



## Developing Digital Comics Based On Local Wisdom for Fantasy Story Text to Enhance Student Learning Outcomes

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### ABSTRACT

This research discusses the implementation materials Of comic-based teaching. This research aims to develop teaching materials for fantasy story texts based on local wisdom in the form of digital comics to improve the learning outcomes of fifth grade elementary school students. This research is research and development (R&D). In this research and development, researchers used the ADDIE method, Analysis, Design, Development, Implementation and Evaluation. The results of the development research show that the digital comic teaching materials based on local wisdom for grade V elementary school students produced are said to be very feasible. This is proven by the media expert validation results showing a very good category (96%) from the average validator. The material expert validation results show a very good category (96%) from the average validator. Linguist validation results show a very good category (98%) from the average validator. The results of the student response product trials showed the very good category (87.5%) and the results of the teacher response product trials showed the very good category (94%). In the evaluation of the test results, students obtained an average result of 89.71 with a percentage score of 90% with very good criteria with details of 28 students completing. This comic is a good idea for language learning based on students' interests and talents to improve their learning. The research results are proof that digital comic teaching materials based on local wisdom are very feasible and can be used as learning materials that can improve student learning outcomes.

**Keywords:** *Teaching Materials, Integrated Science, Digital Comics*



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### INTRODUCTION

Teachers have an important role in the world of education, namely in educating, teaching, directing, assessing, training, guiding and evaluating student learning outcomes in formal education. In the teaching and learning process teachers need to prepare innovative teaching materials. Teachers as educators are tasked with managing and developing teaching materials as contained in the Law concerning the National Education System no. 20 of 2013 article 39 states that educational staff are tasked with carrying out administration, management, development, supervision and technical services to support the educational process in educational units.

Teaching materials are all forms of materials used to assist teachers or instructors in carrying out teaching and learning activities in the classroom (Sanjaya et al., 2020). In this sense, Muldofir focuses on the form of materials used by teachers (Nabela & Happy Fitria, 2021); (Nurchaeni et al., 2023); (Handayani et al., 2020). Innovative teaching materials in line with technological developments also greatly influence student learning outcomes (Ahmad & Ika, 2017); (Magdalena et al., 2020); (Shoumi, 2019), teaching materials are a set of learning facilities or tools that contain learning materials (Yuliana & Atmojo, 2021); (Resmini et al., 2021); (Kurniawati & Basuki, 2023), methods (Winarti et al., 2021), limitations and ways of evaluating that are designed, systematically and interestingly in order to achieve the expected goals (SYAPARUDDIN et al., 2020), achieving the expected goals, achieving competencies or sub-competencies with all their complexity (Anzar & Mardhatillah., 2017). This understanding illustrates that teaching materials should be designed and written using instructional rules because they will be used by teachers to help and support the learning process (Permata Puspita Hapsari & Zulherman, 2021); (Nurmiati, 2019).

The use of Indonesian language learning teaching materials at Peureulek 3 Elementary School, East Aceh Regency still relies on teaching materials published from the center and is not based on local wisdom. This is known based on a pre-research study conducted by researchers at Peureulek 3 Elementary School, East Aceh Regency through interviews with Indonesian language study teachers on April 24 2023. The teaching materials used so far have not been able to introduce the richness of the region around students. . The material in these teaching materials has the weakness that it is less focused on local wisdom in the Aceh area, especially East Aceh Regency. The appearance of the book and the media used less interesting, which makes students' interest in reading very low, students are vulnerable to feeling bored with teaching materials that lack innovation, the themes used in learning materials are less appropriate to students' conditions. To increase students' insight and experience in accordance with the area where students live, learning is based on Local wisdom can be integrated with the cultural values found in the area where students live (Subiyantoro, 2024). The importance of applying local wisdom values in learning is useful in increasing students' understanding and increasing knowledge to get to know local wisdom in their environment and as a medium for cultivating a sense of love for local wisdom in their area so that they can provide attitudes and behavior that are in line with the values and rules that apply in the surrounding area.

