



The Development of Interactive Multimedia Writing Expository Text by Implementing Project Based Learning in Student of MTsN 1 Medan

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Abstract

This study aims to determine the result of the development of interactive multimedia writing expository text in Students MTsN 1 Medan. The media being developed is in the form of interactive multimedia. This type of research is development research based on the 4-D development model. The trial subjects consisting of design experts, material experts, Indonesian language teachers, and class VIII students of MTsN 1 Medan. The results showed that (1) the validation of the material experts included the eligibility of the content of 88.0% in the good category, the feasibility of the presentation of the learning module in 93.7% of the very good category, 95.8% of the interactive multimedia aspects of the very good category, 92 aspects of language assessment, 5% very good category, and project based learning aspects 83.3% good category (2) design expert validation includes initial design 89.2% with good category, content design 83.9% good category, media typography 83.3 good category, and illustration 87.5% good category. (3) the limited trial obtained a score of 82.79% with good criteria (4) The extended trial obtained a score of 80.04% in good category. Results of learning to produce a text exposition s Before the use of interactive multimedia to the model of project-based learning at 62 , 9 while the learning outcomes produced expository texts using interactive multimedia with project based learning models gained 80.8. The difference obtained was 18 from

before and after using digital media with the application of project based learning . This study have the implication that media is being developed will practically contribute especially in the implementation of the learning process for teachers as supplementary teaching materials to ease the burden on the material being taught to be independent and classical. Furthermore, students can improve the quality of learning, especially in expository writing text activities with the content of learning interactive multimedia in it with project based learning model . Related to activities of working together and motivating each other to complete an expository text.

Keywords: *interactive multimedia, exposition text, project based learning model*

A. Introduction

Students in this case also still have difficulty digesting and understanding the material presented by the teacher. Conventional learning does not attract students' attention in following the learning process. The low level of understanding and motivation of students towards the material being taught is influenced by several factors, including the accuracy of the method and the absence of learning media used in learning activities, which makes it difficult for students to put their ideas into writing.

Research on the development of interactive multimedia-based exposition text learning with the application of the project based learning model is designed so that the resulting learning process is valid to be used by teachers and students in the learning process according to the potential that students have. This research begins by examining the analysis of the needs of the research subject which will then be used in the development of interactive multimedia-based exposition text teaching materials with a project-based learning model in Indonesian language lessons. The resulting digital media is expected to support the implementation of learning to write exposition text. Furthermore, it can help students regain enthusiasm and achievement in writing exposition texts.

B. METHODS

1. Location and Time of Research

This research was conducted at MTsN 1 Model Medan. Time The study was conducted in October-November 2020

2. Population and Sample

This research and development population is the VIII grade students of MTs Negeri 1 Model Meda in the 2020-2021 learning year. To see the effectiveness of the product being developed, the researchers only took a sample using a cluster sampling technique. Researchers took a research sample of 30 students from class VIII-3

3. Research design

This type of research is the type of research development or Research and Development (R & D). Sudaryono, (2013: 11) research and development model or Research and development (R & D) is a research model used to produce certain products and test the effectiveness of these products. The development research model used in this study is the 4-D model. Stands for Define, Design, Develop, Disseminate.

The activities carried out at each stage of development can be described as follows.

4. Research procedure

The learning model developed was analyzed using the validation of the material expert team and the interactive multimedia development design and the assessment using a rubric developed by the researcher by modifying the expert's opinion. The interactive multimedia criteria developed based on the suitability criteria for interactive multimedia development are arranged by using images, animation, video, sound into writing, so as to encourage students to write exposition text based on their individual experiences. The product to be produced is digital media that can make it easier for students to learn independently and digital media can be taken anywhere. Thus the media to be produced is still based on interactive multimedia with the application of project based learning. the development of experiential learning media based on the

research and development model of the learning system, namely the 4-D model. The 4-D model stands for Difine, Design, Develop, Desseminite.

Interactive Multimedia Development Draft

The development that will be used to develop interactive multimedia-based learning in this study is the 4-D model developed by Thiagarajaan (1974). The 4-D model stands for Define, Design, Develop, Desseminate.

