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Development of Canva-Based Digital Comic Media in Indonesian Language Lesson Material Sources of Energy

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Abstract

This study aims to develop an innovation in interesting, varied and innovative learning media using the Canva application as well as to test the feasibility and validity of the developed media, namely Canva-based digital comic media in Indonesian language lesson content on energy source materials . This type of research is a research and development research with the research subjects of class III students at SDN Kawungluwuk Kab. Cianjur. Data collection in this study used the methods of observation, interviews and documentation. The data were analyzed using quantitative and qualitative descriptive analysis. The procedure and stages of development on Canva-based digital comic media use the ADDIE model which has five stages, namely analysis, design, development, implementation, and evaluation. The quantitative and qualitative development of digital comics based on Canva is appropriate for use in learning. The results of the validation assessment were processed twice because of revisions to produce the best product. The results of the 1st media expert validator got 91% and the 2nd got 92%, the 1st linguistic validator got 64% and the 2nd got 100%, the 1st material expert validator got 84% and the 2nd got 88%. The overall results of all validators 1st get 80% results and the 2nd get 93% results have an increase. Meanwhile, the results of the student response questionnaire obtained 94%. Based on the results of the study, it was shown that the Canva-based digital comic media in the Indonesian language subject matter of energy source material was very feasible to be used as a varied and innovative learning media in learning.

Keywords: Development; Learning Media Innovation; Digital Comics; Canva; Energy sources

INTRODUCTION

The integration of science lessons into Indonesian makes a teacher have to provide a tool in conveying material well and students can absorb the material well and provide examples of real pictures in the discussion by using standard and good sentences. Natural Sciences (IPA) is a science that studies the natural surroundings which can learn about natural events around (Muakhirin, 2014). In science lessons in low grades on the theme Energy and Changes, the sub-theme of energy sources learn about energy sources that exist on earth and their use in everyday life. Therefore, knowledge of energy sources needs to be taught to elementary school students.

Judging from the age stage of development, class III is at the age of + - 9 years, which at this stage requires real objects to help students' understanding of the material to be conveyed by the teacher. At the concrete operational stage, the stage that is still developing its intellectual abilities uses real objects (Rahayu, 2017).

Comics in ancient Greek come from the word comicos which means rejoicing or joking. In its composition, comics describe a series of interesting, coherent, solid and concise stories with characters such as cartoons, animals, plants and others (Saputro & Soeharto, 2015). That way comics can also be used to develop learning materials so that students can easily understand the material when studying and achieve learning goals (Rossana & Siswandari, 2019).

Comic media can be made as attractive as possible. Along with the times, technology is also advancing. Therefore, now comics have switched to digital, not drawn manually. By

utilizing technology, researchers can create comic media digitally by using the Canva application as a support in making digital comics. The Canva application has provided various templates and interesting features to make it easier for users to use it (Puspita et al., 2021). Besides being able to make comics, the Canva application can also make presentations, create modules, learning videos, and many others. From the media that has been made but has the same goal, namely it can be used as a visual aid to make it easier for teachers to convey material and their understanding can be harmonized (Nurrita, 2018). One of the interesting, varied, and innovative learning media is one of which is developing digital comic media based on Canva in the content of Indonesian language lessons on energy sources.

Several schools have not implemented digital comic media as a learning medium, so researchers want to develop Canva-based digital comic media with the aim of increasing learning motivation and increasing student learning interest so that the learning atmosphere becomes interesting, interactive, and fun. Interest in learning media in the learning process is very important for students.

RESEARCH METHOD

The research method used by researchers is the ADDIE development method. According Tegeh & Kirna (2013) that's the ADDIE stage consists of five stages, namely analysis, design, development, implementation and evaluation. This development method serves as a guide in making or developing a product. The development product that will be developed by researchers is Canva-based digital comic media in the form of an audiovisual type which aims to make students understand the material easily, create an interesting, meaningful, and fun learning atmosphere so as to increase students' learning and reading motivation. By using digital comic media as a learning medium, students can independently export the knowledge they get and have a broad imagination about energy source materials by giving concrete or real examples (Siregar, A., & Siregar D. I., 2021). Based on Class III

children with an average age of 9 years are entering the pre-operational stage where at this stage requires real examples.