An important aspect that cannot be separated from culture is local wisdom (Haslan, 2021). Local wisdom can be understood as a human effort to use reason to act and behave towards things, objects or events that occur in a certain space. Local wisdom emerges from a long period of evolution together with society and its environment in a local system that has been experienced together. Local wisdom is part of the life of the supporting community. Each region or ethnicity has its own local wisdom that can be guided by in community life. Local wisdom is legitimized in the legislation of the Republic of Indonesia in Law Number 32 of 2009 concerning Environmental Protection and Management (UUPPLH). Article 1 paragraph 30 of the UUPPLH reads, "Local wisdom is noble values that apply in community life to, among other things, protect and manage the environment sustainably." This article receives a general explanation in paragraph 2 of the UUPPLH which states, "Indonesia's environment must be protected and managed well based on the principles of state responsibility, the principle of sustainability and the principle of justice". Local wisdom can be found in local institutions or relics, which can be in the form of stories (fairy tales, legends, myths, sages, or fables, can also be stories, sagas, and so on).

The results of the researcher's data obtained through a field survey that was carried out showed that Indonesian Language Learning in the State Elementary School Class 3 Peureulek, East Aceh Regency 3.3 Identifying the elements of narrative texts (fantasy stories) that are

read and heard. Retell the contents of narrative texts (fantasy stories read and heard). 3.4 Examining the structure and language of narrative texts (fantasy stories) that are read and heard. 4.4 Presenting creative ideas in the form of oral and written fantasy stories by paying attention to the structure and use of language (Shafira & Santoso, 2021); (Arfiansyah et al., 2019); (Damayanti, 2021); (Syahirah et al., 2020). The fantasy stories used in Indonesian language learning in East Aceh Regency do not yet use teaching materials that touch on the local wisdom of East Aceh (Nelissa et al., 2022); (Tarbiyah et al., 2020); (Sari et al., 2019); (Nelissa et al., 2020). The teaching materials used still provide examples of local wisdom in general which are not in direct contact with the local wisdom found in the East Aceh Regency area. East Aceh Regency is one of the areas in Nanggroe Aceh Darussalam (NAD) which has a variety of oral traditions, including fantasy/fiction stories in the form of fairy tales and folk tales.

There are many folk tales in the archipelago. Each ethnic group has various kinds of folklore, just like East Aceh. Based on a pre-research study conducted by researchers in Peureulek State Elementary School Class 3, East Aceh Regency through interviews with Indonesian language study teachers on April 24 2023, the majority of students consider fantasy stories to be material that is very difficult to learn. Apart from that, the teaching materials used by teachers during the learning process only use teaching materials produced by the Ministry of Education and Culture, namely Indonesian Edition Books.

Revised 2016. Innovative teaching materials really support better learning outcomes. However, the learning outcomes achieved by Class V students of Peureulek 3 Elementary School, East Aceh Regency on KD 3.3 Identifying elements of narrative texts (fantasy stories) read and heard were not optimal. This is because the teaching materials and media used by teachers are not yet based on local wisdom and the media used is not appropriate to the current situation of students who are all digital, so that student activity and enthusiasm is very lacking and this has an impact on student learning outcomes that are not optimal.

Alternative teaching materials can also be used by taking advantage of the conditions in the environment around students as additional teaching materials for students in the East Aceh area itself. The introduction of local wisdom in the form of oral traditions such as folklore in East Aceh Regency provides awareness for students that they also have a culture, thereby increasing their horizons of thinking to study and preserve everything in their area that has experienced a shift.

Based on pre-research studies through interviews with several traditional figures or community leaders conducted by researchers, one of the folk tales found in Aceh is a folk tale entitled "The Story of Putri Nurul 'Ala Menipu Berbu Tapa". This story is part of the traditions found in Aceh. These stories and traditions are local wisdom that must be known by all Acehnese people, especially Peurelak, East Aceh Regency. Local wisdom itself is a habit that lives and develops in the lives of people in an area (Pingge, 2017). Local wisdom is unique and regional because it is only practiced by the same community. The value of local wisdom will usually stick if it is carried out through a very long process of application in daily life. The easiest way to preserve local wisdom values is through learning implemented in schools using comics. Comics are teaching materials that are effectively used as a medium for learning Indonesian, especially narrative text materials/fantasy stories.