The development steps in this research are as shown below:

Figure 1. 4-D Learning Device Development Model (Thiagarajan, Semmel, and Semmel 1974)

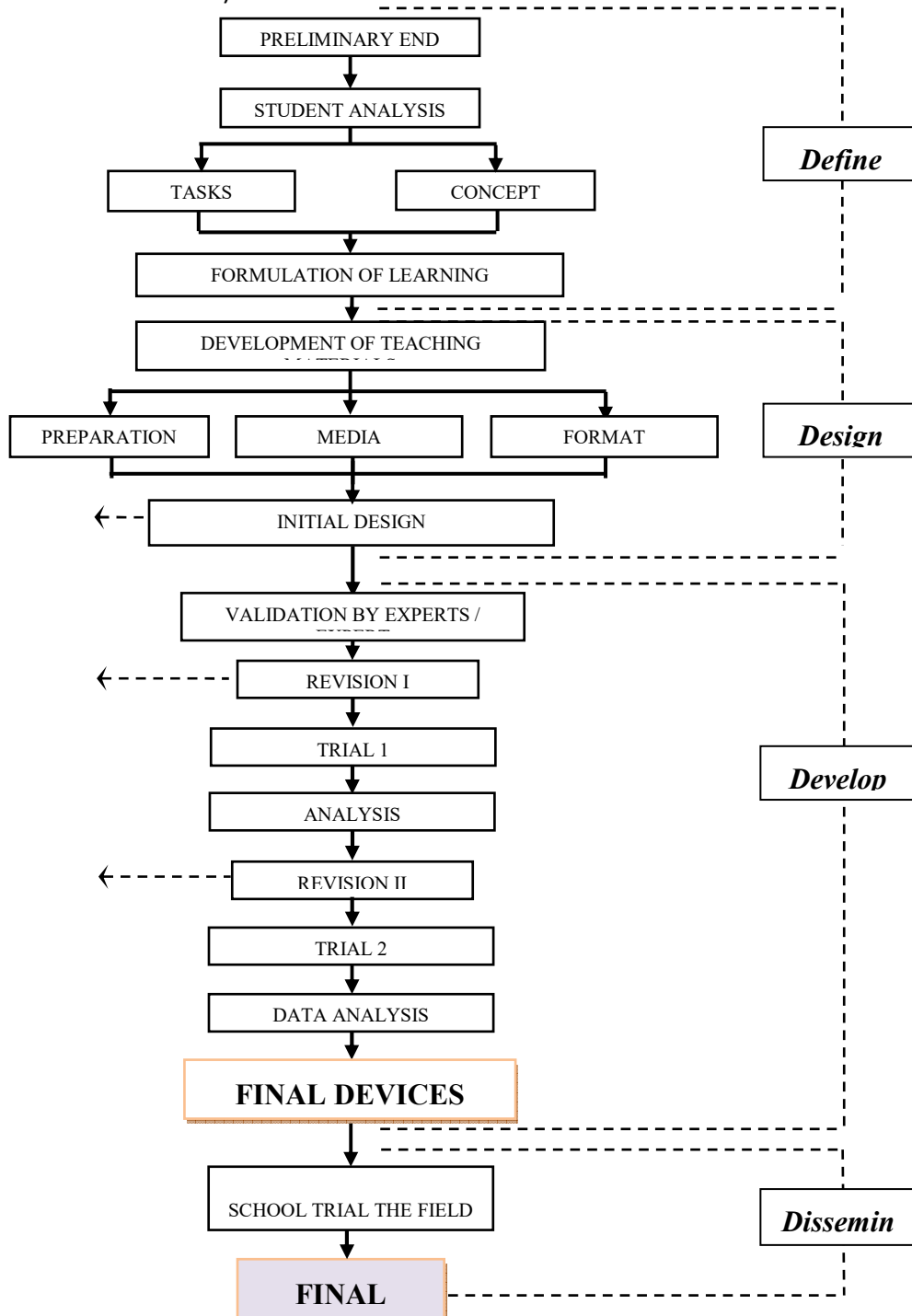


Figure 2. Interactive Multimedia Development steps

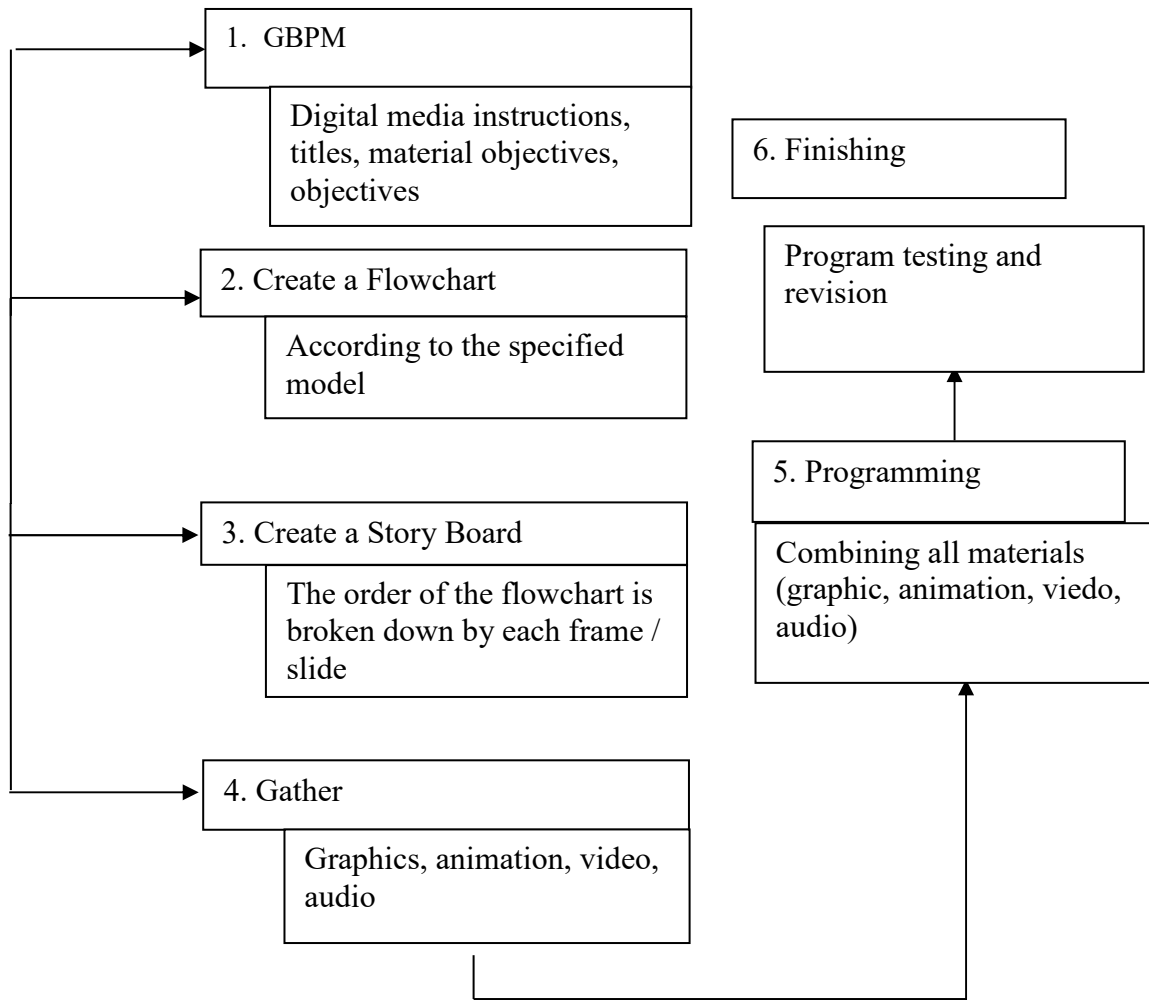
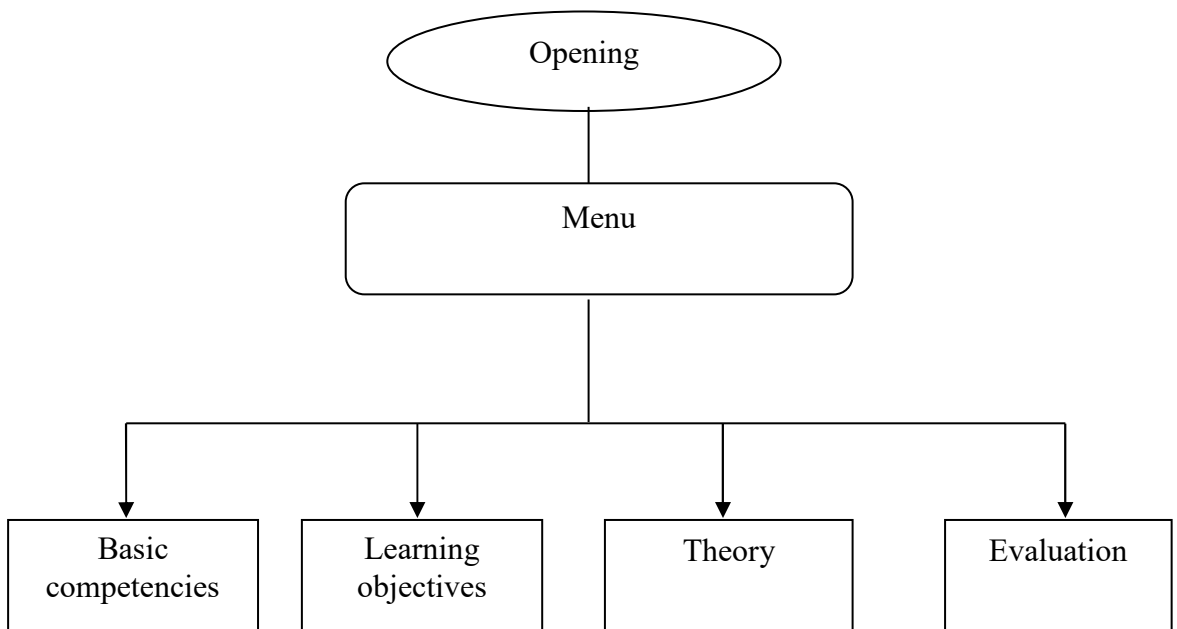


