

The Use of Gartic.io on Past Tenses to Teach Students Vocabulary of 8th B Class SMPN 5 Blitar

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Abstract

This research aims to determine the processes and the results of developing Gartic.io on past tenses to teach students vocabulary in the 8th B Class of SMPN 5 BLITAR. Learning language is one of the many things that students learn in school. English is one of the languages students learn at school, in the learning processes one of the most effective ways to support student learning is through the use of media. Research and Development (R&D) employing the ADDIE model used by researcher in this study. The data in this study were collected through observation, interview, and questionnaire. The researcher receives score from the validation of instrument, media, and materials. The researcher get score 82.5% on instrument validation which is considered "valid", 87.5% on material expert validation which is considered "very valid", and 77.5% on media expert validation which is considered "valid". Second questionnaire for getting the students' responses about the media obtain 74% which is considered "valid".

Keywords—Gartic.io, Past Tense, Teaching Vocabulary

1. INTRODUCTION

The 21st century is frequently seen as a technological period. Today, technology is an essential part of our lives. It is regarded as the cornerstone of economic expansion. In the current environment, a technology-deficient economy is unable to grow. This is due to how much easier and faster technology has made our work. Every potential subject is affected by technology, and education is one of them. (Raja & Nagasubramani, 2018). The learning system, which is already beginning to move toward an online system, is greatly impacted by innovations in technology that are of great significance. The usage of learning media also has a direct connection to the educational system, where online learning media are frequently employed to facilitate effective learning. One of the educational media to emerge as a result of technological advancements is an Android-based educational game. (Hamidi, Meshkat, Rezaee, & Jafari, 2011)

Digital-based learning fosters the production of the usage of cutting-edge, successful, and efficient learning media in an effort to improve student learning outcomes, keeping up with the development of Technology and Information. The teacher needs learning media as a tool to communicate the subject matter. Learning media serves as an intermediary between the sender and the recipient, acting as a channel for messages to be sent so that both parties can attract the same attention, ideas, feelings, and desires for the learning process to take place. (Citra & Rosy, 2020)

The teacher's role is very important in encouraging students to increase learning motivation, especially in literacy skills. There needs to be an effort to assist in the learning process by using digital media as an effective learning resource. This digital media can help teachers and students access information flexibly, and must be able to keep up with today's rapidly developing technological developments. (Suganda, 2022).

In this study, 31 students in 8th B Class SMPN 5 Blitar participated in observations and questionnaires that were administered by the researcher. By observation, the researcher was able to determine how learning was occurring at the moment. The teacher's use of media and delivery style, as well as his or her capacity to create an enjoyable learning environment, were both easily understood by the students. The researcher discovered the limitations faced by the students while conducting interviews with 10 samples of the students. Four out of ten students claimed that their lack of interest in English was a result of their ignorance of the language's significance in their everyday lives. Via interviews, the study also discovered how far the students' English proficiency had progressed. Afterwards, all of the English teachers and students in class 8th B at SMPN 5 BLITAR were given a questionnaire by the researcher. 90% of the students who responded to the survey are aware of the value of English in the future. Researchers also asked students to rate their preferences for learning activities, and 48.3% of respondents (the majority of students) said they preferred learning activities that included games. Based on the problems that occurred at 8th B Class SMPN 5 BLITAR, the researcher found the solution. The solution is to teach vocabulary through game-based learning media namely Gartic.io. Grabe, 2008 stated that Vocabulary learning needs to be developed from a combination of direct vocabulary instruction, vocabulary learning strategies, extensive reading and learning of words from context, increasing students' awareness of new words, and motivation to use and collect words. (Makrifah, 2018)

Gartic.io can be said to be one of the game-based learning media that available in this era, and the previous study about game-based learning shown in "PowPow" interactive game in supporting English vocabulary for elementary students by Andreani & Ying, 2019. Andreani & Ying show how successful the game-based learning use to support the learning processes, in this research stated that the PowPow game is considered to have succeeded in attracting students' interest in learning English and making students motivated to learn English. The game is played by 35 elementary students, aged 7 to 12 years old and getting the result that 100% the game builds a more engaging learning environment, and 86% the game causes users to like English more. The data also shown that 86% the game increases the learning interest.