Comics are a popular art form, especially among children and as such can be used as a potential medium for education (Rahim et al., 2022). The picture-filled and interactive nature of comics helps students quickly grasp the meaning of the comic's contents and be interested in knowing what continues on the next page. Comics will be used as Indonesian language learning material in KD 3.3 Identifying the elements of narrative texts (fantasy stories) that are read and heard are digital comics based on local wisdom. (Ratnasari & Ginanjar, 2020) explains that comics are sequences of images arranged according to the creator's goals and

philosophy so that the message of the story is conveyed, comics tend to be given the necessary lettering according to needs. Comics are defined as a form of cartoon that reveals characters and implements a story in a sequence that is closely related to the images and is designed to convey to readers (Nurhayati et al., 2019). (Ratnasari & Ginanjar, 2020) comics are pictures that make the story easy to absorb or understand, meanwhile the text makes the comic easy to understand and the storyline makes the message or information to be conveyed easy to follow and remember.

## METHODS

This research is included in the type of development research (Research & Development). Research & Development (R&D) is a research method carried out to produce certain products, and test the effectiveness of these products (Sugiyono, 2017). Meanwhile, according to (Sukmadinata, 2010), research and development is a research approach to produce new products or improve existing products.

From the explanation above, it can be concluded that this development research uses the ADDIE (Analysis, Design, Development, Implementation, Evaluation) method, which stimulates the main processes of the learning system development process. This research was carried out at the Peureulak 3 Elementary School which is located at Jalan Puskesmas, Lhok Dalam, Kec. Peureulak, Kab. East Aceh Province. Aceh. The sample for this research consisted of 28 students in class V of Peureulak 3 State Elementary School.

The ADDIE development method consists of five stages which include analysis, design, development, implementation and evaluation (Sugiyono, 2017).



**Figure 1. ADDIE Development Model**

Development steps explain the procedures followed by researchers in developing products, indirectly providing instructions on how the procedural steps are followed to get to the specified product.

In accordance with the research and development model above, the product developed follows the research and development procedures for teaching materials which are explained as follows:

### *Analysis*

At this stage the researcher carries out a needs analysis which is the main stage of the research to determine the learning needs of students and analyze the curriculum used. At this stage, the aim is to find out the needs needed at the Peureulak 3 Public Elementary School, and to provide input to researchers so they can develop digital comic teaching materials based on local wisdom that suit the needs of students and at the school.

### *Design*

Based on the analysis, the researcher then designs digital comic teaching materials based on selected local wisdom and can be carried out with a frame of reference including:

1. Selection of basic competency determination.
2. Learning objectives.
3. Selection of concepts and materials in making Indonesian language teaching materials based on local wisdom-based fantasy stories.

#### *Development*

At this stage the researcher carried out development, aiming to produce a product developed by the researcher, namely digital comic teaching materials based on local wisdom. Material teach digital comics based on local wisdom that have been designed and planned, then validated by several validators including material experts, media experts and language experts.

#### *Implementation*

At the implementation stage, it is used to determine the effectiveness and practicality of local wisdom-based digital comic teaching materials that have been developed and validated by experts. So it is feasible to be implemented with the aim of proving that digital comic teaching materials based on local wisdom are effective and practical to be used as Indonesian language teaching materials for class V of Peureulak State Elementary School 3, East Aceh.

#### *Evaluation*

At this stage the researcher carries out an evaluation to find out which digital comic teaching materials based on local wisdom have been developed and can see the feasibility of the product being developed, so that the perfection of a product that has been developed and the evaluation that has been carried out can be known.

## **RESULTS AND DISCUSSION**

### **Results**


The initial stage carried out by researchers was to carry out a needs analysis. A needs analysis was carried out to measure the need for learning books developed in the form of digital comic teaching materials based on local wisdom. A needs analysis was carried out with the fifth grade teacher at Peureulak 3 Public Elementary School by preparing several questions. From the results of the analysis, information was obtained that the lack of teacher teaching materials and less interesting teaching materials were one of the causes of the lack of varied learning in Indonesian language learning. Based on the needs analysis and development objectives, researchers developed digital comic teaching materials based on local wisdom to add to teachers' teaching materials and increase teacher references at Peureulak 3 Public Elementary School.

