A Model of Digital Vo-Book with Crossword for Teaching and Learning Vocabulary in Seventh Grade Junior High School at Blitar: Research and Development

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Abstract

This research objectives are to develop a model of Digital Vo-Book with Crossword for Teaching and Learning Vocabulary, to find out the appropriateness of Digital Vo-Book with Crossword for Teaching and Learning Vocabulary, and to know the teachers' and students' perceptions toward the use of development Digital Vo-Book with Crossword for Teaching and Learning Vocabulary in Seventh Grade Junior High School. This research adapted Sugiyono's R & D model. These research problems consisted of six steps: (1) data collections and finding potential and problem, (2) design and development, (3) expert validation and revision, (4) teachers' and students' perceptions, (5) evaluation by experts and revision, and (6) final product and publication. The result of material validation 90.6% and media validation 85.7% included in the “Very Valid” category. The result of the teacher's perception of 88.2% and the student's perception 86.98% included in the “Very Good” category. It means that Vo-Book can be applied as an alternative media for teaching and learning vocabulary to seventh-grade students in Junior High School. The final product of the model consisted of a digital Vo-Book with a crossword, and 3 guidebooks for student, teacher, and public.

Keywords: Vo-Book, Crossword, Vocabulary

1. INTRODUCTION

Education is something that important at this time and one of the benchmarks for the progress of a nation, because education is an absolute necessity that must be met in human life. A nation can be said to be advanced if the education in the nation is advanced. According to Law no. 20 of 2003, education is a conscious and planned effort in realizing learning conditions and processes with the aim that students can develop their potential so that they have religious spiritual strength, personality, self-control, noble character, intelligence, and skills needed by themselves, society, nation and country (Hasbullah, 2013: 4). In Indonesia, due to English being an international language, English is a foreign language education. According to Richard and Schmidt (2010: 206), foreign languages are as follows: A language that is not the native language of a large number of people in a particular country or region is not used as a medium of instruction in school and is not widely used as a medium of communication in government, media, etc. Indonesia has structured English as a compulsory subject to be taught in formal school. As stated in the Kemendikbud 2013 Standard of Content, the purpose of teaching foreign languages, specifically English, is to improve the ability of students to connect with world society. The teaching includes the four skills, they were listening, speaking, reading, and writing also each of the micro-skills.

In English language teaching, students are not only required to master four skills: listening, speaking, reading, and writing, but also to master components such as English grammar, collocation, and vocabulary. Vocabulary plays a significant role in their efforts to
master the four language abilities. In other words, the narrower the vocabulary, the more difficult it will be for students to understand spoken and written English materials (Komariah, 2011: 13). The students' ability to understand the four language abilities of listening, speaking, reading, and writing may be harmed by their lack of vocabulary competence. Vocabulary was a unity of letters to be words which was formed by a set of user communities. Meanwhile, according to Penny (1991: 60) in Julita (2011), vocabulary could be defined as words that taught in a foreign language. In brief, vocabulary was a unity of letters that became words that taught in a foreign language. According to Arifah and Kusumaraasdyati (2013: 6), English language learners with limited vocabulary development are less able to comprehend a text at grade level than learners with rapid vocabulary development. As we have known that in the English curriculum junior high school has to master vocabulary at least 1500 words and to develop pupils vocabulary. The teacher must have teaching techniques so they can receive English easily. However, the students must develop vocabulary themselves too.

In this research, the researcher conducted observations in three Junior High Schools in Blitar, the observation conducted in SMP Negeri 1 Selopuro, SMP Negeri 2 Nglegok, and SMP Negeri 1 Nglegok. The data were collected through observation, interviews, and documents. The observation contains descriptive observation, selective observation and focus observation, especially English teaching and learning process in which focus on media was observed. From the result of observation in three Junior High Schools in Blitar, it can be concluded that the students' vocabulary achievement was lack and they need interesting media for learning vocabulary. One of the interesting media that can be used in teaching vocabulary is Digital Book. According to Searmadi (2016) Digital Book, or in Indonesia, is called BSE (Electronic Ebook) is a learning medium that is used now.