Based on the background and previous study, the researcher will carry out a research entitled "Developing Gartic.io on Past Tenses to Teach Students Vocabulary of 8th B Class SMPN 5 BLITAR". The researcher uses this title because the researcher want to know the effectiveness of using Gartic.io media on students learning outcomes.

2. RESEARCH METHODOLOGY

Research method that used by the researcher in this study was Research and Development (R&D). Research and Development (R&D) is the research method used to produce certain products, and test the effectiveness of the product. (Sugiyono, 2013). In this model of development the researcher used the ADDIE model for the research. The phases of this model include analysis, design, development, implementation, and evaluation. The research included both qualitative and quantitative data, with the qualitative data coming from interviews and observations made during the preliminary investigation. From the preliminary investigation the researcher will get the qualitative data from such questions given to the students. Then the researcher analyzed how the student learn during the learning process in the classroom. Quantitative information, meanwhile, came from the post-study questioner. The researcher use Google Form to make the questionnaire with such a question to get the data about the problems in the learning process.

The researcher choose 8th B Class SMPN 5 BLITAR as a place of observation, there are 1 English teacher and 31 students consist of 19 males and 12 females. The validator will also validate the data or tool. These are media, material and instrument validators.

Using a validity and practicality sheet, the study's instrument was employed. The validator are media experts, material experts and programming experts continues the validation stage of the media that has been created using validation activities. Arikunto (2010) in (Maharani, Rofi'ah, & Saidufin, 2022) Validity is then interpreted using the percentage of results where the researcher use a Likert Scale with a 4-point scale (Bertram, 2007) then the following specifications to determine the value of validity that can be calculated using the following formula:

$$P = \frac{\sum x}{\sum xi} \times 100\%$$

P = Eligibility
 $\sum x$ = Number of assessment answer
 $\sum xi$ = Highest number of answer

Table 1. Percentage of Validity(Arikunto, 2013)

No.	Percentage (%)	Criteria	Explanation
1.	40% - 54%	Invalid	Very Improper
2.	55% - 69%	Less Valid	Less Feasible
3.	70% - 84%	Valid	Feasible
4.	85% - 100%	Very Valid	Very Decent

The second questionnaire is given to the students to assess their opinions on the use of media in the classroom, particularly in the 8th B Class SMPN 5 BLITAR utilizing the percentage to calculate the students' response criteria (Arikunto, 2013).

$$\Sigma = \frac{X}{N} \times 100\%$$

Σ = Percentage
 X = Total score obtained
 N = Maximum score

Table 2. Percentage of Students Response (Arikunto, 2013)

No.	Percentage (%)	Criteria	Explanation
1.	21% - 40%	Less Valid	Less Feasible
2.	41% - 60%	Decent Enough	Decent Enough
3.	61% - 80%	Valid	Feasible
4.	81% - 100%	Very Valid	Very Decent

The researcher determines that this research is successfull when the validation score is 70% - 84 % which is considered valid and the percentage of students responses is 61% - 80% which is considered valid.

3. RESULT AND DISCUSSION

The result in this study is the researcher develop Gartic.io to teach students vocabulary of 8th B Class SMPN 5 BLITAR through several process using ADDIE model of development. The researcher found the problems by conducting interviews and questionnaire to the students. The media that developed by the researcher aims to teach vocabulary on Past Tenses. Media expert validator and material expert validator then validated the media. The point obtained from validator shows in the table below.

