DEVELOPING CofiD-20 GAME FOR TEACHING READING COMPREHENSION TO THE TENTH GRADE STUDENT: RESEARCH AND DEVELOPMENT

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Abstract

The purpose of this study was to determine the game as a medium for learning reading comprehension that focuses on descriptive text, to determine English reading skills for learning reading comprehension, and to determine the ability of teachers and students' responses to the use of these media for learning reading comprehension in high school. The researcher adapted Sugiyono’s research and development framework as a research reference. Adaptation is formulated in three phases, namely: basic research; design and development; and perception and finalization tests. The results showed that the game-based learning media had been validated by media and material experts and the responses of teachers and students had been carried out. The results of media experts 88.5% are included in the "Very Valid" category and an average of 81.3% material experts are included in the "Very Valid" category. The average teacher response was 87.2% included in the "Very Good" category and the average student response was 87.75% included in the "Very Good" category. From the results of the research above, it can be concluded that CofiD-20 Game as a learning media is valid and feasible to be used as a learning medium for learning reading comprehension.

Key words: Developing, Reading Comprehension, CofiD-20 Game, Game-based reading comprehension learning media.

1. INTRODUCTION

Reading is one of the language skills taught in the English learning process in addition to listening, speaking, and writing. Reading is an important language skill to be taught to students because it can help students to understand and analyze all written texts. Students are also expected to be able to use it in everyday life. Thus, reading can help students obtain information or verify existing knowledge. (Nunan: 2003). Learning to read English needs to be studied thoroughly because students have different experiences in learning to read (Jismulatif, 2019). SMAN 1 Garum is one of the schools that implements the 2013 curriculum as a guide in the teaching and learning process. Based on the 2013 high school curriculum syllabus, there are several texts studied such as narrative text, recount text, descriptive text, procedure text and report text. Students must know the definition, characteristics, and language features of the text. In this study, the researcher used descriptive text. The researcher chose descriptive text because this text has been studied by second year students. In
general, descriptive text is a text that describes people, places, and things. Descriptive text is one of the functional texts that is quite difficult for students to learn (Jismulatif, 2020). Many students have difficulty in reading. Students usually have difficulty in understanding the text and understanding it well. Comprehension means that students must understand all aspects of the text (Townend, 2003). Furthermore (Chastain, 1976) says that students are not required to understand every part of a sentence or paragraph, but they must understand the message the author wants to convey. Reading without understanding the meaning is an empty act. This means that understanding the text is the most important aspect of reading. Students in Indonesia have difficulty understanding texts, especially reading English texts. According to Oberholzer (2005) Reading difficulties can have a growing negative effect on students' schoolwork and higher education as reading requirements become larger and wider. Difficulties in understanding reading texts must be known and resolved by students and teachers because understanding reading texts is an important skill and indicator of achievement in reading that must be achieved by students. If students have difficulty in understanding the text, it will affect their learning. Therefore, this research is very important because knowing students' difficulties can lead teachers to solve students' problems and students can improve their reading skills. Based on these problems, the researchers were interested in analyzing students' difficulties in understanding descriptive texts.

Factors Affecting Difficulty

Student Comprehension in Reading Understanding problems can be caused by a variety of different factors. And influenced intrinsic and extrinsic factors. The understanding that weak, of course, makes it difficult for students to fill in the practice of reading text in the exam. Several factors cause low understanding reading (Westwood, 2008) are:

1. Limited vocabulary knowledge. Vocabulary is the most important component in create meaning. This is because The text consists of several words, namely vocabulary. If a student has difficulty understand what he reads, it's good
consider whether there is serious discrepancy between students’ knowledge of the meaning of words and words used in the text.

2. Less fluent in reading. A number of students often find these difficulties because they don't read well. Students who read too slowly or more fast often do not understand the text with good. Slow reading tends to limit cognitive capacity on letter processing and low level word than let full attention to the ideas and high-level concepts in the text. But very fast reading can resulting in accurate word recognition and important details are missed.

3. Less familiar with the subject matter. Usually at the first meeting, the teacher directly give apperception from the book school subject. Though it's best provide information in advance by other terms such as video, poster, small lecture, etc. However, it turns out that many teachers provide recognition theory using school textbooks directly. That matter make students less understand the text.

4. Text difficulty level. Text difficulty level is the main factor influencing whether or not a material can be read with understanding. Complex text in terms of concepts, vocabulary, sentence length, and structure is difficult for the reader to process. This means that students must read according to the level. For example, second year students taught descriptive texts, also in the third year. But the text level is different.

5. Use of effective reading strategies and inadequate. This causes difficulties that always occur in the process learn how to teach. Actually student requires a variety of strategies from the teacher, because the teacher as a facilitator and manager in the classroom. Strategy in reading very necessary to improve their understanding.