The effectiveness of using a digital book in learning vocabulary had been proved by some researchers, such as:

Aji (2015), with his research entitled "Learning Media Development Understanding and Maintaining a Conventional Type Starter System Based on Digital Books Electronic Publication (Epub)", revealed with the results of the validation by the material and media experts show average percentages of 89.70% and 86.80% which are in the good criteria. The average value before using digital books is 68.84 which increased to 79.03 and increased distribution the percentage of completeness before and after applying learning with digital books, which is 63.72%. Thus concluded that there is an increase in student learning outcomes.

Sari (2016), in her research entitled "Development of Digital Books through the Sigil Application in the Cookies and Candys Course", revealed the resulted of the assessment of the feasibility of digital book by experts with an average percentage of 95.23% rated "Very feasible" to be used as a learning medium. While the results of the assessment of media opinion by students are considered positive because it has an average percentage of 91.43% where digital pocketbooks can be used as learning media.

Wijayanti (2018), in her research entitled "Development of Physics E-book based on the Sigil Program for Students of SMPN 23 Simbang, Kabupaten Maros", resulted learning outcomes of students in the experimental class classically 85.19% of students who completed while in the classical control class 23.08% of students who completed the KKM value of 70. Classically the percentage of completeness above 80% is included in the high
category, then it can also be concluded that the application of Physics e-book class IX learning has a high effect on the learning outcomes of students.

But in this research, the researcher has different strategies or methods in different places. To make different strategies with other researchers, the researcher decides to teaching vocabulary by a digital book with crossword puzzle exercise in Html form and combine them. For teaching vocabulary, the teacher and the student need to have a suitable strategy for vocabulary mastery. The teacher must have a fun and creative strategy to teach vocabulary that can make students have an interest and pay attention to vocabulary mastery. It is impossible for anyone to learn a large amount of language quickly. Nonetheless, children are expected to master as much terminology as possible as a result of the government-created curriculum. Some students will be able to master it quickly, while others will struggle. As a result, it is necessary to find techniques to assist students in quickly mastering vocabulary, one of which is through the use of games in the teaching learning process. A crossword puzzle is a game that can help you learn new words. According to Webster (2015), a crossword puzzle is an arrangement of numbered squares to be filled in with words, with a letter assigned to each square so that a letter appearing in a horizontally placed word is usually also part of a word placed vertically, and numbered synonyms and definitions are provided as clues for the words. Another expert, Njoroge, Ndung’u and Ganthigia (2013: 313-321) define a crossword puzzle as a game that makes the teaching-learning process appealing and entertaining, as well as providing ample opportunities for students to practice and repeat phrase patterns and vocabulary. In addition, according to Prihantoro (2014), Crossword Puzzle is a puzzle game created to be able to enrich the mastery of English vocabulary.

From the problems by three Junior High Schools in Blitar, the advantages of the use of a digital book in teaching vocabulary, and the result of previous studies that proved audiences was effective in teaching vocabulary, the researcher wants to research the title of “A Model of Digital Vo-Book with Crossword Puzzle for Teaching Vocabulary in Seventh Grade Junior High School in Blitar: Research and Development”

2. RESEARCH METHOD

The research used in this study is Research and Development (R&D), so the researcher uses a combination of qualitative and quantitative approaches. Qualitative and quantitative approaches were used to analyze the data obtained from the field. The use of qualitative was reported descriptively, which about the results of the interview and observation. Quantitative method was the results of the validation from experts, teachers’ and students’ perceptions, and questionnaires that given to English teachers and seventh-grade students. Based on Sugiyono (2015: 7-8), the data were obtained from research in the form of numbers, data analysis was quantitative that aimed to test the hypothesis that has been set.

In this research, the researcher used Sugiyono's model to design this research. Therefore, the researcher adapted Sugiyono's framework and development as a reference. This is an adaptation and a procedure:
In phase 1 was data collection and finding potential and problem and solution. To find a problem and potential the researcher analyzed the problems that got by policy analysis and field study so that the researcher found the potential. In this research the first step taken by the researcher to conduct field studies in the form of observations, interviews, and documents. The researcher conducted observation in three schools in Blitar. On November 29th, 2019, conducted observations at SMP Negeri 1 Selopuro, on February 6th, 2020 conducted observations at SMP Negeri 2 Nglegok, and on February 7th, 2020 at SMP Negeri 1 Nglegok. In this research, the researcher looks for potentials and problems obtained through observation, interviews, and documents. Observations made by the researcher are observing the condition of the school, vocabulary learning media, and teaching process. The next data collection is based on the results of the interview with semi-structured interviews with teachers and students, where the interviewee could answer openly determined questions. Documents are observation checklist and daily scores.