After various considerations, researchers have found a solution to the problems above, namely by developing digital comic teaching materials based on local wisdom. Through the development of teaching materials on class V fantasy story text material, it provides convenience and effectiveness for learning carried out in class in Indonesian Language Learning. With a minimum completeness criterion of 75, students' scores increase significantly through the development of digital comic teaching materials based on local wisdom with validity, practicality and effectiveness with measurable data and values. Analysis results pre-test For class V students, the average was 71.28 and the percentage of completeness was 71%. With the number of students who completed 14 students and 14 students who did not complete. Based on the results of the students' Pre-Test through the Pre-Test questions, from these results there were 14 students who got a completeness score above the minimum completeness criteria (75), 14 students got a complete score below the minimum completeness criteria score (75), with a completeness percentage of 50% and below the completeness criteria. minimum percentage of 50%.

The design stage is the product design stage before production, the researcher first determines the learning objectives, material flow and determines the book design. At this stage, the researcher has the aim of developing a book that functions as access to add teacher

references and improve student learning outcomes. Researchers designed digital comic teaching materials based on local wisdom that are suitable for use, have key components that include understanding environmental changes and changes in the form of objects, and understanding students' learning needs. The design of this teaching material aims to improve student learning outcomes regarding fantasy stories and provide clear guidance in the use of comics in the learning process and it is hoped that the teaching material can improve student learning outcomes. Then the researcher designed the material in terms of fantasy stories in short delivery and clear. Then design in terms of language the digital comic teaching materials based on local wisdom using language that is clear, straightforward and easy to understand. Digital comic teaching materials based on local wisdom are designed according to the needs of fifth grade teachers and students, consisting of fantasy story material arranged systematically, covering all relevant curriculum standards. The approach to delivering material in this teaching material is interactive, inviting students to actively participate in learning and includes reflective questions.

**Table 1. Digital Comic Teaching Material Design**

No	Structure	Digital Comics Based on Local Wisdom
1	Cover	1. Cover 
2	Foreword	2. Foreword Contains thanks for participation and motivation and assistance from various internal parties preparation of digital comics based on local wisdom
3	Table of Contents	3. Table of Contents Contains the contents of digital comics based on local wisdom
4	Implications	4. Implications Contains digital comics based on local wisdom
5	Suggestions	5. Suggestions Contains suggestions regarding digital-based comics local wisdom
6	Bibliography	6. Unit 6 Reference
7	Biography	7. Unit 7 Writer biography

The development stage is the core stage of several stages that have been implemented. At this stage, the product that has been developed is adjusted to the model structure of the planning stage, including materials, supporting images, design, etc. The stages are validation of design experts by validators.

The results of this research are the design of digital comic teaching materials based on local wisdom for class V students at Peureulak 3 Elementary School. The following is the product "Development of Teaching Materials for Fantasy Story Text Material Based on Local Wisdom in the Form of Digital Comics to Improve Learning Outcomes for Class V School



Students Base". Based on the overall assessment of product experts, it can be concluded that an average of 97%, media experts 96%, materials experts 96% and language experts 98% are obtained by digital comic-based teaching materials. Local wisdom that can be implemented in class V students at Peureulak 3 Elementary School in the very feasible category.

The implementation stage is an activity that applies digital comic teaching materials based on local wisdom that have been developed. After being declared very suitable by the validator, digital comic teaching materials based on local wisdom can be applied in the classroom. On June 1, 2024, researchers implemented digital comic teaching materials based on local wisdom to class V students at Peureulak 3 Elementary School, totaling 38 students, with details of 14 boys and 14 girls. The following are the stages carried out when implementing wisdom-based digital comic teaching materials local.

