ENHANCING PROCEDURAL TEXT LEARNING: A STUDY ON ELECTRONIC TEACHING MATERIALS FOR MIDDLE SCHOOL STUDENTS

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Abstract
This research investigates the feasibility and effectiveness of innovative electronic teaching materials designed for teaching procedural texts to Phase D learners at SMP Negeri 1 Percut Sei Tuan. Utilizing a Research and Development (R&D) approach, this study incorporates the ADDIE model for systematic development and evaluation. The materials developed were assessed by material and media experts, with a sample group comprising 26 seventh-grade students from class VII-1. The evaluation by material experts resulted in a high feasibility score of 93%, while media experts provided an approval rating of 86%, indicating strong validation from both perspectives. The educational effectiveness of these materials was further tested through a practical classroom application, where students' performance was measured using pretest and posttest scores. Initially, students scored an average of 70 in the pretest. After the implementation of the electronic materials, the average posttest score rose significantly to 87. These results suggest that the electronic teaching materials for procedural texts are not only highly feasible according to expert validators but also effectively enhance learning outcomes among seventh graders at SMP Negeri 1 Percut Sei Tuan. Consequently, these materials are recommended for use as supplementary teaching resources in the Indonesian language curriculum, particularly beneficial for Phase D learners. The study confirms the potential of integrating innovative electronic materials into traditional educational settings to improve understanding and engagement among students.
Key words: Teaching Materials, Book Creator, Procedure Texts

Abstrak
Penelitian ini menyelidiki kelayakan dan efektivitas bahan ajar elektronik inovatif yang dirancang untuk mengajarkan teks prosedur kepada peserta didik Tahap D di SMP Negeri 1 Percut Sei Tuan. Dengan menggunakan pendekatan Penelitian dan Pengembangan (R&D), penelitian ini menggabungkan model ADDIE untuk pengembangan dan evaluasi sistematis. Materi yang dikembangkan dinilai oleh ahli materi dan media, dengan kelompok sampel berjumlah 26 siswa kelas VII kelas VII-1. Evaluasi yang dilakukan oleh ahli materi menghasilkan skor kelayakan yang tinggi yaitu sebesar 93%, sedangkan ahli media memberikan nilai persetujuan sebesar 86% yang menunjukkan validasi yang kuat dari kedua perspektif. Efektivitas pendidikan dari materi-materi ini diuji lebih lanjut melalui penerapan praktik di kelas, di mana kinerja siswa diukur menggunakan skor pretest dan posttest. Awalnya, siswa mendapat nilai rata-rata 70 pada pretest. Setelah penerapan materi elektronik, rata-rata nilai posttest meningkat secara signifikan menjadi 87. Hasil tersebut menunjukkan bahwa bahan ajar elektronik teks prosedur selain sangat layak

menurut validator ahli, juga efektif meningkatkan hasil belajar siswa kelas VII SMP Negeri 1. Percut Sei Tuan. Oleh karena itu, materi-materi ini direkomendasikan untuk digunakan sebagai sumber pengajaran tambahan dalam kurikulum bahasa Indonesia, khususnya bermanfaat bagi pembelajar Tahap D. Studi ini menegaskan potensi mengintegrasikan materi elektronik inovatif ke dalam lingkungan pendidikan tradisional untuk meningkatkan pemahaman dan keterlibatan di kalangan siswa.
Kata kunci : *Bahan Ajar, Pencipta Buku, Teks Prosedur*

INTRODUCTION

Teaching material is a collection of materials arranged in a structured manner, which describes the complete competencies that students will master during the teaching and learning process. Teaching materials include all types of materials used to support teachers in the implementation of teaching and learning activities. As an important element in learning, teaching materials must also meet quality standards in terms of content, language, and presentation. Teaching materials can be in the form of written materials (in printed form or non-written materials (Majid, 2014).