According Wahono. R.S, (2009), game is something that can be played by rules certain so that someone wins and someone loses, usually in concept unserious with refreshing goals. Playing games can be said to be a life style today’s society. Starting from the age of children until adults also like video game. That all because play video game is a fun activity (Anggra, 2008). Game theory is a way of learning used in analyzing a number of players or individuals who show rational strategies.
Game theory was first discovered by a group of mathematicians in 1994. The theory was put forward by John Von Neumann’s Oscar Morgenstern, according to him the game consists of a set rules that build the situation compete between two to several people or groups by choosing a strategy of built to maximize own victory or minimize opponent’s victory. Regulations determine possible actions for each player, a number of information was received by each player as the player progresses and number of wins or losses in various situations. (Von Neumann, the theory of games and economic behavior (3d ed.1953).

2. RESEARCH METHOD

The design of this research is Research and Development (R and D). The purpose of this research is to develop a new media for teaching speaking skills of tenth graders of high school. As Sugiyono (2016:297) said that “Research and development is a research method used to produce a certain media, and test the effectiveness of certain media”. The media developed from this research is based on the problems found in the field. The media that will be developed is hand puppet video media for teaching speaking to tenth grade in Senior High School.


Figure 1 Research and Development (R&D) Procedure adopted from Sugiyono’s model (2016:298)
To produce products that are right on target and development can be done easily and efficiently, given the limited cost and time available, the researchers adapted by Sugiyono's model into the following framework:

1. Initiating concept of research.
2. Develop data collection instrument (interview guide, field observation, field note, recording, document).
3. Develop data analysis instrument using contact summary.
4. Analyze policy study.
6. Result of the research is solution.

Phase One was basic research which contains policy, field, and literature studies. Policy studies involve analyzing policies to determine their potential. Field studies were selected using the criteria of field studies conducted using observations, interviews, and documents to obtain information about the problem. Literature study is an analysis of research results and theories to find solutions. Both policy studies and literature studies use content analysis.
The second stage is design development. The results of the design development were validated by Yusniarsi Primasari, M, Pd, Dimas Angga Saputra, S.Sos, and Muhammad Hudan Syifa', S.Kom. as material experts Evi Candra Juwita, S.Pd, Tarminingsih, S.Pd, and Miza Rahmatika Aini, SS, MA,. After validating the design, the researcher revised the design based on the validation results.

The third stage is the perception test and finalization. Researchers responded to teachers and students using a questionnaire, the subject of this study used purposive sampling. The research subjects were random teachers and grade X students of SMA Negeri 1 Garum, SMA Negeri 1 Sutojayan and SMA Negeri 1 Kesamben to conduct a fit and proper test. After the responses of teachers and students, the product was evaluated by experts using evaluation criteria. After getting approval from all experts, the product is published for high school.

3. RESULT AND DISCUSSION

3.1 Result

3.1.1 Hypothetical Model and Product Specifications

The hypothetical model of this research shown as follows:

Figure 3 Hypothetical Model and Product Specification

3.1.2 The Result of Experts Validation

Product development based on the validation of the hypothetical model has gone through several revisions. This has been stated in the previous chapter. The results of product development are validated by experts to determine the feasibility of the product before being used for product testing. This was declared valid by material experts (reading comprehension of descriptive text) and media experts. The validation results show that the product must be revised in accordance with suggestions and criticisms from the validator. The media validation criteria in this study include the following aspects; (1) Format and Display of Media (Learning Video Games), (2) Format and Display of Guidebooks, and (3) Uses/Benefits of Media. This research was conducted on Monday, July 20th, 2020 to Saturday, July 25th, 2020.
gave questionnaires directly and online to 3 experts. The result is calculated based on media experts showed that the media was valid.

Furthermore, the material validation criteria in this study include the following aspects; (1) The suitability of the material with KI & KD, (2) the material, (3) the use of language, (4) the benefits. The research was carried out on Monday, July 27th, 2020 to Saturday, August 1st, 2020. Researchers gave questionnaires directly and online to 3 experts. The results of calculations based on material experts show that all materials and questions are valid. The average expert validation is shown in table 1 as follows.

Table 1. The average experts’ validation
The conclusion is that the product received a good assessment from the experts and the product deserves to be continued to the next step.

### 3.1.3 The Result of Teachers’ and Students’ Responses

To find out how teachers and students perceive the use of the product, the researcher gave a questionnaire. Aspects of the questionnaire for teachers include, (1) Teacher’s Perception of Appearance, (2) Teacher’s Perception of Presentation of Material, and (3) Teacher’s Perception of Benefits, while for students it includes, (1) Student's Perception of Appearance, (2) Student’s Perception on Material Presentation, and (3) Student Perceptions about Benefits. Held on Wednesday, August 8th, 2020 to Monday, August 13th, 2020. To the teachers and students of class X. The results of the responses of teachers and students are shown in table 2 as follows.