Table 3. Media Expert Validation Result

NO	Assesment Point	Percentage	Total
1.	Media digunakan sesuai dengan materi pembelajaran	3	4
2.	Media digunakan sesuai dengan kompetensi dasar	3	4
3.	Media digunakan sesuai dengan tujuan pembelajaran	3	4
4.	Media dapat mempermudah siswa dalam mengimajinasikan pemikirannya	4	4
5.	Media memiliki konten yang dapat dimainkan dengan mudah	3	4
6.	Media menarik perhatian siswa untuk mengingat kosakata	3	4
7.	Media yang digunakan menarik minat belajar siswa	3	4
8.	Media membangun interaksi yang komunikatif antara guru dengan murid	2	4
9.	Penggunaan media dapat menambah daya ingat secara maksimal	3	4
10.	Media dapat membantu mempermudah pemberian materi yang diajarkan	4	4
	Total	31	40

$$P = \frac{\sum x}{\sum xi} \times 100\%$$

$$P = \frac{31}{40} \times 100\%$$

$$P = 77.5\%$$

Table 3 is media expert validation and it is stated that the media to be tested and gets a calculation with a total of 77.5% which can be considered “valid”. It can be concluded in accordance with the table above that the validation result is “valid”.

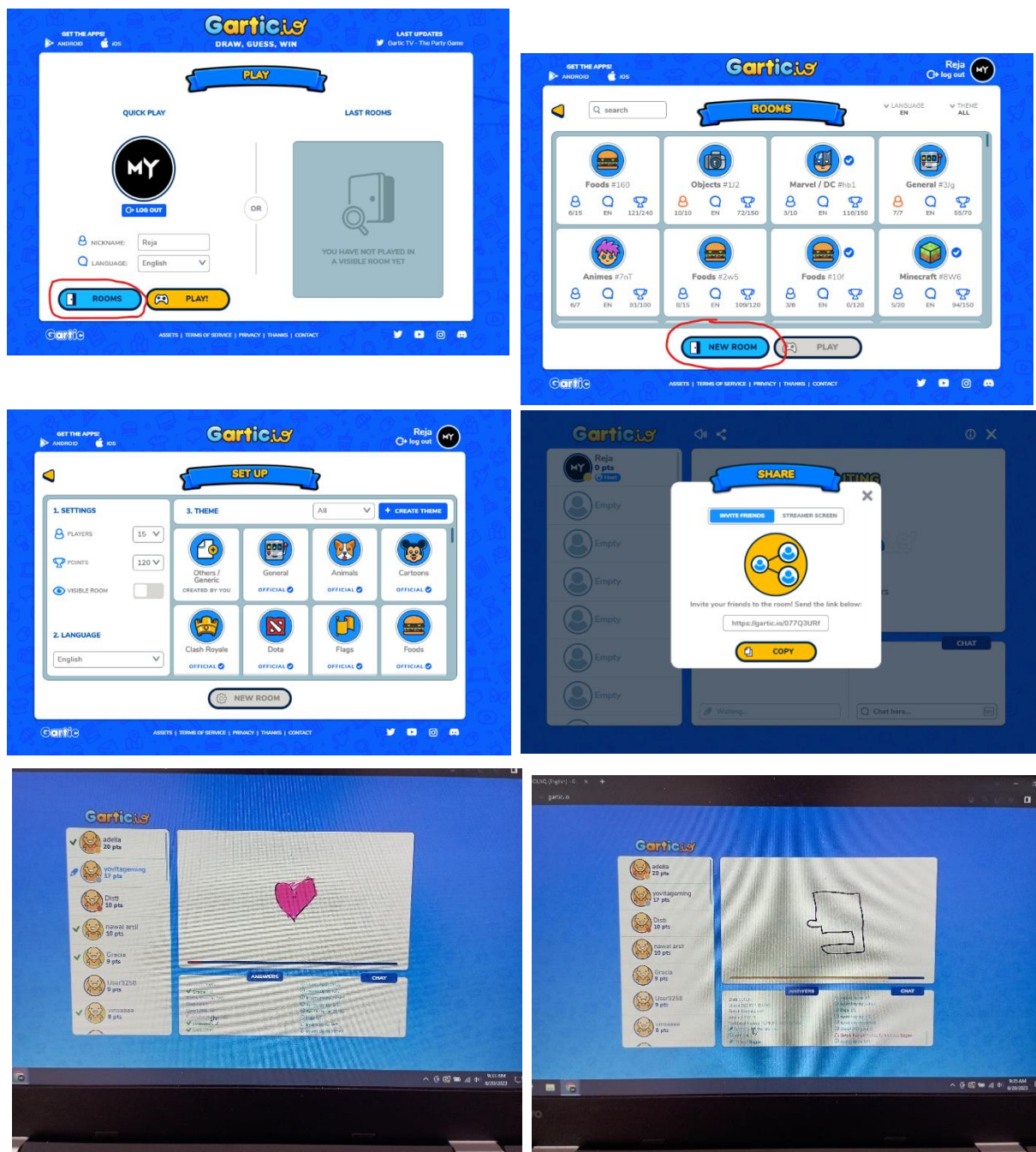


Figure 1. Media Display

Figure 1 is media display while conducting the research that has been revised by the researcher based on the assessment of the media validator so it is appropriate to teach students vocabulary on past tense. User need to login first to create new themes so the theme is suitable with the user learning material

Table 4. Material Expert Validation Result

NO	Assesment Point	Percentage	Total
1.	Kecocokan materi dari media sesuai dengan kompetensi inti dan kompetensi dasar	3	4