According to BNSP (National Education Standards Agency), explains that the components of the feasibility assessment of this teaching material itself consist of; (1) content feasibility, (2) presentation feasibility, (3) language feasibility, and (4) graphic feasibility (BSNP, 2014). According to Sudjana (1990) explains that effectiveness is an act of student success to achieve certain goals that can bring maximum learning outcomes. Meanwhile, according to Mulyasa (2011) effectiveness is how an organization succeeds in obtaining and utilizing data sources in an effort to realize operational goals. So it can be said that the effectiveness of teaching materials is the extent to which a teaching material achieves the planned learning objectives. In addition, effective teaching materials are not only seen from the evaluation results achieved by students, but also able to provide good understanding, perseverance, and a sense of pleasure when learning. The criteria for the effectiveness of teaching materials according to (Oriana, 2020: 30) refer to: (1) learning is considered successful if at least 75% of all learners achieve a score of 60 or above in improved learning outcomes. (2) the learning model is considered effective when there is a significant difference in learners' understanding between before and after learning, (3) its effectiveness is proven by its ability to increase learners' interest and motivation to achieve better learning outcomes, while making the learning process fun for students.

Learning in schools requires the use of innovative teaching materials so that students remain interested and can follow learning effectively. This teaching material is structured material, including information, tools, and text, which is designed to develop student competencies and contains an explanation of the application of learning. Examples are textbooks, modules, handouts, student worksheets (LKS), interactive teaching materials, audio materials, and the like (Prastowo, 2014). Electronic teaching materials include electronic books, learning videos, or learning applications that can be accessed through electronic devices such as laptops, tablets, or gadgets and others. In terms of format, electronic teaching materials fall into the category of multimedia interactive teaching materials, which combine text, images, animations, and require interaction from users. (Jazuli et al., 2017).

Multimedia refers to a combination of several types of media such as video, audio, images, animation, and other graphics. The use of multimedia helps students visualize abstract material. The utilization of multimedia in learning can increase student motivation and

encourage active learning. (Muller et al., 2008). Multimedia refers to media that is able to present various media elements such as sound, animation, video, graphics, and movies simultaneously. The term multimedia is often associated with computer technology, the internet, and computer-based learning. (Abdillah, 2010: 319).

Based on the results of observations made by researchers at SMP Negeri 1 Percut Sei Tuan, it states that the learning of procedural texts still has several problems. The problems are, (1) in Indonesian language lessons, learning about procedural texts has never involved additional teaching materials, but only relies on student printed books that have been provided by the Ministry of Education and Culture; (2) learning procedural texts in Indonesian language subjects still faces significant obstacles, which can be seen from the lack of interest and motivation of students, boredom, and enthusiasm for learning concepts that only depend on student printed books. As a result, the classroom atmosphere became less conducive when researchers observed the learning process of procedure text; (3) the development of innovative electronic teaching materials on procedure text material has never been done at SMP Negeri 1 Percut Sei Tuan.

Teachers said that the teaching materials used need new innovations and are made based on student interests. Based on the criteria for good teaching materials, teaching materials are assembled based on student learning interests. This is in line with the opinion of Djamarah (2011) which states that interest greatly affects students' academic achievement because a child who studies without interest in a subject he does not like will have little hope for his future learning. Then Slameto (2010) also argues that interest has a big influence on learning, because if the lesson is not personally interesting to the student, he will not learn optimally or not as well as possible. Therefore, the role of interest is very important in influencing learning outcomes, where excitement is always accompanied by feelings of pleasure and appreciation to achieve satisfaction in learning.

Based on previous research, it can be emphasized that the use of electronic teaching materials can improve students' abilities and skills. This is in line with research (Erdiana, Manihar, and Ramlan, 2015) where the results of the study revealed that students' opinions on the quality of innovative and interactive teaching materials developed were 3.49 with the kirteria "very valid". In that sense, the teaching materials developed are suitable for use in the learning process. The conclusion that can be drawn above is that the development of innovative teaching materials is feasible. This research has similarities with what the author did, namely developing innovative teaching materials. While the difference lies in previous research using printed teaching materials while researchers use electronic teaching materials based on book creators.