In phase 2 was Design and Development. The researcher conducted a need analysis based on potential and problems to design the learning media. The researcher used the syllabus, curriculum, theories of vocabulary, learning vocabulary, potential and problems in school observation, media development, digital book, and a crossword puzzle. To design and develop the product, the researcher analysis the basic competencies and core competence to determine the appropriate material. Then, the researcher started looked for material and designed a digital book Epub form with the Sigil application and combining crossword from the Eclipse Crossword application. Whereas, the product was designed in
the form of a combination between Vo-Book (digital vocabulary book) and a crossword puzzle that was equipped by the guidebook.

In phase 3, Expert Validation and Revision. Validation of the products can be achieved by getting many qualified experts to review new concept products. The purpose of this validation is to find out where there are deficiencies in the product, and the researcher can improve the product to be made. Therefore, experts in this research and development are validators learning media consisting of two experts, there are media and material experts. Experts provide product evaluation using a questionnaire before revision. Validation was carried out by expert material on July 4th, 2020 by Mr. Paeran, S.Pd. then followed by Mr. Adin Fauzi, M.Pd on July 7th, 2020, and on July 8th, 2020 by Mrs. Hesti Puspitasari, M.Pd through Google Form. For media expert was Mrs. Feti Okta Lestari, S.Pd which has conducted the validation on July 9th, 2020. Then Mrs. Yusniarsi Primasari, M.Pd, which has conducted the validation on July 9th, 2020 by media electronic. And the last media expert is Mrs. Zunita Wulansari, S. Kom, M.T, which has conducted the validation on July 14th, 2020. After an expert evaluation is carried out and the expert provides input to improve the product, the researcher revises and carries out further validation. This stage is done to perfect the product.

In phase 4, Teachers' and Students' Perceptions. In this research, the researcher did not conduct product trials. Due to the Covid-19 pandemic, the researcher has only conducted small trials or what is commonly called product perception tests. This perception test was carried out on 5 seventh grade English teachers and 25 random students in seventh grade in Junior High School. The first teachers' perceptions on July 14th, 2020 by Mr. Paeran, S.Pd, the second teacher is Mrs. Nikmatus Sholikah, S.Pd who had conducted a perception test on July 19th, 2020. And then for third teachers' perceptions is Feti Okta Lestari, S.Pd who had conducted a perception test on July 21st, 2020. And the fourth and fifth teachers are Mrs. Endang Sulastri, S.Pd, and Mrs. Siti Masriaturohmah, S.Pd who had conducted a perception test on July 25th, 2020. For students' perceptions, the researcher conducted a perception test in the Sumberingin-Sanankulon “Bimbel Siswa Mandiri” with eleven students of seventh grade on July 17th – 20th, 2020. And the second place students' perception test on July 29th, 2020 with fourteen students of the seventh-grade small study group in Butun-Gandusari village. The research instrument is used as a questionnaire.

In phase 5, Evaluation by Experts and Revision. At the product evaluation stage, the validator provides an evaluation and input for the researcher on the product to be produced and revised them to perfect the product.

In phase 6, Final Product and Product Publication. After evaluation and revision, the researcher would have a final product in the form of the final model of Vo-Book for teaching and learning the vocabulary of second material seventh-grade junior high school, and produce the real products that include Vo-Book digital book, and three guide books. In the last step, the researcher would publish the product in a limited school. Especially for the school where the researcher did preliminary that is SMP Negeri 1 Selopuro, SMP Negeri 2 Nglegok, and SMP Negeri 1 Nglegok.

3. RESEARCH RESULT AND DISCUSSION

The final model of digital vocabulary book Epub form was called "Vo-Book" for teaching and learning the vocabulary of second material seventh grade junior high school and
combine the digital book with crossword puzzle with Html form. This product is saved on the USB disk with a reading application (Calibre and Reasily), Qr-Code, and includes three guide books (student's, teacher's, and public's guide books) that are packed in a cover box.

