Development of Reading Teaching Materials based on Visual Information in the English Language Education Study Program

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Abstract
The objective of this research is to create reading instructional materials that utilize visual information that are both valid and practical, while also being highly effective. The motivation for this research stemmed from the need to adapt the technique to the lack of visually-based reading materials for English language learners. This study employs research and development techniques based on the ADDIE paradigm. The data in this study is derived from primary sources, including the results obtained from data collection instruments, direct observations of students, and direct interviews with lecturers. Data gathering procedures were undertaken through observations, interviews, and documentation studies. Data analysis was conducted utilizing analytical tools within the SPSS software package. Based on the findings and deliberation, the following conclusions can be drawn: 1) During the analysis phase, the implementation of English reading skills learning at Tuanku Tambusai University yielded results by disseminating knowledge about the production of reading teaching materials that rely on visual information.Comma 2) During the design phase, two conclusions can be drawn: the development of learning materials for English reading skills and the creation of visual information for English reading abilities. Learning materials are specifically tailored to meet the requirements of the curriculum and the unique qualities of the students. Both the learning material design for English reading skills and the visual information design for English reading skills may be classified as excellent. 3) During the development stage, visual information book products and their supporting systems must meet high standards of quality in terms of validity, practicality, and effectiveness. 4) The use of visual information during the implementation stage has a substantial impact on students' English language reading skills. 5) The efficacy of utilizing visual information in enhancing reading skills was confirmed by an Effectiveness Test that assessed the students' attitudes. The obtained results indicate that the t-value (4,697) is greater than the critical t-value (1.69), and the significance level (0.000) is less than 0.05. Therefore, it can be concluded that there is a significant difference between the experimental class, which utilized visual information in reading skills, and the control class, which did not use visual information in reading skills.

Keywords: - Teaching Materials, English Language

INTRODUCTION

Reading is fundamental to the learning process and intellectual growth. The quality of human life can be seen in how humans maximize their potential. One effort to maximize one's potential is by reading. Reading is a means for humans to uncover the horizons of knowledge(Bambang, 2011). Granger and Meunier (2008)said that reading is an educational stage of understanding and an enjoyable activity because it produces positive results for the audience, which refers to second language learners. According to(Uslu, 2020), Reading is a dynamic process of constructing meaning that involves various skills and knowledge domains, including vocabulary and grammar knowledge, understanding of word meanings, prior knowledge of the subject matter, and the ability to reflect on and comprehend written materials. In addition, as stated by(Iwahori, 2008), reading is a very intricate task since it requires a profound grasp of skills such as inference, analysis, application, and evaluation in order to achieve genuine comprehension.

Reading means learning something to expand knowledge and exploring written messages in reading material. Another view is also explained by(Klingner et al., 2007)that "Reading is the process of constructing meaning by coordinating several complex processes that include reading words, knowledge of words and words, and influence." In the concept of literacy, learning to read is the ability to associate written discourse

with the representation of experiences, thoughts, feelings, and ideas that are appropriate for the purpose.

The ability to read is needed not only when studying at school but also throughout human life(Harsiati, 2018). It also means that reading activities carried out by readers generally aim to obtain the message conveyed by the author to the reader through writing(Inawati & Darningwati, 2020). Reading to obtain new information is done by 23.5% of the total population of Indonesia. It is in line with what was stated by(Bambang, 2011), which states that reading has not yet become a necessity for the Indonesian people.

For English students, reading is related to understanding a text, mastering vocabulary, understanding grammar, and pronouncing the words correctly.(Babapour et al., 2018)In reading activities, there is an essential component, reading comprehension, defined as a complex cognitive process in which the reader's previous knowledge and experience play a central role in interpreting what he has read. In addition, reading comprehension is considered a very complex skill, involving both low-level processing involving word recognition and higher-level processing related to gathering information in the reading text. (Tavakoli, 2011). Various variables, of course, influence this improvement in skills. One of the variables that determines student success is the availability of teaching materials used according to student needs.

As is known, teaching materials are vital as the primary medium for student learning. Through teaching materials, teachers and students will know the competencies that students must master and what strategies will be implemented in the learning process to achieve learning goals. For this reason, teachers must be able to create teaching materials that suit students' needs and learning goals or teacher-prepared materials to be more precise in targeting students (Tomlinson, 2013).