Furthermore, research Ahadiat et al (2023) where the results of the study state that the learning media used in electronic modules, namely SAC (Smart Apps Creator) is effectively used in learning literature. In his research, the media obtained an average score percentage of 83% from students. The researcher also tested the learning media in two different schools and obtained a good average score. This proves that the media developed is effective and improves student learning outcomes in literature learning. The conclusion that can be drawn is that the development of teaching materials needs to be done to improve student learning outcomes. This study has similarities with previous researchers, namely looking at the effectiveness of teaching materials developed, whether they have an effect on student learning before and after using electronic teaching materials. The difference that lies in previous research is that previous researchers conducted research in two schools,

while researchers conducted research in only one school.

In research Wijaya & Vidianti (2019) the results of the study explained that students gave positive responses to the E-Module because it was considered more interesting, with multimedia elements that increased the attractiveness of learning. After going through the validation process, the conclusion can be drawn that the interactive electronic module has a very good level of feasibility and is effective for use. . After passing through the validation stages, it can be concluded that the interactive electronic module teaching material has a very good level of feasibility and is effective to implement. The conclusion that can be drawn is that the development of teaching materials does not focus on developing the material alone, but we can add other elements in teaching materials, such as images, audio, and even video. This is done, so that teaching materials become varied and increase student interest and motivation to learn. The similarities between previous research and this study are that things are developed in research in the form of electronic teaching material products for learning. While the difference between previous research and this study is that previous research developed materials to test their effectiveness with students and researchers tested the effectiveness of teaching materials on phase D students.

The novelty in this research is that the electronic teaching materials developed accommodate 3 student learning styles, namely VAK (visual, audio, and kinesthetic). By making updates, such as including visual content (animated images) which are used so that teaching materials do not focus on text material alone. Audio content, where on each page of teaching materials, there is audio that can be listened to by students, the audio contains an explanation of the material on each page, this is done so that students who lack interest in reading, can listen to the material by simply pressing the audio menu on the teaching material page. Kinesthetic content, where at the end of the teaching material page, there is kinesthetic content, this is in the form of an invitation to students, to learn directly (practice), so that students can explore learning materials with subject teachers. This electronic teaching material is made with the help of web book creator.

Based on the problem identification above, the problem formulation in the study is "How is the effectiveness of innovative electronic teaching materials for procedure text assisted by book creator in phase D at SMP Negeri 1 Percut Sei Tuan?". In accordance with the formulation of the problem, the objectives in this study are "To find out how the effectiveness of innovative electronic teaching materials for procedure texts assisted by book creator in phase D at SMP Negeri 1 Percut Sei Tuan".

In this study, researchers used Book Creator web-assisted electronic teaching materials. Where this electronic teaching material accommodates 3 student learning styles, according to the learning needs of the current independent curriculum. So this will make it easier for VII grade students at SMP Negeri 1 Percut Sei Tuan in learning procedural texts, because students can read while listening to the material on electronic teaching materials. The focus of this research lies on assessing the effectiveness of validators, teachers and students on electronic teaching materials assisted by book creators of procedural texts, especially for VII grade students at SMP Negeri 1 Percut Sei Tuan.

METHOD OF RESEARCH

Research Design

Researchers used the R&D method with the aim of creating an innovative electronic teaching material product of procedure text which was then reviewed for its effectiveness in learning. The development model used in this research is the ADDIE development model developed by William Lee (2004). The ADDIE

development model is suitable for developing web-based learning media or software, as the development stages are systematically organized and easy to understand. This model consists of five stages, namely 1) analysis, 2) design, 3) development, 4) implementation, and 5) evaluation.

The ADDIE model was used to create an electronic teaching material product using Web Book Creator that accommodates three learning styles, namely visual, audio, and kinesthetic, for VII grade students of SMP Negeri 1 Percut Sei Tuan. This research was conducted in class VII-1 with steps carried out sequentially, starting from analysis to evaluation. The results of product development will be validated by experts, including material experts and media experts who are lecturers from Medan State University.

