Developing G-Smartive (Getting Smart in Narrative) Multimedia as an Aid to Learn Reading of Narrative Text for Tenth Graders of Vocational High School

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ABSTRACT
This study aims to develop the appropriate learning multimedia named G-Smartive (Getting Smart in Narrative) that provides the interesting components, learning materials, and applies game-based learning. It uses as aid to learn reading especially narrative text for tenth graders of Vocational High School. The method of this study was developmental research model purposed by [1]. The steps were need analysis, product development, expert validation, first revision, product try-out, final revision, and final product. The participant of this study was X KJB students in SMK PGRI 3 Malang. The instruments used were need analysis questionnaire, validation sheet, and questionnaire for product try-out. The data was analysed quantitatively. Regarding the result of need analysis and document analysis, G-Smartive presented three main materials which were reading comprehension, language feature, and vocabulary category. The result of validation showed that G-Smartive was suitable and appropriate to use for tenth grade students, but it needed some revisions. The research finding showed that all the aspects were in good category. The product also got the positive response from the students. G-Smartive gave contributions in supporting language learning, increasing the students’ language proficiency, and making the process of acquisition easier, and more interesting.

Keywords: Reading, Learning Multimedia, G-Smartive

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1. Research Background

Nowadays, the development and use of Information Technologies (IT) significantly increase in many fields of our societies, such as education. The integration of IT has new challenges in all aspects of teaching and learning processes that need to revise the traditional educational paradigm that has been used for the last centuries [2]. It means that teaching and learning in the class are demanded to promote innovative and creative activities. By exploiting the development of technologies, students can improve their achievement, especially English lesson. As far as ELT is concerned, reading has been considered as an important component and the functions as a vital element to develop language mastery [3]. The successful of teaching reading can be influenced by some factors. One of them is learning material. Learning material is an essential element of teaching and learning process. To achieve the goals of the learning, a teacher has to design the proper and effective learning material carefully. However, textbooks or other printed materials are usually used by teachers to teach reading. It is considered as main materials, but those materials are often delivered in a conventional way. Most teachers give a text to the students, ask them to read, and then the students do the task. Those kinds of conventional activities have some consequences. In this modern era, teacher nowadays should innovate and need more than textbook or other printed material to improve the process of teaching and learning and engage the students. Teachers can use some technologies such as PCs, laptops, LCD projectors, and internet which can facilitate teaching and learning process to gain students’ motivation in reading. One of the efforts that can improve the quality of teaching is by utilizing Information Communication Technology (ICT) via multimedia [4]. It refers to combine the various types of content such as text, audio, graphics, animation, video, and images. Those combinations are considered more interactive features than printed materials. Through the multimedia, the potential sense of students can be accommodated [4]. Multimedia is one of the influencing media that can enrich students’ learning outcomes. Using multimedia can help to promote deeper learning and has positive impact in creating learner center environment. It also able to gain better students’ attention and encourage students’ participation during learning process. Therefore, the utilization of multimedia should be applied to students that are integrated with technology. According to those issues, this study is considered to find the solution in order to facilitate the students in learning language, especially reading skill of narrative text. This study focuses on developing the appropriate multimedia for teaching reading of narrative text which can increase students’ interest and motivation in learning English according to national standard competencies. The product provides interesting components and applies game-based learning. It applies the principle of game design to engage the students with educational material in playful and dynamic way. It is designed not only to play by the students, but also to contrive the learning activities for drilling them.

2. Methods

Developmental Research design was chosen by the researcher to conduct the study since the aim was developing new product to apply for educational purposes. The product of this study was learning multimedia containing some reading material and activities about narrative text for tenth graders students. The model of this study referred and adapted to [1]. The steps were need analysis, product development, expert validation, first revision, tryout, final revision, and final product.

![Figure 1: The Small-scale R&D Cycle of Borg and Gall's Theory Adaptation](image-url)
The data of this study were the result of need analysis for development materials, the result of product validation, and response of product try-out. Those data obtained from the expert who validates the product, and the students of X KJB at SMK PGRI 3 Malang as the participants in this study.

In collecting the data, the research instruments consisted of three types of questionnaire to conduct this study. The first questionnaire was used to obtain the data concerning the information about learners’ and learning needs. The questionnaire was adapted and combined from [5] and [6] for finding the learners’ and learning needs related to narrative text. The second questionnaire was used for expert validation to validate the product, get the comment, suggestion, and feedback for revising to make the betterment design. The questionnaire was adapted from [7] and [8] in the form of numerical scale. The validation consisted of two main indicators that were validation of content and media. The third questionnaire was used to collecting the data about students’ perception and judgment of the product in try out process. The questionnaire was adopted from [8] that has filled by the students who joined the tryout.