The same results were also shown by research conducted (Nurhayati, 2020)states that the reading teaching materials developed are based on the criteria for ESP materials and e-learning materials, the materials developed are categorized as perfect materials, and the research results show that the material developed can improve students' reading comprehension. Research conducted by(Rijal and Egok, 2019)explained that reading teaching materials oriented preview, question, read, reflect, recite, and review can help students understand the reading content according to the reading stages.

The results of research conducted by(Susanti et al., 2018) show that the development of gender-based reading teaching materials and a culture of familiarity is efficacious in improving students' reading comprehension, which means that the principle of gender equality applied in the construction of reading materials proves to be able to increase student interest, both male and female students. In addition, familiar cultural content, vocabulary, context, place, and other aspects of reading materials help students activate existing knowledge during the reading comprehension process, making it easier to understand what is being read.

Learning products in the form of Aswaja-based English Supplementary Materials are being developed to improve students' reading skills.(Andriyani et al., 2019)States that textbooks are the primary source of learning for students to read. Supplementary books can help students master reading vocabulary and sentence structure, especially in foreign languages. Reading can be said to be an interactive activity in order to understand the meaning contained.

The study was carried out based on the results of the review. However, there have been several previous discoveries regarding reading teaching materials and other field findings that have been disclosed, and the researcher sees that there is still a gap in research results, which the researcher considers the need for further research in this case in the form of developing teaching materials Reading based on visual information.

Teaching materials must be developed according to these objectives to improve students' understanding and manage information from each reading material studied. Teaching materials can be developed on a visual information basis because visual information uses mental images, which can strengthen students' reading comprehension(Zeigler & Johns, 2005).

Some studies have suggested that visual information-based English language teaching has had a constructive impact on improving EFL learners' English language skills. Research results (Carney & Levin, 2002; Hashemi & Pourgharib, 2013; Sadeghi, Karim, and Farzizadeh, 2013)show

that *visual information* can strengthen memory and improve understanding and mastery of new English words. Visual information-based learning can reduce student's anxiety in English listening tests(Lee et al., 2015). So, language learning, mainly English based on visual information, can improve students' mastery of words and their productive and receptive skills. Several factors form the basis for the need for research and development of Visual Information-based Reading Teaching Materials.

RESEARCH METHODS

This study focuses on Research and Development (R&D) using the ADDIE paradigm for development purposes. The equipment utilized for gathering information or conducting research data include: 1) Questionnaire Sheet; 2) Test (pre-test and post-test); 3) Interview Guide; 4) Observation checklist. This study employs two distinct methods for data analysis: qualitative data analysis techniques and quantitative data analysis techniques. This data analysis technique use a flow model to analyze qualitative data. The initial technique used in flow modeling is data reduction. This technique is employed to extract data that is present in written field notes. The ultimate method involves drawing inferences or doing verification that researchers perform on the data.

RESEARCH RESULTS

1. Analysis Phase Development Results

At the analysis stage, the results of the implementation of reading skills learning in English, which had been carried out at Tuanku Tambusai University, were obtained by distributing questionnaires, so it was known that the development of visual information-based reading teaching materials was needed. This analysis stage consists of curriculum analysis, needs analysis, student characteristics analysis, and student problems. The document analysis results of the English Language Education Study program curriculum at Pahlawan Tuanku Tanbusai University show that reading is essential for students to master. It is proven by offering several reading courses students must take, including Reading I, II, and III. Results of needs analysis: Students admitted they had difficulties starting the drafting process. The results of the student characteristics analysis are seen in terms of student reading ability and response to learning.

Problem-problems faced by students relating to teaching materials in the process of learning to read (reading) in English are expressed using a questionnaire whose items are grouped into pre-reading, whilst-reading, and post-reading activities

2. Development Results Design Stage

The design stage in this research aims to determine the developed book's design. The book developed was designed based on the analysis stage. From the analysis stage, it can be concluded that lecturers and students need books that motivate students to better master the expected competencies in reading learning material. Apart from that, lecturers also need a book to help them make it easier to teach reading material to students. Therefore, three books were designed at this design stage: a development model book, 2) a textbook for students, and 3) for lecturers.