Data Collection Techniques

The data collection techniques used in this study are as follows:

1) Structured Observation

Structured observation involves systematic observation of variables that have been previously identified. Researchers use checklists or observation tools to record and measure observed behaviors, interactions, or phenomena. The purpose of structured observation is to collect data in the form of numbers that can be analyzed statistically.

2) Questionnaire

Questionnaire is a data collection method that involves questions that have been structured. Respondents are asked to provide responses that can be measured through the answer choices provided or by filling in blank boxes. The use of questionnaires or questionnaires aims to collect data from a large number of samples in quantitative research (Ardiansyah et al., 2023).

Research Instruments

Data collection in this study using a questionnaire. According to Sugiyono (2018), a questionnaire is a data collection technique that involves delivering a number of questions to respondents, either orally or in writing, to be answered. In this study using several instruments, including: needs analysis questionnaires (students and teachers), validation instruments for material experts, validation instruments for media experts, pre-test and post-test instruments, and response questionnaires (teachers and students). Instruments for material experts, and media experts in the form of questionnaires made in the form of a Likert scale. Pre-test and post-test instruments are made in the form of tests. The instrument grid is used to provide a design in accordance with the components to be evaluated. Then design the test items that will be used to measure the cognitive domain of students, namely by giving assignments to students.

Data Analysis Technique

In this development, the data analysis technique involves a description of all opinions, suggestions, and responses obtained from the comment sheet. At the trial stage, data will be collected through an assessment questionnaire to obtain criticism, suggestions, input, and improvements. The results of this analysis, which are in the form of quantitative descriptions, are used to assess the level of accuracy, effectiveness, and attractiveness of the development product, namely learning media. This data is collected through the validation of material experts and learning design experts, teacher validation, small and large group trials which are then made in the form of a Likert scale.

DISCUSSION / RESEARCH FINDING

After making electronic teaching materials for procedure texts assisted by book

creator. The next stage, researchers carried out several procedures, including; (1) validating teaching material products with 2 material expert validators and 2 media expert validators, (2) providing questionnaires for responses to teaching material products to students and teachers, (3) conducting small group pre-test and post-test trials with 5 students and large group pre-test and post-test trials involving 26 students, and (4) conducting effectiveness tests on electronic teaching materials for procedure texts.

Expert Validation

Validation is carried out to find out whether electronic teaching material products are feasible or not feasible to use in learning Indonesian Language phase D Procedure Text material. Validation by experts is a process in which teaching material products are tested and revised to make them suitable for use in schools. The product validation process involves practitioners who have expertise and experience in accordance with the relevant fields in the teaching materials. Validation by experts also aims to get recognition and approval of the teaching materials. Validation by experts consists of two parts, namely material expert validation and media expert validation. Assessment validation was given to 4 experts, including 2 material experts and 2 media experts who are lecturers at the Unimed Postgraduate Program. The following are the results of product validation of electronic teaching materials for procedure texts.

Material Expert and Media Expert Validators

In the validation process, the final results obtained from the material expert by validator 1 obtained a score of 136 out of a maximum score of 140 with 28 indicators. So, if the percentage is calculated, the teaching material developed gets a score of 97% in the "very good" category. Then, the score from validator 2 is 123 out of 140 as the maximum score with 28 indicators. If percented, eating gets a value of 88% in the "very good" category. Therefore, it can be concluded that the material developed in the electronic teaching materials for procedural texts in phase D is suitable for use in the learning process.