**Table 2. Implementation of Learning Using Digital Comic-Based Teaching Materials Local Wisdom**

Activity Description
<b>Opener</b>
<ol style="list-style-type: none"> <li>1) The teacher says hello and the students answer.</li> <li>2) The teacher and students pray together</li> <li>3) Students and teachers sing the video of the Garuda Pancasila song together. (TPACK) <a href="https://www.youtube.com/watch?v=1oxKo5gPwf4">https://www.youtube.com/watch?v=1oxKo5gPwf4</a></li> <li>4) The teacher asks about student attendance</li> <li>5) The teacher informs the material being studied, namely about "fantasy stories". 6) Students listen to the teacher's explanation regarding the learning objectives. 7) Students listen to information regarding the steps in learning activities carried out today.</li> <li>6) Students are given motivation by conducting questions and answers: <ul style="list-style-type: none"> <li>• What do you know about fantasy stories?</li> <li>• What is the title of a fantasy story you have read?</li> <li>• Who are the characters in the fantasy stories you read?</li> </ul> </li> </ol>
<b>Core Activities</b>
<p><b>Syntax 1: Student orientation to the problem</b></p> <ol style="list-style-type: none"> <li>1) The teacher explains about the existence of digital comic teaching materials.</li> <li>2) Students follow the teacher's directions regarding the use of digital comics.</li> <li>3) Students and teachers conduct questions and answers related to the content of digital comics.</li> <li>4) Students listen to a short explanation given by the teacher.</li> </ol> <p><b>Syntax 2: Organizing students to learn</b></p> <ol style="list-style-type: none"> <li>1) Students are informed about the tasks carried out individually.</li> <li>2) Students are informed about tasks to be carried out in pairs and groups.</li> <li>3) Students are also informed about what things are needed to complete the tasks that will be done during learning.</li> </ol> <p><b>Syntax 3: Guiding and investigating group individuals</b></p> <ol style="list-style-type: none"> <li>1) Students work together to work on the LKPD that has been given by the teacher.</li> <li>2) Students hold discussions with group members with teacher guidance.</li> <li>3) Students listen to the teacher giving directions to express opinions and each group member respects the opinions given by other groups.</li> </ol> <p><b>Syntax 4: Develop and present results</b></p> <ol style="list-style-type: none"> <li>1) Students present the results of the LKPD they have worked on.</li> <li>2) Students present the results of the discussion with teacher guidance.</li> <li>3) Students from other groups provide responses, input and suggestions regarding their friends' displays.</li> <li>4) Students are given motivation and rewards to ask and answer questions about the material presented.</li> <li>5) The teacher invites students to do it Ice Breaking with youtube video guide: <a href="https://youtu.be/dITNmezPV5A?si=jPhxZO7E_Xtmdw88">https://youtu.be/dITNmezPV5A?si=jPhxZO7E_Xtmdw88</a></li> </ol> <p><b>Syntax 5: Analyze and evaluate processes</b></p> <ol style="list-style-type: none"> <li>1) The teacher distributes evaluation question sheets and reflection sheets to students.</li> <li>2) Students work on evaluation question sheets and learning reflection sheets then submit them to the</li> </ol>

teacher.

- 3) Students are given appreciation by the teacher for the material they have mastered, such as giving praise or rewards.
- 4) Students and the teacher discuss material that they have not yet mastered.
- 5) Students together with the teacher make conclusions about the problems encountered.
- 6) Students listen to reinforcement and conclusions about the material.

#### Closing

- 1) The teacher reviews all the activities that have been carried out.
- 2) Teachers and students draw conclusions from what they have learned today.
- 3) The teacher provides information regarding learning activities at the next meeting.
- 4) The teacher closes the lesson and takes turns giving other students the opportunity to lead a prayer together after finishing the lesson and continue with greetings.