Figure 3. an example of a flowchart model in interactive multimedia learning



C. Finding Discussion

The Data Process of Interactive Multimedia Development in Writing Expositional Text with the Application of Project Based Learning on Data Analysis The Defining Stage (Define)

Based on the results of student responses about interactive multimedia Lectora Inspire. So it is necessary to have learning media in the form of interactive multimedia lectora inspire to make it easier for students to understand the exposition text. Because by using interactive multimedia lectora inspire will be interesting for students because it will stimulate the audio visual of students. For the results of the teacher's response, it is necessary to implement interactive multimedia lectora inspire in exposition text learning to make students interesting in learning exposition text. Because students will be happier if there are new

innovations in the pursuit, and the learning will turn on the audio visual of students in learning.

In line with the research of Rita and Julaga Situmorang (2014) in their journal of developing interactive multimedia learning based on internet in English lessons, which says that 82% of students do not recognize interactive multimedia learning, 89% of students do not use interactive multimedia learning in the learning process, and 80% of students need learning. interactive multimedia. So it is in line with the opinion of Rita and Julaga Situmorang (2014) that it requires interactive multimedia learning with the application of project based learning.

Also commensurate with the research of Damayanti, et al (2019) in their journal "development of anecdote text module on interactive multimedia in vocations high school 1 toru which says 50% of teachers do not recognize interactive multimedia learning, 100% of teachers do not use interactive multimedia learning, and 100% teachers need interactive multimedia learning. So it is in line with the opinion of Damayanti et al (2019) that interactive multimedia learning is needed with the application of project based learning.

Data Analysis Design Stage (*Design*)

Based on the results of data analysis based on the results of a questionnaire given to colleagues consisting of one person and comments deemed appropriate to be taken into consideration for improving the quality of the product being developed.

1. Analysis of Validation Results by Peer Design Experts

The results of the analysis were seen from the predetermined aspects of the assessment. In general, from the four aspects that have been given to respondents through questionnaires, product design

development with a percentage score range of 85.55% with the criteria of Good (B).

In general, from the four aspects that have been given to respondents through questionnaires, product design development with a percentage score range of 85.55% with the criteria of Good (B).

The analysis of the results of peer assessments of the learning design aspects is: The initial design of the interactive multimedia Lectora Inspire gets a percentage of 85.7% with the criteria Good (B). Comments are given an interesting element color, the appearance of the background elements is neat, the letters used are easy to read, and do not use too many letter combinations. The content design in interactive multimedia Lectora Inspire gets a percentage of 82.1% with the criteria of Good (B). Comments given that the placement of the title, subtitles, illustrations, description of the image do not disturb, the placement of decorative illustrations as a background does not interfere. Typography in inetarktif multimedia Lectora Inspire got a percentage of 83.3% with Good criteria (B). Comments given using letters (bold, italic, comic san ms) are not excessive. And lastly, the content illustration on interactive multimedia Lectora Inspire gets a percentage of 91.6% with the criteria Very Good (SB). The comments given are able to reveal the meaning / meaning of the object.

In general, from the four aspects of the assessment given to peer respondents through a questionnaire, the design of this development product has been very good with a general average of 85.5% and the assessment criteria are Good (B).

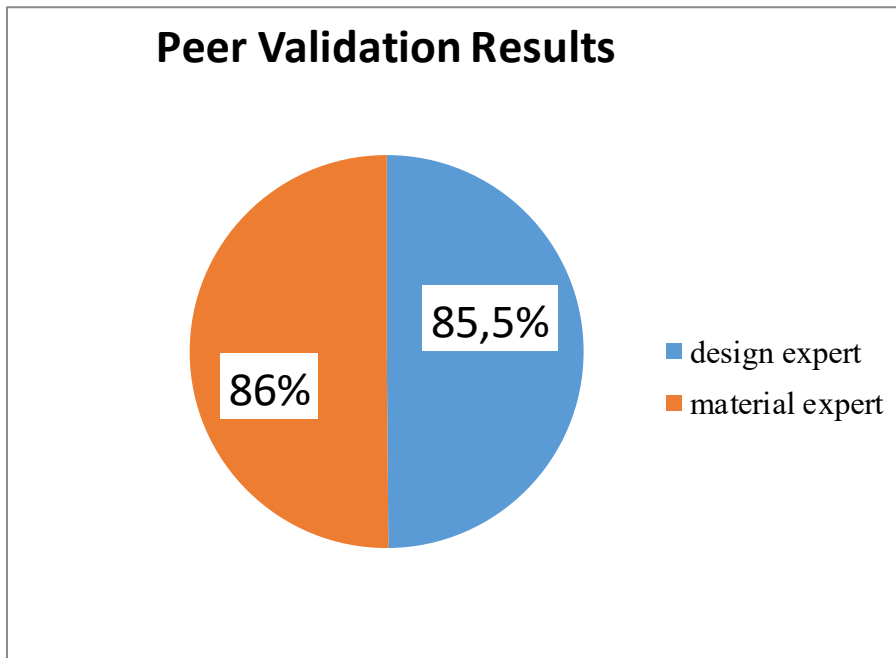
2. Analysis of Validation Results by Peer Material Experts

In addition to conducting an assessment of the learning design, an assessment is also carried out for the teaching materials used in the

development of interactive multimedia Lectora Inspire with project-based learning expectations. The assessment was given by two colleagues of Indonesian language study teachers to get the quality improvement.