The researcher collected all the data by distributing the research instruments. The data were taken from need analysis that conducted in the beginning process to know the requirement of developing the product. The other data was also obtained from expert validation and students’ questionnaire after the try out process. The data collection was analyzed in the form of quantitative data. The need analysis data was calculated in the form of percentage from each answer on the questionnaire. The two highest percentages of each question were considered as the tendency of students’ need. The expert validation data used numerical scale as the type of the second questionnaire. The data was analyzed descriptively by using quantitative data conversion by [9]. The data conversion was considered to determine whether the product was already appropriate to use or not. While, the result of trying out the product was also analyzed qualitatively.

3. Results
The result of this research can be stated as follows; the need analysis was conducted as the first step to obtain the information about target and learning needs of the students by distributing the questionnaire to X KJB students at SMK PGRI 3 Malang. The questionnaire was in the form of multiple choice which consisted of 20 questions. There were 18 students who filled the needs analysis questioner consisted of 14 males and 4 females. The questionnaire of need analysis involved two distinctions between target needs and learning needs based on Hutchinson and Waters (1987).

The analysis of target needs involved into four subcategorizes which were goal, lacks, necessity, and want. The students’ goal or motivation in learning English were to master English and to be able to study abroad. However, the students had some lacks related to their English proficiency especially reading. Mostly, the students were able to read English text, but they could not understand what the text was about. They also found the gap between knowledge of grammar and the target knowledge of grammar that used in the text. It happened because 50% of the students were still lack on mastery vocabulary and unable to understand structure (grammar). In learning narrative text, the most of the students which were 38.89%, claimed that they got difficulty in mastery vocabulary in the past form. Then, 33.33% of them was also got difficulty in understanding the text. Therefore, 61.11% of the students needed to be able to master a lot of vocabularies and use the structure (grammar) correctly in order to achieve reading activities. According to the students’ reading skill of narrative text, it concerned three aspects about reading comprehension, vocabulary, and grammar to determine the students’ target needs. Meanwhile, the students needed some components to help them to learn. Mostly, the students preferred to have many texts and followed by the exercises related to text. Some models of activity were also demanded by the students to vary the tasks. The performance of audio, video, and image could help the students in order to complete the tasks.

The material referred to curriculum 2013 which had been used by the school. It related to topic of subject in KD 3.8 which was analyzing the social function, generic structure, and language feature of narrative text. It included determining the suitable texts, context, and tasks, and created the clear instruction.
Based on figure 2, each category involved four sections, namely Highlight, Learning Objectives, Activities, and Reflection. First section was Highlight which gave a general description of what would be learned by the students. Then, the next section was Learning Objective that defined the expected goals of the lesson. The third section was activities which had fifth tasks contained texts, explanations, and quizzes. The last section was Reflection. The students were asked to reflect their feeling and achievement after finishing the tasks.

After creating the material, the researcher started to develop the media based on the following concept.

Based on figure 3, Introduction part was the opening of the learning multimedia to welcome the user. It comprised the title of the multimedia, and the users’ grade. Then the user moved to the next part which involved Start and About Game. Start button was the main page that covered the link to KI & KD, Learning Activity, and Evaluation. Meanwhile, About Game presented the general information related to the developer of the product, description of the product, and the references. All the materials and exercises were presented in Start page. KI & KD involved core and basic competence of narrative text for tenth grade based on syllabus of curriculum 2013. Then, the second part was Learning Activity. It consisted of some exercises that was divided into three different categories that were Reading Comprehension, Language Feature, and Vocabulary. The last was Evaluation to assess the students after doing some tasks in Learning Activity.

After developing the first draft of the learning multimedia, the researcher validated both content and media to the experts. There were four aspects to evaluate the content of multimedia which were content appropriateness, presentation, language, and layout. It aims to know whether the selection of material was

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appropriate to use by the tenth grades students or not. The validation of those aspects showed that the total score was 80 and the mean value was 4. It was categorized as “Good” since the mean value was more than equal to 3.4 and less than equal to 4.2 based on quantitative data conversion by Suharto (2006). Meanwhile, the media validation was conducted that the aim was to know the quality of the product before implementing it to the students. There were five aspects to evaluate the quality of the multimedia which were presentation design of the media, audio and physical appearance, autonomous language leaning, design and display of user’s manual, and CD packaging. The result of media validation showed that the total score was 103 and the mean value was 4.12. It was categorized as “Good” since the mean value was more than equal to 3.4 and less than equal to 4.2. Mostly, it could be indicated that the learning multimedia was appropriate and suitable to use for tenth grades students of Vocational High School. However, it needed some revisions by considering the suggestion and feedback from the expert.

After obtaining the judgment from the experts, all the assessment and suggestion were considered valid. The next step was trying out the product that the aim was to see how useful and effective the product is. Based on the result of product try-out, it showed that the students mostly gave the positive response toward the learning multimedia. All the students stated that the learning multimedia was interesting. It was easy to be operated because there was no difficult part to run. The available of image, video, and audio made the learning multimedia more attractive. By using the multimedia, the students could finish almost all the tasks correctly. It motivated the students and helped them to understand narrative text.