In this research, the researcher designed the product according to the syllabus and curriculum and made the final model validated by three material experts and three media experts. Product validation is carried out by the researcher to test the validity of the product by experts. After validated and received advice from experts, the researcher revises the product for improvement. The questionnaire data of validation and perception test analyzed with the steps as follows adapted by Sugiyono, 2016, SK (Criteria Score) = n.p.r. 1) n= Maximum Score. 2) p= The total of item questions. 3) r= The total of a subject. For percentages of the result of the questionnaire, the result of calculating data divided the total criterion score and multiplied 100%. The criteria of data analysis described below:

<table>
<thead>
<tr>
<th>Percentages</th>
<th>Description</th>
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<tbody>
<tr>
<td>81-100</td>
<td>Very Valid</td>
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<td>61-80</td>
<td>Valid</td>
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<td>41-60</td>
<td>Valid Enough</td>
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<td>21-40</td>
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Adapted: Sugiyono (2016)

Based on the results of the material validator with a total score of 204 and a proportion of 90.6%. This value concludes that is the value range of 80% - 100% in the criteria for scoring included is very valid. Based on the results of the media validator, it has a total score of 193 and a proportion of 85.7%. This value is concluded in the range of values of 80% - 100% in the criteria for scoring included in very valid. The result of the validity of the final product described below:

<table>
<thead>
<tr>
<th>No.</th>
<th>Validator</th>
<th>Total Score</th>
<th>Percentages (%)</th>
<th>Criteria</th>
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<td>1.</td>
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<td>204</td>
<td>90,5 %</td>
<td>Very Valid</td>
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<td>2.</td>
<td>Validator media</td>
<td>193</td>
<td>85,7 %</td>
<td>Very Valid</td>
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</table>

Due to the Covid-19 pandemic, the researcher used the perception test of 5 English teachers in random school and seventh-grade students in two different places, namely eleven students in "Siswa Mandiri" in Sumberingin-Sanankulon and fourteen students with small study groups in Butun-Gandusari village to find out the appropriateness of the product. The researcher gave 20 questions in a questionnaire on the English teacher's perception test which included an assessment of media presentation, material presentation, and media function.

The teacher's perception test got a total value of 441 with a percentage of 88.2% from 20 questions in a questionnaire. This value concludes that the value range of 80% - 100% in the criteria for scoring included is very good. Following are the results teacher’s and student’s responses:

<table>
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<tr>
<th>Statement</th>
<th>Teacher 01</th>
<th>Teacher 02</th>
<th>Teacher 03</th>
<th>Teacher 04</th>
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<th>Total Score</th>
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To students’ perceptions test, the researcher gave 15 questions in a questionnaire covering aspects of media presentation, material presentation, and media function. This assessment received a total score of 1.631 of 1.875 with a percentage of 86.98%. This value concludes that the value range of 80% - 100% in the criteria for scoring included is very good. So, the researcher concluded that student’s and teacher’s perceptions were very good in the use of Digital Vo-Book with Crossword to teaching and learning vocabulary in seventh-grade junior high school. Following are the results teacher’s and student’s responses:

Table 1.2 Students perception test

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Account: 441
Criteria Value: 500
Percentage: 88.2%
Account | 1.631
Criteria Value | 1.875
Percentage | 86.98%

The final stage in this research was the final product and publication. For the final product, Vo-Book saved in USB Disk consist of a digital book with second-semester material, crossword, QR-Code for digital book and crossword, reader application for computer (Calibre) and android (Reasily). The material of this product was about vocabulary for seventh-grade students second semester regarded vocabulary of an adjective, vocabulary of occupation, vocabulary of descriptive text, and vocabulary of a song. This product also was accompanied by a guidebook consisting of three types of guidebooks, namely a teacher's guidebook, a student's guidebook, and a public's guidebook. This product is packaged in a cover box 20 x 25.5 cm. In the last step, the researcher would publish the product in a limited school. Especially for the school where the researcher did preliminary that is SMP Negeri 1 Selopuro, SMP Negeri 2 Nglegok, and SMP Negeri 1 Nglegok.

From the results of this research, we can find out that a digital book can improve the quality of distance education. As the research of Aji (2015) states, the digital book has a deep potential to improve distance education. Presentation of the material on the digital book is more practical, interesting, and varied. Furthermore, the form of digital books can also be in the form of images, animations, and videos. Information or subject matter are displayed close together between text, voice, pictures, movement, and color will attract attention students are centered on learning, so students more easily understand the learning material.

