tense. The meeting in English was once a week. To learn English, the student has to master the four skills: listening, speaking, reading, and writing. Not only the four skills, but there are also sub skills in learning English, one of which is Grammar Mastery. The focus of this research was Grammar Mastery which the students had difficulty most in doing the tasks related to. The preliminary test conducted on the first meeting indicated their Grammar Mastery was low with the data that the average marks in each class were below 76 per 100, and no more than 20 getting marks above 76, the target mark. The range can be seen below.

Table 1: The range of formal marks of SMPN 3 SUTOJAYAN

Interval score	Mark		Status	Category
	Abjad	Number		
96-100	A+	4	Successful	Excellent
91-95	A	3.75	Successful	Almost Excellent
86-90	A-	3.5	Successful	Very Good
81-85	B+	3.25	Successful	Very Good
76-80	B	3.00	Successful	Good
71-75	B-	2.75	Successful	Good
66-70	C+	2.50	Successful	Enough
61-65	C	2.25	Successful	Enough
56-60	C-	2.00	Failed	Less

51-55	D	1.75	Failed	Less
0-59	E	0	Failed	None

In this research, the researcher targeted 76 or B for students' marks because it was the "good" category, the middle mark. Based on

The next data is about students' motivation found from interviews. The researcher interviews 5 students randomly. From the interview, the researcher got the data that 5 students, state that they have low motivation to learn Grammar because it's hard to learn and they are bored by the explanation. This finding also inline with, (Rosalia Vivi et al., 2023) that state in their finding, students struggled to learn English because they didn't grasp the practical application of the tenses they had taught. Additionally, they lacked excitement for the language, particularly when it came to picking up the tenses. Less engaging course materials bore students and deter them from pursuing further education. The A student also states that they can't remember and use the sentence correctly and are afraid to make mistakes. This affects their motivation to try and learn English because Grammar affects their 4 main skills in English. They are afraid to write and speak in English because they are afraid of their Grammar incorrectness.

The cycle has 4 steps, they are; planning, implementing, observing and reflecting, Android game base learning, the result is greatly improve from the pre-test. Additionally, the students' motivation during the process of teaching and learning are improved.

The students' motivation in the process of teaching and learning can be seen from the recording and the observational checklist. The result of the students' motivation using Android based Game as learning media was 85% than using traditional way as regular text book and presentation. This can be interpreted that students were find the learning method as fun and engaging during the teaching and learning process. It indicates that the criteria of success are achieved.

Futhermore, Educational games can improve learners' understanding more quickly because they are equipped with interesting features (Jaya et al., 2023), which can increase student motivation in learning. Thus, inline with the result that students motivation in learning grammar using educational games increasing their result. By using enggaging learning media, 90% of the students listened to the researcher explanation carefully, and 100% of students are excited with game. Therefore, 90% of the students also play the game outside the class. Which was resulted that 95% of students feel happy to learn grammar in new method and 80% of students motivated to learn more grammar using Climbing Castle.

There were 4 meetings in a classroom where the researcher explained the material at each level, and on the last day, the researchers evaluated the student's result. Each meeting was listed below:

Day	Material	Content
1	Level 1 : Simple Present Tense	Multiple Choice Question
2	Level 2 : Simple Continuous Tense	True/false questions
3	Level 3 : Simple Past Tesnse	Arranging the word to be a good sentence.
4	Evaluation	

Table 2: Meeting schedule in a classroom

Face-to-face meetings were 4 meetings; Climbing Casle class and teaching material class. Although the researcher provided materials and explanations in a classroom setting, the Climbing Castle session was where students practiced using the materials more.

On the first day, the researcher explain about the aplication, and installed it in their phone. At first, the students are face difficulties in installing the application because of the application need permission to be installed. After the instalation finish, they are excited to try the application. The researcher explain about how to play the game, and explain the material of the fist level grammar in class. The reseacher also explain about the requirment to complete the level, which was to collect all the keys by answering all the question correctly. The second and third day are the same. The researcher expplain about the material of the grammar that they have to answer in game, and let the students to play the game. The students who is already know how to play the game didn't have much difficulties in playing it, but they need several attempt to finish the level before the times up, since the grammar difficulties level also increase with the level of the game.

At the last session, the reseacher evaluated all the problem that the students face and explain the question that they deemed as difficult. After the evaluation done, the students play the last stage of the climbing Castle game.

Based on the evaluation data, the lowest interval score achieved by the students is 71-75 score with 6 students and the highest one is 91-95 with 5 students. Then in 86-90 are 15 students. The next is in 81-85 with 4 students and 76-80 with 3 students. The total number of students who meet the criteria of success is 27 students.