2.	Materi yang digunakan dalam media disajikan secara detail	3	4
3.	Materi dapat dipahami dengan mudah oleh siswa	4	4
4.	Materi dari media yang digunakan dekat dengan kehidupan sehari-hari siswa	4	4
5.	Gambar/ilustrasi yang disajikan sesuai dengan kompetensi inti dan kompetensi dasar	3	4
6.	Isi materi dari media dapat mempermudah siswa dalam membangun imajinasi	4	4
7.	Tampilan media menarik perhatian siswa untuk mengingat kosakata	4	4
8.	Penggunaan media dapat melatih siswa untuk belajar dengan lebih mandiri	3	4
9.	Penggunaan media dapat menambah daya ingat secara maksimal	4	4
10.	Media dapat membantu mempermudah pemberian materi yang diajarkan	3	4
	Total	35	40

$$P = \frac{\sum x}{\sum xi} \times 100\%$$

$$P = \frac{35}{40} \times 100\%$$

$$P = 87.5\%$$

Table 4 is material expert validation and it is stated that material to be tested gets a calculation of 87.5% which is considered “very valid”. It can be concluded that the validation result at this point are “valid”.

Table 5. Students Response Result

NO	Assesment Point	Point Answer	Highest Point
1.	Question 1	95	155
2.	Question 2	111	155
3.	Question 3	117	155
4.	Question 4	115	155
5.	Question 5	118	155
6.	Question 6	119	155
7.	Question 7	128	155
8.	Question 8	116	155
9.	Question 9	114	155
	TOTAL	1033	1395

$$P = \frac{x}{N} \times 100\%$$

$$P = \frac{1033}{1395} \times 100\%$$

$$P = 74\%$$

Based on the table above, the students response about Gartic.io media get score 74% by the students. So it can be concluded in accordance with the table above that the validation result at this point are “valid”.