Furthermore, media expert validation. The final results obtained from media experts by validator 1 obtained a score of 120 from a maximum score of 135 with 27 indicators. If the percentage is calculated, it gets a value of 89% in the "very good" category. Then the final score obtained from validator 2, namely 113 out of 135 with 27 indicators. The percentage obtained in validator 2 was 84% with a very good category. It can be concluded that the media used in teaching materials are suitable for use in learning. Based on the validation assessment by material experts and media experts, the following is a recapitulation of the assessment results from expert validators:

Table 1. Recapitulation of Material Expert and Media Expert Validation Hail

No	Validator	Sum of Final Scores	Percentage	Criteria
1.	Material Validator 1	136	97%	Very Good
2.	Material Validator 2	123	88%	Very Good
3.	Media Validator 1	120	89%	Very Good

4.	Media Validator 2	113	84%	Very Good
Total		**492**	**89,5%**	**Sangat Baik**

In table 1, it can be seen that the average score of 4 expert validators is 492 with a percentage of 89.5%, and is classified as "very good". Therefore, it can be concluded that the innovative electronic teaching materials developed are suitable for use in learning phase D procedure texts at SMP Negeri 1 Percut Sei Tuan.

Product Response Questionnaire by Students (Small Group)

The small group trial aims to evaluate the feasibility of the product. Students in this small group trial reviewed the material provided, and in the small group trial, researchers involved 5 students. The small group trial was conducted at SMP Negeri 1 Percut Sei Tuan class VII-1. The method used was to provide a questionnaire to collect student responses to the suitability of the subject matter. The results of the small group trial obtained a final score of 241 out of a maximum score of 300 with 12 indicators whose questionnaires were given to 5 students in class VII-1. If the percentage is calculated, it gets a value of 80% with "good" criteria. This indicates that the teaching materials developed by the researcher meet good standards to be used as an addition in the learning process of procedural texts for phase D (grade VII).

Product Response Questionnaire by Students (Large Group)

The large group trial was conducted to validate the data and determine the feasibility of the product more generally. The participants in this large group trial consisted of 26 students from phase D (class VII-1) at SMP Negeri 1 Percut Sei Tuan. The method used was to provide a questionnaire to collect student responses to the suitability of the subject matter. The results of the reaccumulation of the product response questionnaire by students (large group). Based on the table above, it can be seen that the results of the large group trial obtained a final score of 1398 from a maximum score of 1560 with 12 indicators whose questionnaires were given to 26 students in class VII-1. If the percentage is calculated, it gets a value of 90% with "very good" criteria. This indicates that the teaching materials developed by researchers meet very good criteria and can be used as additional teaching materials in the learning process, especially in procedure text material for phase D classes (grade VII).

Teacher Response Questionnaire

This trial was conducted to verify the data and assess the feasibility of the product more broadly. The method used was to provide questionnaires to teachers to evaluate the feasibility of teaching materials. The results of the teacher response questionnaire can be seen in the following table:

Table 2. Recapitulation of Teacher Response Questionnaire Results

No	Assessment Aspect	Score	Percentage
1.	Display	5	100%
2.		5	100%

3.		5	100%
4.		5	100%
5.	Material	5	100%
6.		4	80%
7.		5	100%
8.	Presentation	4	80%
9.		5	100%
10.		5	100%
11.		4	80%
12.		4	80%
13.		4	80%
14.		4	80%
15.		5	100%
16.	Language	5	100%
17.		4	80%
18.		4	80%
19.	Media	4	80%
20.		4	80%
21.		5	100%
22.		4	80%
Average Number		**99**	**90%**

Based on this table, the results of the trial with the teacher get a score of 99 out of a maximum score of 110 with 22 indicators. If the percentage is calculated, it gets a value of 90% with "very good" criteria. This indicates that the teaching materials developed by researchers are feasible and suitable for use as additional teaching materials in learning set material for phase D (grade VII).

Small Group Trial (Pre-Test and Post-Test)

The small group trial was applied to five students from phase D (class VII-1) at SMP Negeri 1 Percut Sei Tuan. The

following is a table of the results of the effectiveness test of teaching materials in small groups.

Table 3. Small Group Trial Scores (Pre-Test and Post-Test)

No	Responden	Pretest	Postest
1	R.1	66	82
2	R.2	72	86
3	R.3	77	87
4	R.4	66	83
5	R.5	80	90
Jumlah		**361**	**428**
Rata-Rata		**72,2**	**85,6**
Median		**72**	**86**
Modus		**66**	**-**

From the results of the pretest and posttest small group trial scores, it can be seen that the average pretest score was 72.2 in the "Good Enough" category, meaning that the scores achieved by students need to be improved again, while the results of the postest were 85.6 in the "Good" category. So with a value difference of 13.4, it can be concluded that the value of students has increased after using electronic teaching materials developed by researchers. This states that the teaching materials developed were successful in improving students' understanding of procedural text material.