Based on the data from preliminary tests and evaluation results, it can be concluded that the action; of teaching learning Grammar Mastery through Climbing Castle classes is successful. The criteria for success are average students, which means 81%%, getting the "good" category or "B" and upper ones. The achievements of the students can be seen below:

	Pre-Test	Post-Test
1	70	88
2	52	71
3	67	87
4	47	78
5	79	88
6	65	89
7	43	73
8	87	95
9	51	74
10	68	87
11	62	90
12	83	93
13	46	74
14	66	84
15	85	95
16	82	90
17	63	86
18	82	95
19	82	89
20	65	83
21	82	88
22	58	79
23	53	75
24	45	74
25	67	82
26	58	79

27	63	82
28	81	86
29	82	90
30	78	88
31	66	88
32	85	91
33	76	89
	67,84848485	84,84848485

#### 4. DISCUSSION

The result of this research shows that teaching grammar using Game based classes is successful. This is suitable with Redjeki & Muhajir in Gamification in EFL classroom to support teaching and learning in the 21st century, Yunanto et al. in Development Of Game-Based English Grammar Learning Application, and Using Digital Games for Enhancing EFL Grammar and Vocabulary in Higher Education by Castillo-Cuesta. The difference between this research and those researchers is the researcher using a specific adventure game named Climbing Castle.

Besides increasing the students' marks in Grammar Mastery, the student's motivation to learn grammar also increased significantly. This happened because students saw Grammar as challenging subject to learn. By using game as the mean to learn, they find it more fun and engaging than learn it in traditional ways. It's in line with (Maulidyah et al., 2022) that state Android-based game can pique students' curiosity about grammar, particularly the study of tenses. When they can clear the level faster, they are happy because they won against their friend. In the other hand, when they can't clear it in time, they have to redo the game. The research result states that students using game-based learning, like Climbing Castle, are more motivated and engaging. They are happy because they can complete the level.

#### 5. CONCLUSION

Based on the result and discussion above, it can be concluded that using Climbing Castle as learning media in teaching learning Grammar Mastery is successful. The students' mark was significantly increased and it was likewise their motivation to do grammar questions. Their process of learning grammar mastery was easier than using traditional learning technique. They can learning while playing and compete with other students. By using Climbing Castle the students can find out directly their result and can make multiple attempt until they manage to clear the stage. By clearing the stage, it can be concluded that the students understand the material they presented in the game.

#### References

- Allwright, D., & Bailey, K. M. (1991). *Focus on the language classroom*. Cambridge University Press.
- Altrichter, H., Kemmis, S., McTaggart, R., & Zuber-Skerritt, O. (2002). The concept of action research. *The Learning Organization*, 9(3), 125–131.
- Andriani, A., Yuniar, V. D., & Abdullah, F. (2021). Teaching English grammar in an Indonesian junior high school. *AL-ISHLAH: Jurnal Pendidikan*, 13(2), 1046–1056.
- Cameron-Jones, M. (1983). *A Researching Profession? The Growth of Classroom Action Research*.
- Castillo-Cuesta, L. (2020). Using digital games for enhancing EFL grammar and vocabulary in higher education. *International Journal of Emerging Technologies in Learning (IJET)*, 15(20), 116–129.
- Jaya, K. T., An'Ars, M. G., & Surahman, A. (2023). Game Edukasi Berbasis Android Sebagai Media Pembelajaran Pengenalan Huruf Dan Angka Untuk Anak Usia Dini. *Jurnal Media Borneo*, 1(1), 12–20.

- Latief, M. A. (2012). *Research methods on language learning: An introduction*. Malang: Universitas Negeri Malang.
- Macfadyen, S. (2015). *Different Methods of Teaching Grammar*.
- Mandasari, B., & Wahyudin, A. Y. (2021). Flipped classroom learning model: implementation and its impact on EFL learners' satisfaction on grammar class. *Ethical Lingua: Journal of Language Teaching and Literature*, 8(1), 150–158.
- Maulidyah, S. N., Sari, P., & Aini, R. (2022). Developing “SEFY” Android-Based Game for Learning English Grammar: Research and Development. *EDUCATIO : Journal Of Education*, 7(3), 386–395.
- Rosalia Vivi, C., Puspita Sari, H., Rahmatika Aini, M., & Balitar Blitar, I. (2023). Developing “Fill My Spirit” Application to Enrich English Grammar Ability of Tenth-Grade Students. *Online) KONSTRUKTIVISME*, 15(1), 2442–2355.  
<https://doi.org/10.35457/konstruk.v15i1.2464>
- Sanaky, H. A. H. (2013). Media pembelajaran interaktif-inovatif. *Yogyakarta: Kaukaba Dipantara*, 3.
- Stephen Kemmis, S. K., & Robin McTaggart, R. M. (2014). *The action research planner: Doing critical participatory action research*. Springer.
- Supriyono, S., Sutanti, N., & Sari, H. P. (2022). Developing Journey Castle Game to Increase Students' Grammar Mastery: Research and Development. ... *Journal of Education*, 1(1), 53–65. <https://ejournal.staimnglawak.ac.id/index.php/educatio/article/view/625>
- Suryani, N., & Agung, L. (2012). *Strategi Belajar Mengajar: Yogyakarta. Penerit Ombak*.
- Wen, X., & Piao, M. (2020). Motivational profiles and learning experience across Chinese language proficiency levels. *System*, 90, 102216.
- Yunanto, A. A., Prayogi, Y. R., Arifiani, S., Herumurti, D., & Rochimah, S. (2023). *Developing English Grammar Learning Application based on Gamification*.