3. Development Results of the Development Stage

Development is the stage of product development. At this stage, the researcher takes several steps: (a) carrying out a formative evaluation and (b) revising the prototype.

a. Conduct Formative Evaluation

1) Book Validation Results Visual information-based reading teaching material model

Table 1. Book Validation Results Model of visual information-based reading teaching materials

Conclusion of Model Book Validation Results			
No	**Rated aspect**	**Average**	**Category**
1	Content	4.42	Very Valid
2	Graphics	4.45	Very Valid
3	Language	4.04	Valid

4	Learning Category	4.33	Very Valid
	Average	**4.31**	**Very Valid**

Based on the table above, it can be concluded from the results of the validation carried out by experts that overall, the visual information teaching material model book in reading skills obtained an average of 4.31 or was in the very valid category. The results of expert validation show that validation in terms of content, graphics, language, and learning categories of visual information teaching material model books in reading skills is in the very, very valid category. Based on the validation results by six validators, it was stated that this visual information teaching material model book in reading skills was suitable for use with slight revisions.

2) Lecturer Book Validation Results visual information-based reading teaching materials.

Table 2. Book Validation ResultsLecturervisual information-based reading teaching materials

Conclusion of Validation Results of Lecturer's Books			
No	**Rated aspect**	**Average**	**Category**
1	Content	4.47	Very Valid
2	Graphics	4.44	Very Valid
3	Language	4.32	Very Valid
4	Learning Category	4.33	Very Valid
	Average	**4.39**	**Very Valid**

According to the data provided, it can be inferred that the lecturer's book on visual information learning significantly enhances students' reading skills, with an average rating of 4.39, placing it in the "Very" category. Accepted. The professional validation of this book demonstrates that its development in terms of content, images, language, and book learning categories is very valid. All validators concur that this book is appropriate for use with little modifications, indicating that all evaluated aspects meet acceptable requirements, hence obviating the need for substantial alterations and re-validation.

3) **Results of Validation of Visual Information Learning Student Books in Reading Skills**

Table 3. Book Validation ResultsVisual Information Learning Students in reading skills

Conclusion of Student Book Validation Results			
No	**Rated aspect**	**Average**	**Category**
1	Content	4.14	Valid
2	Graphics	4.31	Very Valid
3	Language	4.25	Very Valid
4	Learning Category	4.35	Very Valid
	Average	**4.26**	Very Valid

According to the provided table, it can be inferred that the books designed for visual learners to improve their reading skills had an average rating of 4,261, which falls under the "very good" category. Accepted. The expert validation of this book indicates that the development and production of its content, images, language, and learning categories are of high quality. All validators unanimously concluded that this book was appropriate for use with minor modifications. This

indicates that all evaluated aspects met the acceptable requirements, eliminating the need for substantial alterations and revalidation.

b. Make Revisions

Following the advice of experts and FGD participants, revisions were made relating to the products developed in this research, which will become revisions for product books, namely model books, teacher books, and student books. The results of the revisions at this stage produced a prototype II that was valid and could be continued in limited trials. Based on suggestions from validators for revising the visual information learning model, all validators provided assessments during the validation process. However, there are still several things that need to be improved in the model that has been created. Suggestions and input from validators have been improved to produce a valid learning model, and suggestions from validators will be revised as formative evaluation.

4. Implementation Stage

A short trial of the model implementation was conducted at Tuanku Tambusai University. This preliminary trial was undertaken to ascertain whether the model met the anticipated objectives before to proceeding with the comprehensive test. Prior to implementation, the researcher acquaints the lecturer with the directions for integrating the model into the classroom learning process. In addition, teachers are provided with various educational resources, including as model books, lecturer books, and student books, to enhance their understanding of how to effectively implement the instructional model.

The experiments done at Tuanku Tambusai University demonstrated that the utilization of the visual information learning model effectively enhances reading skills, achieving an average rating of 4.17, which falls within the "good" category. Based on these findings, a more extensive study was carried out on the learning model for visual information in reading skills.

Based on the results of product revisions, according to validator suggestions and assessments. So, the next step is to test the product in small groups. Before the trial, discussions were held with teachers and students regarding applying the visual information learning model and using supporting systems like lecturer books and student books.