From the results of giving a questionnaire to improve teaching materials given to peers, the results are as follows: Feasibility of the content includes the suitability and depth of the concept with K13, the accuracy of the material, and the learning support material gets a percentage of 86.3% and the criteria are Good (B). The feasibility of presenting learning including presentation techniques, presentation of learning, and completeness of presentation got a percentage of 85.4% and the criteria were Good (B). Interactive multimedia aspects in learning include perception (determination of media and language effectiveness, sentence determination), and strategy (determination of animation, determination of graphics, determination of images) got a percentage of 87.5% and criteria of Good (B). Assessment aspects of language in learning include communicative, conformity to the level of development of students, order and integration of thought flow, the use of terms, pictures, and symbols got a percentage of 83.3% and the criteria were Good (B). The project-based learning aspect in exposition text learning includes encouraging students, working together in groups, solving problems in the real world, getting a percentage of 87.5% and the criteria are Good (B).

In general, from the validation of media experts and assessment materials given to peer respondents through questionnaires, the design of this development product has been good with a general average of 85.5% and 86% with the assessment criteria Good (B). The teacher's comments in interactive multimedia are appropriate to be implemented in learning exposition text.



In line with Wahyuni's research, et al (2017) in their journal Development of E-Learning-Based Interactive Multimedia Modules at Principal Size and Units in SMA that peer validation needs to be done or user validation to find out the beginning of the design that will start. The results of the validation of data usage (peers), namely 3.95 and 4.38, are valid for use in learning interactive multimedia e-learning modules in the learning process.

Multiply the Data from the Validation of Interactive Multimedia in Writing Expository Text by Implementing Project Based Learning

Data Analysis Development Stage (Development)

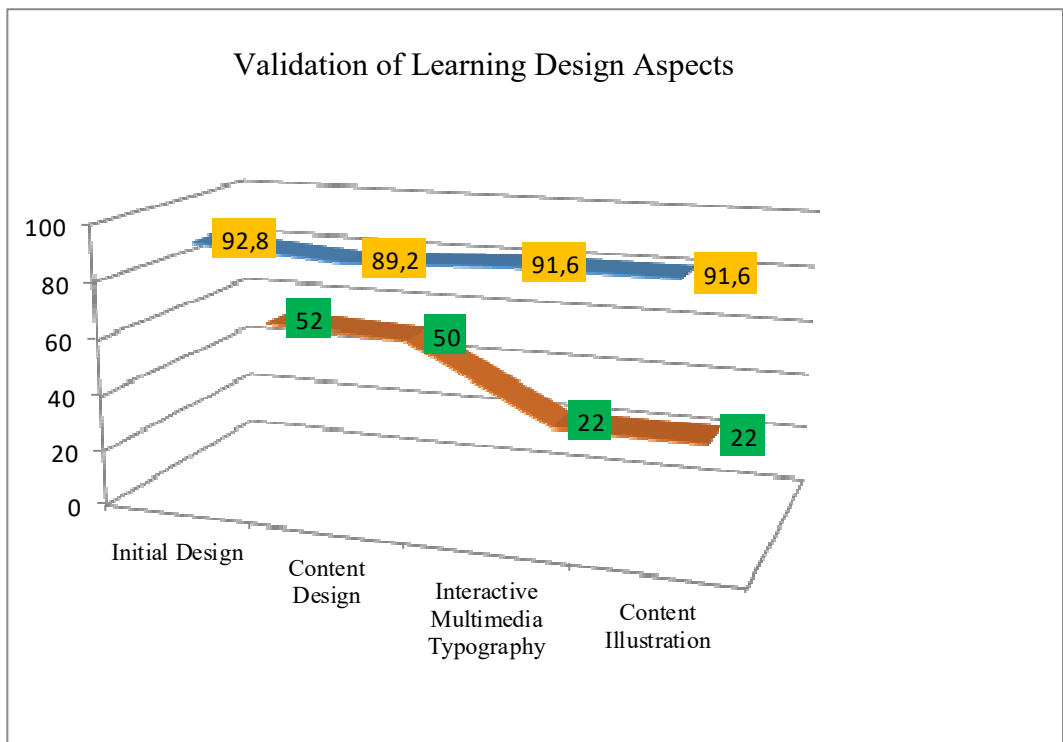
1. Analysis of Validation Results by Design Experts

Based on the results of the assessment that has been given to design experts, the next stage is to validate the development product.