Large Group Trial (Pre-Test and Post-Test)

The large group trial was applied to 26 students from phase D (class VII-1) at SMP Negeri 1 Percut Sei Tuan. The following is a table of the results of the effectiveness test of teaching materials in large groups.

Table 4. Large Group Trial Scores (Pre-Test and Post-Test)

No	Respondent	Pretest	Postest
1	R.1	70	90
2	R.2	78	92
3	R.3	67	82
4	R.4	75	93
5	R.5	68	86

6	R.6	77	92
7	R.7	65	82
8	R.8	73	92
9	R.9	68	84
10	R.10	76	90
11	R.11	68	82
12	R.12	68	86
13	R.13	66	83
14	R.14	75	90
15	R.15	65	83
16	R.16	76	90
17	R.17	69	88
18	R.18	77	93
19	R.19	68	82
20	R.20	75	90
21	R.21	73	90
22	R.22	70	90
23	R.23	66	83
24	R.24	69	84
25	R.25	65	86
26	R.26	64	82
Total		**1831**	**2265**
Average		**70**	**87**
Median		**69**	**87**
Mode		**68**	**90**

From the results of the pretest and posttest large group trial scores, the average pretest score was 70 in the "good enough" category, meaning that the scores achieved by students need to be improved again, while the results of the posttest were 87 in the "good" category. With a value difference of 17, it can be concluded that the value of students has increased after learning by using electronic teaching materials developed by researchers. In improving students' understanding of procedural text material, the electronic teaching materials used are classified as successful.

Evaluation

In the final stage, researchers conducted an effectiveness test to see whether the teaching materials developed were effective or not used as additional teaching materials in learning procedure texts. The effectiveness test used by researchers, namely, the Normalize Gain (N-Gain) test is used to assess how effective the use of innovative electronic teaching materials for procedure texts assisted by book creators. The calculation of the N-Gain Score is done by means of the posttest score - pretest score then divided by the ideal score - pretest score and for the N-Gain Score (%), then the calculation of the N-Gain Score (%).

(%), then the calculation of N-Gain Score × 100%. This calculation is carried out on all students involved, and then the final results of the summation are totaled so that it can be seen the effectiveness of the teaching materials. The results of the N-Gain calculation can be seen in the following table.

Table 5. N-Gain Score Test

Perhitungan *N-Gain Score*			
No	**Respondent**	***N-Gain Score***	***N-Gain Score* (%)**
1	R.1	0,66	66
2	R.2	0,63	63
3	R.3	0,45	45
4	R.4	0,72	72
5	R.5	0,56	56
6	R.6	0,65	65
7	R.7	0,48	48
8	R.8	0,70	70
9	R.9	0,5	50
10	R.10	0,58	58
11	R.1	0,43	43
12	R.12	0,56	56
13	R.13	0,5	50
14	R.14	0,6	60
15	R.15	0,51	51
16	R.16	0,58	58
17	R.17	0,61	61
18	R.18	0,69	69
19	R.19	0,43	43
20	R.20	0,6	60
21	R.21	0,62	62
22	R.22	0,66	66
23	R.23	0,5	50
24	R.24	0,48	48
25	R.25	0,6	60
26	R.26	0,5	50
	Mean	0,57	57

Table 6. N-Gain Interpretation Category Table (Hake, 1999)

N-Gain Effectiveness Interpretation Category	
Percentage(%)	**Interpretation**
<40	Not Effective
40-55	Less Effective
56-75	Moderately Effective
>76	Effective

It can be seen from the results of the N-Gain Score test calculation, obtaining a mean of 0.57. If the percentage is calculated, it gets a value of 57% with the interpretation of "quite effective". Therefore, by referring to the standard interpretation of N-Gain effectiveness (%) as listed in the previous table, the N-Gain test results show a sufficient effectiveness category, with a mean percentage of 57%. This is in accordance with the predetermined interpretation standards, where the value is within the mean range of 56-75%. This also indicates that the use of innovative electronic teaching materials assisted by book creator is quite effective in improving students' understanding in learning procedure text in phase D at SMP Negeri 1 Percut Sei Tuan.