In the trial, they used the visual information learning model. Apart from that, the learning process can be seen from the teacher's habits in using commonly used models, so testing is also influenced by the lecturer's previous teaching habits. After the product has been revised, extensive testing is conducted. Before that, researchers held discussions with teachers, students, and observers before extensive trials were conducted. Practicality is obtained based on practitioner assessments, observations, and interview results from lecturer and student books.

5. Evaluation stage

a. Practical Results

1) The practicality of Model Books for visual information teaching materials in reading skills

The practicality of the visual information learning model book in students' reading skills is seen from the practicality of each item in the assessment aspects, which is found to be practical. Based on the assessment indicators mentioned above, it can be inferred that the average score is 4.15, which falls into the practical category. Therefore, the visual information learning model book for reading skills is deemed practical and suitable for usage.

2) The practicality of lecturer's booksVisual information learning model in reading skills)

The practicality of visual information learning lecturers' books in students' reading skills is in the practical category. It can be concluded that the overall indicators from the practical assessment aspect of lecturers' books carried out by 6 validators obtained an average of 4.15 or practical. So, the practicality of the lecturer's book on learning visual information and reading skills is declared practical and suitable for use.

3) Practicality of Visual Information Learning Student Books in Reading Skills

The practicality of student books for learning visual information in students' reading skills can be seen from the practicality of each item in the assessment aspects. It can be concluded that the overall indicators from the practical assessment aspect of teachers' books carried out by 6 validators obtained

an average of 4.39 or very practical. So, the practicality of students learning visual information in reading skills is very practical and suitable.

b. Effectiveness

The model's effectiveness is further evaluated by testing using quasi-experiments. This quasi-experimental research aims to examine the impact of the visual information model compared to the traditional learning model on students' learning results in visual information. Specifically, it focuses on the difference in learning outcomes related to English reading skills. This quasi-experimental study seeks to establish the superiority of the visual information learning model compared to conventional models. It may be inferred that there are notable disparities in reading skills between the experimental class that utilized the visual information learning model and the control class that did not employ the visual information learning model. Apart from the results of the questionnaire distributed, researchers also looked at students' reading skills by giving tests where students who received treatment using the storytelling learning model improved more than students who were taught conventionally.

CONCLUSION

Based on the findings and analysis presented in the previous chapter, the following conclusions can be drawn:

1. At the analysis stage, the following results were obtained from the implementation of reading skills learning in English, which was carried out at Tuanku Tambusai University: Based on the results of research using distributed learning, it is known that the development of visual information-based reading teaching materials is needed.
2. At the design stage, two conclusions can be put forward: the design of learning materials for English reading skills and visual information for English reading skills. Learning materials are designed according to curriculum demands and student characteristics. Learning design and English learning materials are derived from students' essential competencies and characteristics. Components describing visual information for English reading skills include syntax, social system, principle of reaction, support system, direct effects, and accompanying effects. The average value of the English reading skills learning material design and the English reading skills visual information design can each be classified into the very good category. These results indicate that visual information design for English reading skills and its supporting system is valid based on rational thinking.

3. At the development stage, visual information book products and their supporting systems have high generic quality criteria regarding validity, practicality, and effectiveness. The visual information book and its supporting system have high validity because product development has considered relevance and consistency. Regarding relevance, visual information book products and their supporting systems, such as English syllabi and RPS, lecturer books, and books for students, are based on scientific knowledge. From scientific knowledge, conceptual elements to describe visual information for English reading skills include syntax, social systems, reaction principles, support systems, direct and accompanying effects, and philosophical foundations and learning theories.
4. The application of visual information in the implementation stage significantly affects students' learning outcomes in English reading skills. The application of MPS significantly affects aspects of students' knowledge because of the supporting characteristics of communicative and contextual learning.

5. The effectiveness of utilizing visual information in reading skills was confirmed through an Effectiveness Test that examined the students' attitude elements. The obtained results indicate that the t-value (4,697) is greater than the critical t-value (1.69), and the significance level (0.000) is less than 0.05. Therefore, it can be concluded that there is a significant difference between the experimental class, which utilized visual information in reading skills, and the control class, which did not use visual information in reading skills.

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