This validation is carried out by design experts who are competent in their fields. The expert chosen was a French language lecturer, namely Dr. Evi Eviyanti, M.Pd and a French lecturer, Dr. Surya Masniari Hutahalung, M.Pd. The results of the design expert's validation on the aspects of the learning design.

Description of the analysis of validation experts provided by learning design experts: The initial design of the informative multimedia lectors inspire got a percentage of 92.8% with the criteria Very Good (B). Comments are given an interesting element color, the appearance of the background elements is neat, the letters used are easy to read, and do not use too many letter combinations. Content design in interactive multimedia Lectors Inspire got a percentage of 89.2% with Good criteria (B). The comments given are the placement of titles, subtitles, illustrations, captions of images that do not disturb, placement of decorative illustrations as a background does not interfere and need to add music to make it more interesting. Typography in informative multimedia Lectors Inspire gets a percentage of 91.6% with the criteria Very Good (B). Comments given use letters (bold, italic, comic sans ms) don't overdo it. Illustration of contents in informative multimedia lectors inspire got a percentage of 91.6% with very good criteria (SB). The comments given are able to reveal the meaning / meaning of the object.

In general, from the aspect of the assessment given to peer respondents through a questionnaire, the design of this development product has been very good with a general average of 91.3% and the assessment criteria are Very Good (B).



In line with Amrulloh's research (2013) in his journal "The theoretical feasibility of interactive multimedia learning media for mutation material for high school". Based on the eligibility criteria for learning design products, the score obtained in the validation of the learning design obtained an average value of 91.67, which is included in the very feasible category.

Also commensurate with the opinion of Damyanti et al (2019) in his journal development of anecdote text module on interactive multimedia in vocations high school 1 Batang Toru Based on the eligibility criteria for learning design products, the score obtained on the validation of interactive multimedia learning designs is an average of 85, 9 on good

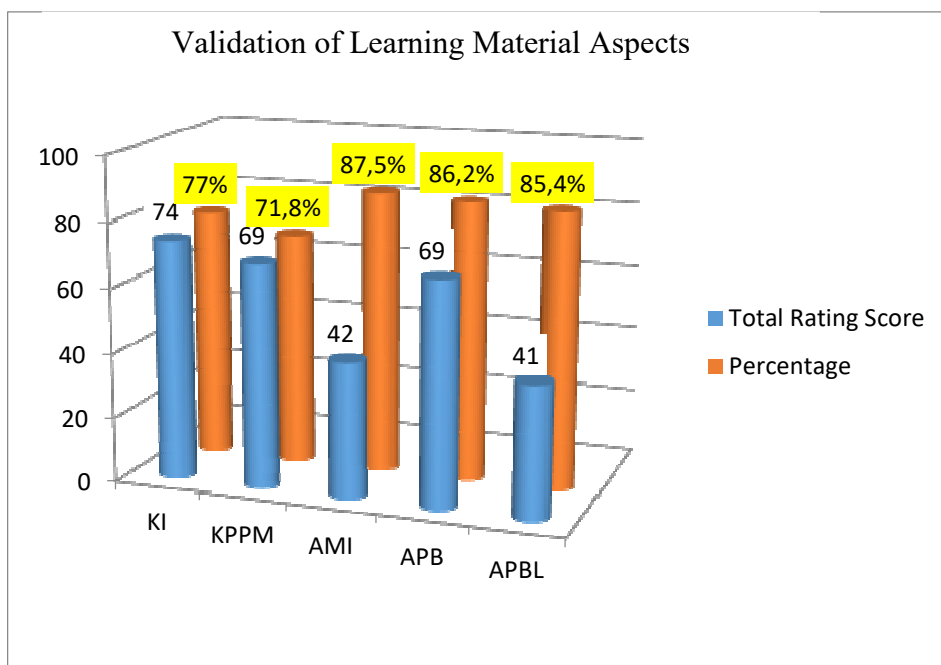
criteria (B). product criteria above an average of 80 are eligible to be tested.