The fifth stage of the ADDIE development model is the evaluation or assessment stage. After the implementation stage is carried out, the next stage is assessing the learning materials. Evaluation of teaching material products from the aspect of effectiveness is seen from the results of student scores after the implementation stage. Evaluation is used to determine the effectiveness of the product that has been made, evaluation value is obtained through implementation Post-Test which was carried out aimed at finding out improvements in student learning outcomes using digital comic teaching materials based on local wisdom. The following is an analysis of evaluation data using the Gain/N-Gain test and continued with hypothesis testing;

#### Uji Gain

The increase in student learning outcomes in understanding is marked by the Gain value. Gain is the difference between the posttest and pretest scores. Gain shows the increase in students' abilities after the learning process. The normalized NGain test was carried out to show how much students' abilities increased in cognitive aspects after participating in learning activities using digital comic teaching materials based on local wisdom. The N-Gain calculation is the difference between the posttest and pretest scores divided by the difference between the highest score and the pretest score. Following are the NGain score results:

**Table 3. N-Gain**

	N	Minimum	Maximum	Mean	Std. Deviation
Ngain_Score	28	.25	,100	.8971	.23522
Ngain_Persen	28	25.00	100.00	89.7140	23.52174
Valid N (listwise)	28				

Table 3 shows the results of the N-Gain Score mean value of 0.8971, this value is greater than 0.3 ( $0.89 > 0.3$ ), so the category obtained is high/high effectiveness. N-Gain Percent mean value is 89.7140, this value is greater than 76% ( $89\% > 76\%$ ), so it is interpreted as effective. So it can be concluded that the use of digital comic teaching materials based on local wisdom to improve student learning outcomes has proven to be effective.

#### Research Hypothesis

Based on the results of the N-Gain test, it has been proven that the use of digital comic teaching materials based on local wisdom can improve the learning outcomes of class V students at Peureulak 3 Elementary School. The basis for decision making is that the hypothesis is accepted if the mean value is  $> 0.3$ . The following is the hypothesis used:

Ho: student learning evaluation score  $> 75$

Ha: student learning evaluation score  $< 75$

So based on the conclusion of the hypothesis, it is stated that ho is rejected and ha is accepted.



Based on the results of data analysis on values Pre-Test and Post-Test Class V students at Peureulak State Elementary School in learning Indonesian use digital comic teaching materials based on local wisdom, fantasy story material with details in the following table:

**Table 4. Values Pre-Test and Post-Tes**

Indikator	Pretest	Posttest
Minimum	55	80
Maximum	88	95
Average	70	91

## Discussion

The digital comic teaching material based on local wisdom that was developed was a development of an Indonesian language learning book which was developed into a digital comic teaching material based on local wisdom which has different elements. The teaching materials developed are comic-based which contain material and questions about environmental changes and changes in the form of objects.

The product being developed is carried out in accordance with the development procedures used in developing this learning media, adapted from (Lee & Owens) 2004. The development model focuses on multimedia development, namely the ADDIE model with five stages, namely: analysis (needs analysis), design (product plan), development (Creation of digital comic teaching materials based on local wisdom, Validation of design, material and language experts), implementation (product application, product feasibility), and evaluation (product effectiveness).

Information obtained from observations in class V of Peureulak 3 Public Elementary School still lacks teaching materials and references for Indonesian language learning and student learning outcomes in Indonesian language learning are still low. Learning only uses conventional books, namely books and student worksheets provided by the school and there is a lack of learning materials for teachers to use.

Researchers are trying to develop a product in the form of Indonesian language learning teaching materials to add teacher references to Indonesian language learning. The researcher developed digital comic teaching materials based on local wisdom. The researcher presented an attractive design that suited the characteristics of students, with a concept that was short and easy for teachers and students to understand. Attractive design, able to stimulate students to be more interested in learning. The following is an explanation of the steps in developing digital comic teaching materials based on local wisdom.

The first stage of this development is to carry out an analysis, namely needs analysis, identifying what books teachers and students need to improve student learning outcomes and create a more interesting learning process. Based on the results of the analysis, data showed that the average student score was 71.28 and the percentage of completeness was 71%. Based on this data, it is stated that student learning outcomes are still low which is caused by the implementation of learning that is not varied and teachers only use one reference, namely books from the government. Therefore, researchers developed digital comic teaching materials based on local wisdom which they felt provided new variations to the Indonesian language learning process and an action which they felt could improve the learning outcomes of class V students at Peureulak 3 Public Elementary School.