This research was conducted on class III students at SDN Kawungluwuk, Kec. Sukaresmi, Kab. Cianjur. Prior to being implemented for students, this Canva-based digital comic media product was validated twice by media, language, and material experts in order to get good results. Then after the second validation was tested on 35 students.

Data collection methods used in this study are observation, interviews, questionnaires, and documentation. Research data were analyzed using qualitative techniques and quantitative techniques (Wicaksana et al., 2019). In qualitative techniques describe through the results of observations and interviews to describe according to the situation. In the quantitative technique, the results of filling out the validator's questionnaire were calculated, namely media experts, linguists, and material experts. The questionnaire instrument used the Likert Scale which was used in the media expert muquestionnaire, linguists, material experts to student responses.

Questionnaire assessment using a Likert scale with conditions can be seen in Table 1

Table 1
Scoring Guidelines

Information	Score
Very good	5
Good	4
Currently	3
Bad	2
Very bad	1

The formula used in calculating the percentage:

$$P = \frac{\mathcal{E}x}{\mathcal{E}xi} \, x \, 100 \, \%$$

Information :

P = Feasibility achievement
x = Answer validity score (real value)
xi = highest answer / ideal score (expectation value)

The results obtained are then categorized in table 2

Table 2
Eligibility Level Qualifications

No	Average Score %	Criteria
1	81-100%	Very Worth it
2	61-80%	Worthy
3	41-60%	Decent Enough
4	21-40%	Not feasible
5	0-20%	Very Unworthy

Student response questionnaire, there are ten statements with a scale of five categories, can be formulated as follows.

$$Persentase = \frac{Jumlah\ skor\ jawaban\ respoden}{Jumlah\ skor\ ideal} \times 100\%$$

Assessment of response criteria using a Likert scale can be attached in Table 3

Table 3
Student Response Criteria

Percentage (%)	Criteria
81-100%	Very good
61-80%	Good
41-60%	Pretty good
21-40%	Not good
0-20%	Not good

RESULTS AND DISCUSSION

In its development, this research produced digital comic media based on Canva on the content of Indonesian language lessons on energy sources in class III. This research was conducted to determine the feasibility and validity of Canva-based digital comic media for classroom learning so students don't get bored easily while studying, contain real pictures of energy sources, provide examples in everyday life. Therefore the researchers developed interesting, interactive, varied, and innovative learning media, namely digital comic media based on Canva on Indonesian language lesson material on energy sources. The process for developing Canva-based digital comic media is as follows:

Analysis of learning needs includes basic competencies, indicators, and learning objectives which are used as references and limitations as a form of obtaining initial information as a complement in media development. The curriculum used at SDN Kawungluwuk is the 2013 revised 2018 Curriculum. The basic competencies, indicators, and learning objectives contained are as follows:

Theme : 6 (Energy and Change)
subtheme : 1 (Energy source)

Learning objectives

1. Be able to retell in writing the information about energy sources contained in the text accurately.
2. Can accurately analyze the energy sources on earth.
3. By conducting group discussions, students are able to provide examples of fuel-saving behavior and share their experiences with saving energy appropriately.

Basic competencies

3.2 Explore information about sources and forms of energy presented in spoken, written, visual form, and/or environmental exploration.
4.2 Present the results of extracting information about the concept of sources and forms of energy in written and visual forms using standard vocabulary and effective sentences.

Indicator

3.2.1 Correctly identify information related to energy sources.
3.2.2 Analyzing information related to energy sources appropriately.
4.2.1 Analyzing information about energy sources contained in reading texts appropriately.
4.2.2 Assessing and validating students' understanding of the material sources of energy and forms of energy appropriately.