Discussion

Researchers conducted learning using electronic teaching materials for two meetings. In the large group trial, researchers involved 26 students of class VII-1 at SMP Negeri 1 Percut Sei Tuan. The final results of teaching material responses from students and teachers received an average percentage of 90% with the criteria "Very Good". Then the researcher conducted a large group trial test to students (pretest and posttest), namely writing procedure text with the theme "Drink". Researchers found the final score of students with an average, 70 on the pretest and 87 on the posttest. Therefore, it can be concluded that the innovative electronic teaching materials for procedure texts assisted by book creators developed by researchers are very feasible to use, because students experience an increase in grades in writing procedure texts.

This is in line with the research of Putri & Widyaningsih (2021). The study used the ADDIE stage, which at the implementation stage, obtained the results of student responses (large group test - posttest) to the teaching materials developed with an average percentage score of 99.37%. Student scores also increased, before using the developed teaching materials, the average student score was 51.71 (pretest) and after using the developed teaching materials the average student score was 84.21 (posttest).

The differences in research conducted by researchers and previous research include, (1) researchers develop innovative electronic teaching materials that accommodate three learning styles (audio, visual, and kinesthetic). In previous studies developed thinglink-based interactive teaching materials, (2) researchers only involved 26

students in large group trials, while previous studies involved 32 students in large group trials.

The feasibility and effectiveness of teaching materials are evaluated based on the results of material expert validators and media experts. The assessment results show that the average percentage of material feasibility is 93%, while the average percentage of media feasibility is 86%. Meanwhile, the assessment of respondents (teachers and students) regarding the development of teaching materials obtained an average percentage of 90% by teachers, 80% in the small group test, and 90% in the large group trial.

Then, researchers conducted an effectiveness test using the N-Gain Score test. The final results show that the teaching materials developed by researchers are effective and feasible to use as additional teaching materials on procedural text learning materials. Researchers found the results of the N-Gain Score test where the mean was 57 with the interpretation of "quite effective". Learners also experienced an increase in the average scores of pretest and posttest, with an average pretest score of 70 and an average postest score of 87. In conclusion, the evaluation results show that the teaching materials developed are very good and feasible to use, especially for phase D (class VII) at SMP Negeri 1 Percut Sei Tuan.

This is in line with the research of Sitanggang et al (2023). At the evaluation stage (effectiveness test), the final result of this study was that student learning completeness increased after using the developed teaching materials, with an achievement of 85.13%. So it can be concluded that the product or teaching material developed was effective in improving the ability to write procedural texts for grade VII students at SMP Negeri 3 Muara Siatas Barita.

The differences in this study and previous research include, (1) this study used the N-Gain test to see the effectiveness of the teaching material products developed, while the previous study used a t-test with The Test for Paired Differences type, (2) this study only conducted small group and large group trials, while the previous study conducted individual, small group, and large group trials, and (3) this study used an interpretation category table to explain the results of the N-Gain test, while the previous study used a hypothesis to explain the results of the effectiveness test.

CONCLUTION

Based on the findings and analysis in the effectiveness study of innovative electronic teaching materials for procedure texts assisted by book creator in phase D of the independent curriculum at SMP Negeri 1 Percut Sei Tuan, the conclusions are, (1) the success and feasibility of the product development of innovative electronic teaching materials for procedure texts assisted by book creator is assessed in the "very good" category and is suitable for use. According to the assessment of material experts and media experts, the product obtained an assessment with an average percentage of 93% from material experts and 86% from media experts. Responses from teachers also showed an assessment in the "very good" category with a percentage of 90%. In addition, the results of the trial on students in class VII-1 showed an average score of 80%, with a category of "very good", (2) the effectiveness test of using the product developed in procedure text material to students has proven effective, with the average pretest result of 70 and postest of 87. This states that the effectiveness test of using the product in procedure text material to

students shows a significant increase from pretest to postest, indicating that the product is effective in increasing students' understanding of the material taught.