<table>
<thead>
<tr>
<th>No</th>
<th>Expert</th>
<th>Component</th>
<th>∑ Score</th>
<th>Percentage (%)</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Media Expert</td>
<td>Media</td>
<td>332</td>
<td>88.5%</td>
<td>Very Valid</td>
</tr>
<tr>
<td>2</td>
<td>Material Expert</td>
<td>Content of English Material</td>
<td>183</td>
<td>81.3%</td>
<td>Very Valid</td>
</tr>
</tbody>
</table>

Table 2. The average of teachers’ and students’ responses

The conclusion is that the product received a good assessment from the teachers and the students, the product deserves to be continued to the next step.

### 3.1.4 Product Evaluation

The product was evaluated by expert with the criteria of teaching and learning material based on 2013 curriculum and syllabus. The product evaluation was explained as the following:

1) Media Design

From the validation of media experts, the researcher received several criticisms and suggestions. According to media experts, media should add some new icons as a barrier to its users to challenge the next level.

2) Design Guidebook
From the results of material expert validation, the researcher received several criticisms and suggestions regarding the manual. According to researchers, media experts should change the background of the guidebook and should use attractive colors that are consistent with one language.

3) Material

From the results of material expert validation, the researcher received several criticisms and suggestions regarding the material. According to material experts, researchers should add descriptive material about the history of other kingdoms.

3.1.5 The Final Model of CofiD-20 Game as Learning Media for Reading Comprehension for Class X High School Students.

To develop the media, the researcher must compile a product-making plan, namely media selection, format selection, and initial design:

The first step taken for learning media is media selection. Media selection is carried out to identify learning media that is relevant to the characteristics of the material. Media designing is divided into several stages, from designing to manufacturing. The design is based on references from several sources that produce a valid design. The CofiD-20 game application product has an attractive design, in accordance with the basic competencies of 2013. The resulting product is computer-based media to increase student interest and learning activities.

The second step in the learning media is the format selection. Selection of the form of material presentation is adjusted to the learning media used. The choice of format in development is intended by designing learning content and learning resources. Format selection must be adjusted to the characteristics of students. The resulting product is a medium to motivate students to learn.

The third step is making learning media, namely the initial design. The beginning
of the manufacture of this product was designed systematically where the researcher was assisted by a supervisor who provided input and suggestions for this product to be well structured.

This game is designed by the author to provide reading comprehension, because according to the author, students are too bored with the material without games, this game is designed in the form of an adventure game that is packed with historical material, and will provide broad insight for students. The game has been tested by the writer at SMAN 1 Garum and the English teachers in the area where the writer lives, and got a good response.

This strengthens the learning media theory according to Branch (2009: 98) which states that visual students learn the most through the visual senses. On the other hand, the results of this study are similar to Vernon's theory of intrinsic motivation in (2016) which states that teaching reading comprehension through games is really successful.

3.2 Discussion

Based on the research findings described by the researchers above and based on the three research problems in chapter I. It can be shown as follows.

The final model of the CofiD-20 Game is a platform-based digital game that can be run on a laptop or computer and can be accessed offline. In this context, it is possible that the increase in students' reading comprehension skills occurs due to visual factors. This strengthens the theory of learning media according to Branch (2009: 98) which states that visual students learn most through the visual senses. On the other hand, the results of this study are also in line with Vernon's theory of intrinsic motivation in Ibrahim (2016) which states that learning reading comprehension through games is really successful.

The results of this study strengthen the previous research by Kirana (2015) which showed that the use of Unity Game Engine as a learning media maker can improve students' writing skills, especially in descriptive texts. This means that the final model of this research supports these theories, but does not duplicate previous
research theories and concerns. This research reveals new and original models and products. Theories and concerns of previous research. This research reveals new, original models and products.

4. CONCLUSION AND SUGGESTION

4.1 Conclusion

Based on the results of the research above, it can be concluded that the game-based learning media consists of three levels, namely easy, medium and difficult as well as three guide books (for teachers, students, and general). The researcher found that on average 88.50% of media experts and 81.30% of material experts were included in the "Very Valid" category. The teacher's response was 87.20% and the student's response was 87.75% included in "Very Good". From these results, it can be said that the CofiD-20 game is valid, appropriate and can be used as an alternative for learning reading comprehension for class X students in high school.

The final stage of this research is the publication of the final product that has undergone several revisions and the final product is a product that has been suitable for use in the learning process which has been proven based on the results of expert advice, examiners, and supervisors. This product form is published in the form of an adventure game.

4.2 Suggestions

Based on the results of the validation and evaluation trials, researchers have suggestions for the results of this study to teachers, students, and other researchers. It has been helpful to provide the following suggestions;

(1) The teacher suggests using this game-based learning media as a medium for teaching and learning reading comprehension for class X students as a learning resource because it was developed based on student needs, validated by experts and the product has been tested. (2) Students suggest that this learning media can be produced immediately for fun and not boring learning materials and to improve their reading comprehension not only at school, but also at home. (3) For other researchers who are interested in the product and want to try the product to find out the advantages
and disadvantages of each product unit, it can be an effort to improve the product and add input for improvement.

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REFERENCES