Next, the second stage is the design stage, namely product design. The researcher's product design first determines learning indicators, materials and determines the design of teaching materials. At the material design stage the researcher refers to CP and TP in Indonesian language learning. Digital comic teaching materials based on local wisdom are

designed according to teacher needs and serve as a use in adding teacher references or teaching materials for teachers to use.

Then, after the digital comic teaching material product based on local wisdom has been developed according to the plan, a design, material and language validation process is carried out to determine the validity of the product that has been developed. Digital comic teaching materials based on local wisdom were validated by lecturers at Bina Bangsa Getsempena University, Banda Aceh. Based on the overall assessment of product experts, it can be concluded that an average of 97%, 96% for media experts, 96% for material experts and 98% for language experts for local wisdom-based digital comic teaching materials can be implemented in class V students at state elementary schools. 3 Peureulak in the very worthy category.

Next, the fourth stage is implementing teaching materials for learning Indonesian directly to students. From the results of calculating student and teacher responses above, it can be seen that based on the data obtained, the data obtained from the results of teacher responses obtained a score of 94% and this can be categorized as digital comic teaching materials based on local wisdom is a very good and practical teaching material to develop. And the data obtained from the results of student responses obtained a score of 87.5% and this can be categorized as digital comic teaching materials based on local wisdom are interesting learning materials for students. This shows that digital comic teaching materials are based on local wisdom which aims to add teacher references as material for teachers to use. This can be categorized as digital comic teaching materials based on local wisdom which are very suitable learning materials for students.

In the final stage, namely the evaluation stage, researchers measured whether digital comic teaching materials based on local wisdom could improve student learning outcomes through test questions. Based on the results of the evaluation of test questions for class V students, they obtained a percentage result of 91% in the effective category. Proven by the N-Gain Score mean value of 0.8971, this value is greater than 0.7 ( $0.89 > 0.7$ ), so the category obtained is high/high effectiveness. N-Gain Percent mean value is 89.7140, this value is greater than 76% ( $89 > 76$ ), so it is interpreted as effective.

Basically, the teaching and learning process is a communication process that occurs from teacher to student or between students. In the process of conveying the message, a medium is needed so that the message can be received well. The use of teaching materials provides benefits in the learning process, including: 1) clarifying the presentation of messages and information so that the learning process runs smoothly and improves learning outcomes, 2) increasing student motivation, by directing students' attention so as to enable students to learn independently according to their needs abilities and interests. Learning materials are one of the supporting materials that can be used by teachers, but a teacher must be careful and precise in selecting learning materials so that the learning materials will be able to motivate students, increase student activity and arouse students' interest in learning so that students' attention is focused on the topic of the material being discussed. . One of the learning materials that can be used as a learning resource which is felt to be able to help students and teachers in the learning process is by using digital comic teaching materials based on local wisdom which can improve student learning outcomes at Peureulak 3 Public Elementary School.

## CONCLUSION

In the process of developing digital comic teaching materials based on local wisdom using the ADDIE (Analysis, Design, Development and Implementation, Evaluation) model, researchers carried out all stages. Based on the results of the analysis, data showed that the students' average score before the action was 71.28 and the percentage of completeness was 71%. The

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results of the development research show that the digital comic teaching materials based on local wisdom for grade V elementary school students produced are said to be very feasible. This is proven by the media expert validation results showing a very good category (96%) from the average validator. The material expert validation results show a very good category (96%) from the average validator. Linguist validation results show a very good category (98%) from the average validator.

The results of the student response product trials showed the very good category (87.5%) and the results of the teacher response product trials showed the very good category (94%). In the evaluation of the test results, students obtained an average result of 89.71 with a percentage score of 90% with very good criteria with details of 28 students completing. So from this research the criteria have been fulfilled, namely the very good category in validation results, teacher and student response results and test question results, so these results are proof that digital comic teaching materials based on local wisdom are very feasible and can be used as learning materials that can improve student learning outcomes. Thank you for the support and motivation of the research location school, hopefully the results of this research can be developed again by other researchers.

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