REFERENCES

Ahadiat, E., Kartika, D., Nelfi, E., Sri Hartati, Y., & Yuhendra. (2023). Development of Android-Based Literature Writing e-Module: Smart Apps Creator for Students in Padang Senior High School. *Journal of Teaching and Learning*, *8*(2), 117–129. https://doi.org/10.22216/jcc.2023.v8i2.2266

Ardiansyah, Risnita, & Jailani, M. S. (2023). Teknik Pengumpulan Data Dan Instrumen Penelitian Ilmiah Pendidikan Pada Pendekatan Kualitatif dan Kuantitatif. *Jurnal IHSAN : Jurnal Pendidikan Islam*, *1*(2), 1–9. https://doi.org/10.61104/ihsan.v1i2.57

BSNP. (2014). *Revisi Peraturan Kriteria Kelayakan Buku Teks Pelajaran*. Jakarta : Badan Standar Nasional Pendidikan.

Djamarah, S. B. (2011). *Psikologi Belajar*. Jakarta : Rineka Cipta.

Hake, R. R. (1999). *Analyzing Change/Gain Scores. AREA-D American Education Research Association's Devision.D, Measurement and Reasearch Methodology*. Woodland Hills : Indiana University.

Jazuli, M., Azizah, L. F., & Meita, N. M. (2017). Pengembangan Bahan Ajar Elektronik Berbasis Android Sebagai Media Interaktif. *LENSA (Lentera Sains): Jurnal Pendidikan IPA*, *7*(2), 47–65.

Majid, A. (2014). *Pembelajaran Tematik Terpadu*. Bandung : Remaja Rosdakarya.

Muller, D. A., Lee, K. J., & Sharma, M. D. (2008). Coherence Or Interest: Which Is Most Important In Online Multimedia Learning? *Australasian Journal of Educational Technology*, *24*(2), 211–221.

Mulyasa, E. (2011). *Manajemen Berbasis Sekolah : Konsep, Strategi Dan Implementasi*. Bandung : Remaja Rosdakarya.

Prastowo, A. (2014). *Pengembangan Bahan Ajar Tematik*. Jakarta : Kencana.

Putri, N. D. A., & Widyaningsih, N. (2021). Pengembangan Bahan Ajar Interaktif Berbasis Thinglink Dalam Pembelajaran Teks Prosedur Kelas VII SMP Negeri 1 Kretek Tahun Ajaran 2021/2022. *Jurnal Skripta*, *7*(2), 20–30. https://doi.org/10.31316/skripta.v7i2.2255

Sitanggang, E. H., Hasratuddin, H., & Juhana, J. (2023). Pengembangan Bahan Ajar Berbasis Model Pembelajaran Project Based Learning Untuk Meningkatkan Keterampilan Menulis Teks Prosedur. *Jurnal Ilmiah Profesi Pendidikan*, *8*(3), 1534–1539. https://doi.org/10.29303/jipp.v8i3.1546

Slameto. (2010). *Belajar Dan Faktor- Faktor Yang Mempengaruhinya*. Jakarta : Rineka Cipta.

Sudjana, N. (1990). *Teori-Teori Belajar Untuk Pengajaran*. Jakarta : UI-Pres.

Sugiyono. (2018). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung : Alfabeta.

Wijaya, J. E., & Vidianti, A. (2019). Pengembangan Bahan Ajar Modul Elektronik Interaktif Pada Mata Kuliah Inovasi Pendidikan Program Studi Teknologi Pendidikan Universitas Baturaja. *Jurnal Pendidikan Glasser*, *3*(2), 142. https://doi.org/10.32529/glasser.v3i2.334