The second analysis is an analysis of media needs that are in accordance with the characteristics of students and developing media that has not been implemented before by including learning objectives, KD, and appropriate indicators that can create an interesting, interactive, and fun learning atmosphere.

The third analysis is an analysis of the characteristics of the students. It is known that the third grade students at SDN Kawungluwuk are aged± 9 years old which has the characteristics of the concrete operational stage so that it requires learning media that can attract learning attention, explore knowledge, provide real pictures. When studying energy source material, students only use thematic package books as a support for learning media and are given examples of the surrounding environment, while this material should or should be given learning aids to make it easier for students to absorb the material. At SDN Kawungluwuk there are learning facilities such as projectors, laptops that support the use of Canva-based digital comic media to run smoothly.

Design or design stageincludes the design stages of media design using the Canva application which provides various templates and the best and attractive features such as making comics and others. At this design stage, the contents of Canva-based digital comics are adjusted to the appropriate learning objectives, KD, and indicators. With the initial display format, contents, and closing.

Stage of development or developmentrealizing the product design that was made in the previous stage so as to produce digital comic media based on Canva on Indonesian subject matter, good and appropriate energy sources. The contents of the comic contain conversations between characters discussing energy sources which are inserted with examples of forms of utilization in everyday life. After the product is finished, it is validated by media experts, linguists, and material experts who provide an assessment and provide suggestions and input for improvement or revision so that Canva-based digital comic media can be declared fit for use. At the revision stage, suggestions and input were given for the research product to be better by expert validators so as to produce Canva-based digital comic media. The validation stage for this product was carried out twice in order to get good results. The results of validation 1 from media experts obtained 91% in the very feasible category but there were still improvements and additions to slides and the results of validation 2 obtained 92% in the very feasible category without revisions and it was feasible to use. The following is attached in table 4

Table 4
Validation Results of 2 Media Experts

No	Statement	Mark
1	Clarity of material in the media	5
2	The material is presented sequentially and interestingly	4
3	The suitability of the illustration with the energy source material	5
4	Font selection accuracy	4
5	Use Indonesian in accordance with linguistic rules	4
6	Image design gives a positive impression so that it can attract interest in learning	5
7	The color combination used in comics is appropriate and attractive	5
8	The linkage of images in the story and the material is aligned 4	4
9	The use of characters in comics varies	5
10	Attract the attention of students in reading it	4
11	Media suitability with learning objectives	4
12	Comic media can attract students' interest in learning	5
13	Interesting display power	5
14	Comic media design creativity	5
15	Make learning fun	5
Total Rating		**69**
Maximum score (ideal score)		**75**
Percentage		**x100%**
Average total validity (RTV)		**92%**

Furthermore, the results of validation 1 from linguists obtained 64% because there were still many words that were not in accordance with the EYD, wasted words, used English sentences, and non-standard sentences. Then make improvements based on previous suggestions and input so that validation results 2 get 100%. In the following, the researcher attaches the results of the validation test of 2 linguists in Table 5

Table 5
Validation Results of 2 Linguists

No	Statement	Mark
1	Language is easily understood by students	5
2	Easy words to say	5
3	Use Indonesian in accordance with linguistic rules	5
4	Effective and efficient language	5
5	The accuracy of the dialogue or text with the material	5
6	Clarity of information conveyed	5
7	The arrangement of sentences is in accordance with good and correct Indonesian language procedures	5
8	The language used is interactive and communicative	5
9	Punctuation accuracy	5
10	The ease of understanding the language used is in accordance with the elementary level	5
Total Rating		**50**
Maximum score (ideal score)		**50**
Percentage %		**x100%**
Average total validity (RTV)		**100%**

The material expert validation can be seen table 6.