4. Discussion

The Content Aspect of Learning Multimedia

These were two points that considered to develop the content of G-Smartive multimedia. That were the result of need analysis and the syllabus curriculum 2013. The content should meet the criteria available in those concern. To design the kind of tasks, the researcher employed the result of need analysis. Meanwhile the syllabus curriculum 2013 was used to determine the indicators that should be achieved by the students regarding to core and basic competencies.

The content focused on narrative text which consisted of three main material. There were reading comprehension, language feature, and vocabulary. Those material were related the text genre regarding to the social function of the text, generic structure, and language feature used. The sub-skill of all materials focused on intensive reading activities. It referred to the use of the short texts, find the main idea, and develop an understanding of the text. It also covered the vocabulary knowledge, sentence organization, and texts genres. It related to Madani (2016) stated that the process of intensive reading emphasized on understanding the words, sentences, and paragraphs. It involved understanding of arguments, grammar structure, and details meaning. G-Smartive multimedia referred to interactive process of reading that applied the combination of bottom-up and top-down element. In order to comprehend the texts, this process carried out the important elements of linguistic signals have to be considered by the reader to create the concept of the text. Anderson (2008, in Nunan, 2015) stated that this is the best combination model because it connects the essential aspect of bottom-up and top-down model effectively.

The content in G-Smartive multimedia carried out the essential components of reading. There was Highlight section aimed to link the students’ previous experience or prior knowledge to the new information. It helped students to give an idea of what they will learn later. G-Smartive multimedia also provided vocabulary learning because there is strong correlation between vocabulary and reading comprehension (Boyer, 2017). Boyer also stated that the more words that the students knew and understood, the better they could comprehend the text. The material equipped with several vocabulary lists and audio that produced the sound of the words. It involved the practicing of reading aloud, hearing, manipulating the individual sounds within words, and determine its meaning to drill the students’ phonological awareness. Syntactic knowledge, fluency, and of course students’ comprehension also could be mastered (Madani, 2016). Moreover, the various materials or tasks provided in G-Smartive could be used to assess the progress of the students with different learning styles. It made the student were not getting bored, because the use of different types of tests and quizzes could engage the students. It also could build their critical thinking.

The Design Aspect of Learning Multimedia

In term of media aspect, G-Smartive multimedia used the background in every page. The different font style, size, and color were appropriate and readable. It could be used to catch readers’ attention, present
information, and emphasize certain word or phrase. There were also some pictures, audio, and video that could stimulate students' interesting and motivation, and improve language understanding. G-Smartive multimedia provided the combination of audio and visual image. Those components carried the performance of multimedia for supporting the learning process. It made more interesting than other printed material because it provided all combinations that incorporated into one. It also related to Ismail & Basri (2012) that multimedia can be more engaged learners’ attention and be more active. It could motivate the students to learn and change the conventional environment of learning.

G-Smartive multimedia could be used by utilizing computer as the mean. It became a facility for students to improve their skills. In term of learning process, the role of this learning multimedia could be a tutor, and a tool (Levy, 1997 cited from Wijaya 2016). It meant that G-Smartive multimedia could help to deliver the material during the learning process because it provided the material, exercises, and evaluation to drill the students. As the meaningful tool, G-Smartive multimedia could help the students to learn autonomous. The multimedia could be operated by utilizing computer as a mean. Mutlu & Eröz-Tuğa (2013) asserted that the implementation of CALL can increase students’ motivation levels, encourage students to take personal responsibility of learning, and be strengthen English language teaching program. It could be utilized since the schools nowadays had the computer laboratory. The other considerations were computer could choose and do high classification, and able to store large amounts of data.

5. Conclusion

The product was learning multimedia named G-Smartive (Getting Smart in Narrative). This learning multimedia was developed as aid to learn reading especially narrative text for tenth grade students. It contained three main materials that students needed to develop their ability. G-Smartive multimedia offered many kinds of lessons for the students to use. Students could choose what they want to learn. For reading, they could read several narrative texts and check their understanding by answering some questions related to the text. For vocabulary, the students could master the words listed in the multimedia, listen the audio many times, follow the sound to repeat and imitate how to pronounce it well. Meanwhile for grammar knowledge, the multimedia presented the material to build the students’ syntactic awareness in recognizing the grammatical structure between words and sentences.

The program enables the students to learn English in an easier way. With many kinds of different tasks, the students could choose their favorite parts to read and learn repeatedly. The students could learn independently through the multimedia because there was no limitation time and wall to access it. G-Smartive multimedia assisted the students’ learning more effective, interesting, and attractive. It also helped the teacher to handle the learning difficulties more easily and allowed to give guidance in studying quickly. In addition, the combination of image, text, audio, animation, and graphics created the atmosphere more comfortable, fun, and stimulate the students’ motivation. G-Smartive multimedia was convenient tool to help the students to apprehend and motivate them in learning English. Thus, the students could use the multimedia as self-access learning device. G-Smartive multimedia can be accessed only by using computer or PC as the mean. The interactive design still referred to static models. Hopefully in the future, the other researcher or developer can develop the dynamic multimedia by utilizing mobile assisted learning language.

6. References


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