In this study there are several problems that must be answer by the researcher; 1)How is the process of developing Gartic.io to teach vocabulary of 8th B Class SMPN 5 BLITAR, 2) How is the result of developing of developing Gartic.io to teach vocabulary of 8th B Class SMPN 5 BLITAR

The first stage is Analysis, for the research process the researcher searching for issues and discovering some issues at SMPN 5 BLITAR. Students felt they lacked vocabulary in English, so they did not understand the meaning of every word, according to the first problem discovery. The discovery of the second issue is the lack of information regarding the media that can be used to support game-based learning The researcher found that vocabulary issues exist at the school by analyzing and observing at school and in class, and then conducting a questionnaire for 31 students in the 8th B Class, the researcher discovered vocabulary problems. The researcher found what is the reason of their lack of vocabulary. The main problem that the researcher found from conducting a questionnaire and doing interview is they preferred to do learning while playing which mean they prefer practice rather than theory, but does not mean that in this research there will be no theory. The researcher intention is to teach students with their vocabulary knowledge using a game-based learning which mean learning by doing or learning while playing. The purpose of the Gartic.io product is to help researchers teach students' vocabulary knowledge and make learning more enjoyable. After analyze the student' need and curriculum, the researcher did the evaluation and revise it first before continue on the next step.

Next stage is design stage, The design phase addresses learning objectives, assessment tools, activities, content, subject matter analysis, lesson preparation, and media selection. The researcher made the decision to develop a learning design that would

be utilized for performance objectives, competency, learning techniques, evaluation, and assessment. Researcher will employ game-based media, such as gartic.io, for the research. Gartic.io includes terms relating to the subject (Past Tense). Before moving on to the next phase, the researcher evaluated and revised the product once it had been designed.

After choosing the method(s) of instructional delivery and creating the learning objectives in the design phase, the development phase consists of creating and organizing the actual learning material that will be used during instruction. The third stage of development, the researcher must submit the work to three validators: a validator instrument to ensure that the questionnaire's linguistic structure is correct, a media validator to ensure that the media meets students's needs and a material validator to ensure that the material used is appropriate before the researcher can implement the media. The researcher got a score 82.5% on instrument validation which is considered "valid", 87.5% on material expert validation which is considered "very valid", and 77.5% on media expert validation which is considered "valid".

After thoughtful analysis, design, and development, the instruction must then be implemented or delivered. The total students that represented in one class is 31 students, the implementation is done by splitting all of the students into 4 groups, each of which has a maximum of 10 students and a minimum of 8 students. In order to decide how to use the media throughout the hour as efficiently as possible, the researcher practiced previously. The game will begin once students are handed a little piece of paper to indicate which group they belong to. Next, the researcher evaluates the process of implementation and revise it before moving to the next step.

The final stage is evaluation; only formative evaluation was carried out because this kind of evaluation was relevant to all stages of research to enhance the eventual product creation. All earlier stages also included this evaluation.

Game-based learning is one of the effective ways to support the learning processes but it is underrated due to the problems on developing game-based learning media. Gartic.io is one of the game-based learning media that is available and can be played easily by various ages, as long as there is an internet connection it can be played anywhere and anytime. There is a feature where the researcher can make it's own theme to make it appropriate to use in any material but the researcher have to login using a google or facebook account. Based on the data table shown above, Gartic.io is really helpfully to support the learning processes to be more enjoyable and more engaging. Gartic.io also help students vocabulary knowledge.

4. CONCLUSION

Digital-based learning fosters the production of the usage of cutting-edge, successful, and efficient learning media in an effort to improve student learning outcomes, keeping up with the development of Technology and Information. The teacher needs learning media as a tool to communicate the subject matter. Learning media serves as an intermediary between the sender and the recipient, acting as a channel for messages to be sent so that both parties can attract the same attention, ideas, feelings, and desires for the learning process to take place. The data from questionnaire shown that the majority of the students want a game-based learning media. coincides with the effectiveness of game-based learning media shown in “PowPow” interactive game in supporting English vocabulary for elementary students by Andreani & Ying, 2019, the researcher then conduct research that focuses on game-based learning media.

The researcher get score from the validation of instruments, media, and materials. The researcher get score 82.5% on instrument validation which is considered “valid”, 87.5% on material expert validation which is considered “very valid”, and 77.5% on media expert validation which is considered “valid”. Second questionnaire for getting the students’ responses about the media obtain 74% which is considered “valid”.

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