Table 6
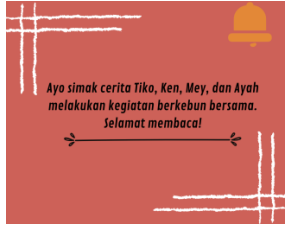Material expert validation

No	Statement	Mark
1	Easy to use in learning energy sources material	5
2	Help students to understand the material	4
3	The suitability of learning media with learning objectives	5
4	The suitability of the energy source material with the comic story presented	4
5	The suitability of the material with the ability of elementary students	5
6	The comics developed are appropriate for increasing knowledge.	4
7	Clarity of material in the media	4
8	The relation of matter to life.	5
9	The material is presented sequentially and interestingly.	5
10	The suitability of the illustration with the energy source material	4
11	Language is easily understood by students	4
12	Use Indonesian in accordance with linguistic rules.	4
13	The presentation of comic media supports students to be involved in learning	5
14	Interesting image presentation	4
15	The presentation of the material presented is in accordance with the thematic package book theme 6 sub-theme 1 on energy sources material	4
Total rating		**66**
Maximum score (ideal score)		**75**
Percentage (%)		**x100%**
Average total validity (RTV)		**88%**

The results of validation by material experts at stage 1 obtained 84% in the feasible category, but revision was needed by adding examples from everyday life. After the revision of validation results 2 obtained 88% and was categorized as very feasible and declared feasible to use.

While the Display of Canva-Based Digital Comic Media can be seen in the table 7.

Table 7
Display of Canva-Based Digital Comic Media

1. Covers	2. Comic Identity
3. Preface	4. Instructions for Using Comics
5. KD, Indicators, and Learning Objectives	6. Character introduction
7. Sentence instructions before entering the contents of the story	8. Fill in the early part of the comic story (setting 1)

9. Sentence Instructions (moved to second place setting)
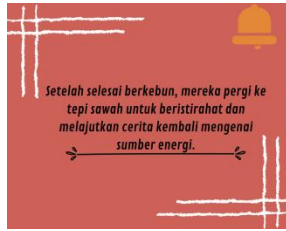
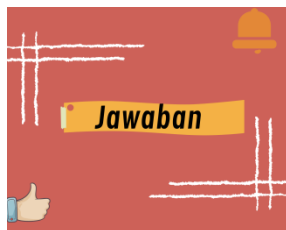10. Fill in the comic story in the second place setting

11. Question session instructions

12. The questions consist of 5 PG and 1 essay

13. Answer session instructions

14. Answer

15. Bibliography

16. Author Biodata

16. Closing

Implementation stage or implementationis a step for implementing Canva-based digital comic media in the content of Indonesian language lessons on energy resources materials for class III students who were previously validated, repaired, and declared fit for use. As well as seeing the reaction generated and the feasibility of the quality of learning and the learning atmosphere becomes fun.

Evaluation stage is the final stage of ADDIE development. At this stage students are given a questionnaire to be filled out by

each student with ten statements and five category scales to find out students' responses to the digital comic media that has been used.

CONCLUSION

Based on the results of the study, it can be concluded that Canva-based digital comic media in Indonesian subject matter, energy sources, is suitable for use as a varied and innovative learning medium that can make students excited and enthusiastic while learning. In its development, Canva-based digital comic media uses the ADDIE stages (analysis, design, development, implementation, evaluation) by carrying out a revision or improvement process once in order to get the best results on the media as well as product validation so that it is declared fit for use. The validation results from the first media expert obtained 91% and the second validation obtained 92%. The validation results from the first linguist obtained 64% and the second validation obtained 100%. The validation results from the first material expert obtained 84% and the second validation obtained 88%. From the whole first validation, 80% was categorized as feasible with revisions then the second validation obtained 93%, categorized as feasible, no revisions and the results of the student response questionnaire obtained 94% and categorized as feasible as a varied and innovative learning media.

The suggestions given by this researcher are: 1). Canva-based digital comic media can be used in learning, especially energy source material. 2). Teachers can use digital comics as a source of energy as a fun learning medium and can attract students' learning enthusiasm. 3). Teachers are expected to be able to develop new learning media innovations from digital comics as energy sources.

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