2. Analysis of Results by Validation of Learning Material Experts

Validation is also given to material experts to see the feasibility of the material in accordance with the designed interactive multimedia development. This validation was carried out by a lecturer of Applied Linguistics in English, Prof. Amrin Saragih, Ph.D and Lecturer in Indonesian Language and Literature, Dr. Shafwan Hadi Umri, M.Hum. The results of material validation on aspects of teaching materials obtained: Feasibility of content which includes conformity and depth of concept with K13, material accuracy, supporting material gets a score of 74 with a percentage of 77% and good criteria (B). Presentation feasibility which includes presentation techniques, presentation of learning, and completeness of presentation gets a score of 69 with a percentage of 71.8% and the criteria are Good (B). The interactive multimedia aspect which includes media compliance, language effectiveness, graphic resolution, image resolution gets a score of 42 with a percentage of 87, 5% and good criteria (B). Aspects of language assessment include the provision of language use, stipulation of spelling, conformity with the level of student development, coherence and integration of thought flow, and the use of terms, pictures and symbols scored 69 with a percentage of 86.2% and the criteria for Good (SB). The project-based learning aspect includes encouraging students to find ideas, work together in groups, solving problems with a score of 41 with a percentage of 85.4% and the criteria for Good (B).

Based on the eligibility criteria for the learning material product above, the score obtained in the validation of the learning material obtained an average value of 81.6% on the Good criterion (B). This

criterion shows that the product of learning material in the resulting development is feasible to be tested in the learning process.



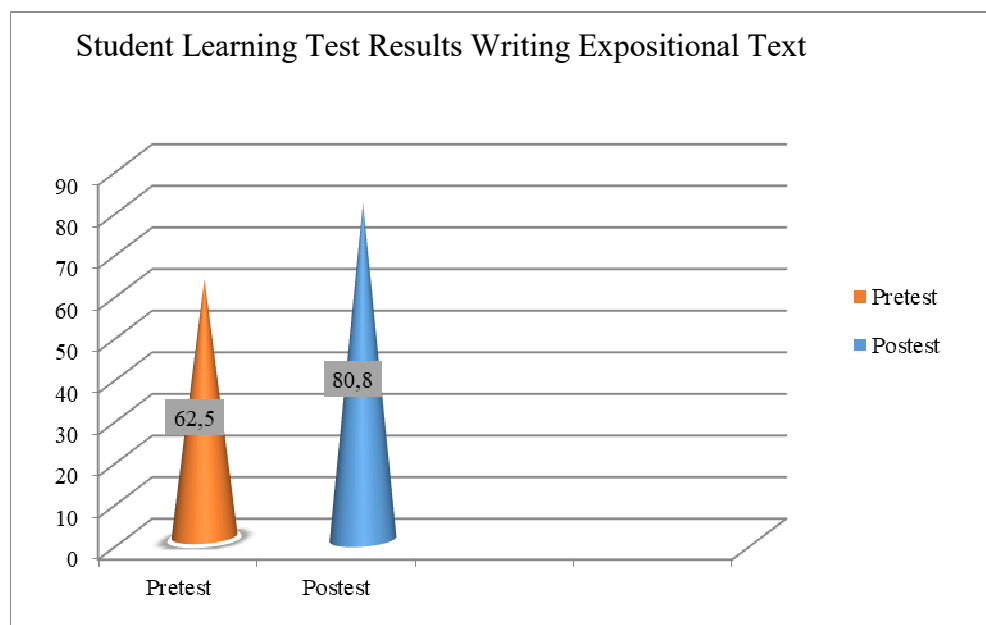
In line with Dhawira's research (2019) in his journal "The feasibility of interactive multimedia validation data result on folk poetry text learning in MTS Nurul Amaliyah Tanjung Morawa" Based on the criteria for the product of learning material, the score obtained on the validation of learning materials obtained an average value. as many as 86.40 are in the feasible category and can be tested in learning.

Overall material validation and design expert validation are feasible to be tested. The results of this study are in line with Damayanti et al (2019) in their journal "development of anecdote text module on interactive multimedia in vocations high school 1 Batang Toru"

The Effectiveness of Learning Outcomes by Applying Interactive Multimedia to Writing Expository Text with the Application of Project Based Learning

Limited Test Student Learning Test Results

The results of the pretest students before using interactive multimedia with the application of project based learning with an average of 62.6% on the "sufficient" criteria and for the students' scores after using interactive multimedia based modules with the application of project based learning was 80.8% on the "good" criteria. It can be concluded that learning using interactive multimedia with the application of project-based learning can improve student learning outcomes in Indonesian language learning, especially writing exposition text material.



In line with Arda's research (2015) in his journal "Computer-based interactive media development" and Damayanti et al (2014) in his journal "Learning to write anecdotal texts with a scientific approach with

a project-based learning model". That by using learning models and media, the students' ability to write anecdotal texts was able to increase the average score of 32.34 in the good category. In line with the opinion of Rita (2014) in her journal of developing interactive multimedia learning based on internet in English lessons. Whereas using internet-based interactive multimedia has effectiveness as much as 80.46% higher than textbooks, only getting a score below the KKM 75 of 71.72%.