Based on the results of this research, we can find out that learning using multimedia (digital book) is more effective than conventional media. This is in line with Sari (2016) which states that learning with multimedia is more effective than learning without using multimedia. In addition, digital books are lighter, efficient, and easy to operate, this is in line with Wijayanti (2018) which states that the use of the digital-book is more efficient in terms of time, aided by navigation buttons on the page or material selected.

4. CONCLUSION

Based on the results of the research, the researcher concluded that Digital Vo-Book with Crossword can be used to appropriateness for improved students vocabulary for seventh grade Junior High School. The final research consisted of the validation of three material experts, three media experts, judgments of five English teachers, and twenty-five students of seventh-grade junior high school.

The researcher applied the Research and Development (R & D) design which was adapted from Sugiyono (2016) design by following 6 steps: (1) data collections and finding potential and problem, (2) design and development, (3) expert validation and revision, (4) teachers and students perceptions, (5) evaluation by experts and revision, and (6) final product and publication.

The product specification of Digital Vo-Book with Crossword for Teaching and Learning Vocabulary in Seventh Grade Junior High School were: (1) 1 Cover box 20 x 25.5 cm; (2) 1 USB Disk 8 GB, for saved Vo-Book 81 MB, Crossword Practice 2,56 MB, QR Code for Vo-Book and crossword practice and reader application Calibre 62,58 MB and Reasily 4,45 MB;
(3) 3 Guide books 14.8 x 21 cm book size; (4) Applying full-color cover; (5) Using in white paper color; (6) Consisting of 4 chapters; and (6) Typing in Berlin Sans, Times New Roman, Curlz MT, Bookman Old style, Britanic Bold, Brush Script MT, Tw Cen MT Condensed and Elephant with 9, 10, 12, 14, 15, 20, 30, 40 Font size.

To find the appropriateness of Digital Vo-Book with Crossword for Teaching and Learning Vocabulary, the researcher validated 3 material experts and 3 media experts. This product obtained valid criteria with 90.6% (very valid) results from material experts and 85.7% (very valid) from media experts.

To know the teachers' and students' perceptions toward the use of the development of Digital Vo-Book with Crossword for Teaching and Learning Vocabulary, the researcher conducted a teachers and students perception test. Because covid-19 pandemic, this research does not conduct a trial, the researcher just conducted a perception test on 5 English teachers of seventh grade. From the results of the teacher's perception test, the result was 88.2% (very good). To students' perceptions, the researcher conducted a perception test in 2 different places, namely with 11 students in the "Bimbel Siswa Mandiri" Sumberingin-Sanankulon-Blitar and 14 students in Butun-Gandusari village. From the results of the perception test, 25 students got 86.98% (very good).

5. SUGGESTION

Based on the results of validation and evaluation, the researcher provides suggestions for research results to teachers, students, and other researchers. For teachers, the researcher suggested the teacher use the seventh-grade students’ English digital book material as a learning resource because it has been developed according to student needs and validated by experts. For students, the researcher suggests the students should be more active and diligent in improving English vocabulary, and students should practice improving vocabulary not only at school but also at home. In addition, to understand more about the importance of learning English. Besides other researchers who are interested in this product and want to try the product to find out the strengths and weaknesses of each chapter, it can be an effort to improve the product and add input for improvement. Many products can be used as English teaching materials that can be used as teaching materials and develop for other classes, not only for the seventh grade but also at every other class or level.
REFERENCES


Arifah, M., & Kusumarasdyati. 2013. *The effectiveness of Make A Match Technique for teaching writing descriptive text to the seventh graders of SMPN 1 Karangbinangun Lamongan. UNESA*.


Prihantoro, Agung. 2014. 100 Games for Teaching English: Pusparagam Permainan Seru untuk Mengajar Reading, Listening, Speaking, Writing, dan Developing Vocabulary (Yogyakarta: Pustaka Pelajar), hlm.156-158


Sari, Anggi Sekar. 2016. “*Pengembangan Buku Digital Melalui Aplikasi Sigil Pada Mata Kuliah Cookies Dan Candys*”