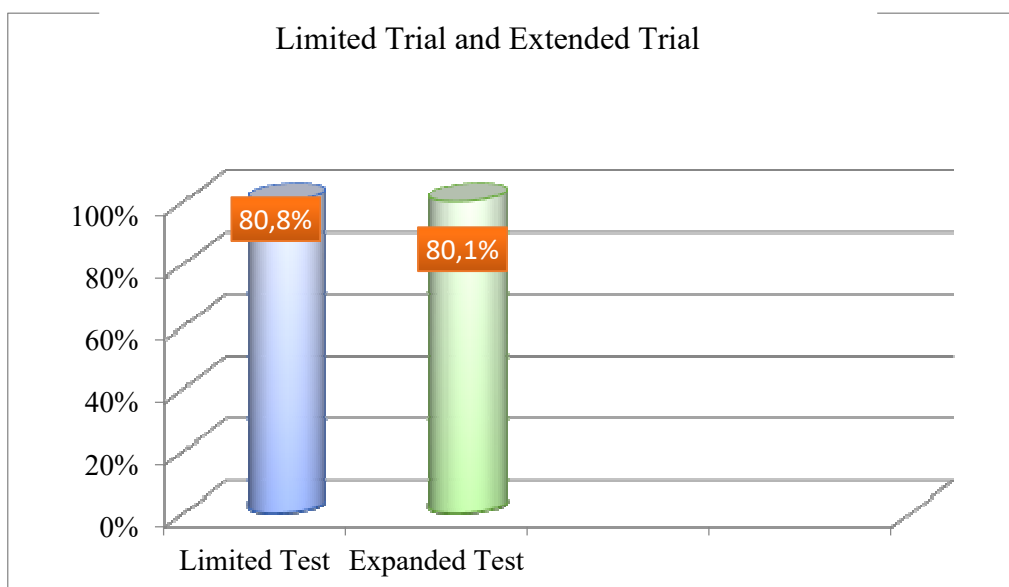
The results of the use test with a project based learning model are commensurate with Damayanti's (2014) research in his journal. Learning to write anecdotal texts with scientific approach using project based learning in class x skin beauty 1 students at SMK Ngeri 2 Singaraja. Whereas by using the project based learning model, the students' ability to work on anecdotal texts increased, from an average score of 70 with the predicate "sufficient" to increase to an average score of 80 with the predicate "good".

Limited Trial Results and Extended Trial Results (*Dissiminate*)

The effectiveness of the development product in this study was seen from the results of the distribution of the learning motivation questionnaire to the students. The trial was carried out on a limited basis by involving 30 students as respondents. The results of the limited scale analysis of the student learning motivation questionnaire by developing interactive multimedia learning obtained a score of 1924 with a maximum score of 2400, the percentage of acquisition is 80.8% and the predetermined assessment criteria are in the Good category (B). So the students' motivation in writing exposition text has an increase for limited trials

The results of the distribution of the learning motivation questionnaire to the experimental students were expanded by involving

180 students as respondents. The scale analysis was extended to the questionnaire of student learning motivation by developing interactive multimedia learning. The score was 11542 with a maximum score of 14400, the percentage of acquisition was 80.1% and the predetermined assessment criteria were in the Good category (B). So the students' motivation in writing an exposition text has increased.



It is commensurate with Siregar's research (2019) in his journal "the effectiveness of adobe flash CS5 learning media on explanatory text material in public senior high school 1 Padang bolak" in small-scale field trials; with an average score of 81.4 (good) in the students' comments written in a questionnaire as well as oral information embedded in them, the fish showed that they were very interested and motivated to learn to use interactive multimedia.

In line with Dhawira's (2019) research "The feasibility of interactive multimedia validation data result on folk poetry text learning in MTS Nurul Amaliyah Tanjung Morawa" in large-scale field trials with an

average score of 80.4 (good) in written student comments. in the questionnaire and oral information presented, it shows that they are very interested and motivated to learn to use informative multimedia.

In line with Damayanti (2019) in her journal "development of anecdote text module on interactive multimedia in vocations high school 1 Batang Toru" in the field trial was expanded with an average of 80.60% student enthusiasts increasing using inetarkive multimedia using a questionnaire given by researchers.

E. Conclusion

Based on the description of the research results, it can be concluded that related to interactive multimedia-based development of writing exposition text with the application of project based learning for MTsN 1 Medan Model students, conclusions are obtained based on problem formulation, research objectives, results, and discussion, can be described as follows:

1. The results of the analysis of the needs of teachers and students require interactive multimedia writing exposition text with the application of project based learning in the learning process, designing interactive multimedia in the exposition text, and finally the design expert peer assessment with an average score of 85% and material experts with an average score of 86. %.
2. Media feasibility got an average score of 91.3% with the criteria "very good" and 81.6% with the criteria "very good" in the development of interactive multimedia writing exposition text with the application of project based learning.
3. The effectiveness of the student learning outcomes test got an average score of 80.8% with the "good" criteria before using the

interactive multimedia-based learning module with an average score of 62.5% with the "sufficient" criteria.

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