E-Comic of Folklore in the Javanese Language to Increase 4th Graders’ Learning Outcomes

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Abstract: Based on the initial identification of research on the Javanese lessons, learning media is less attractive and innovative. To maximize students’ activities and learning outcomes, the researchers developed the Javanese e-comic media. The researchers employed the simplified Borg and Gall model for research and development. Following the conditions of the research, the research steps include 1) identifying potential problems; 2) collecting data; 3) designing media; 4) validating the media; 5) revising; and (6) mass-producing. Data collection with non-test techniques, interviews, teacher and student needs, and documentation methods. The results showed that E-comics Javanese folklore material was declared very feasible, which is the result of this study. The material expert assessment obtained 91.42 percent in the very feasible category. Furthermore, the media experts’ assessment obtained 87 percent in the feasible category. Positive students and teachers’ responses to the media were 89 percent and 98.20 percent in the feasible category. Finally, E-comics with folklore material are feasible to be used in Javanese lessons. Through the Javanese folklore E-Comic developed, it has implications for students to be more receptive to learning and attract students’ attention to learning.

INTRODUCTION
The National Education System in Indonesia mentions that national education develops abilities and shapes the character and civilization of a dignified nation by educating the country's life (Kurniasih, 2011; Shaturaev, 2021). Education oriented towards character formation can be realized by optimizing language and literature's role (Hidayat, 2016; Truscott & Hsu, 2008). Language and literature education is felt to be very important, when an educator provides teaching to his students, he can use the language correctly and adequately (Jayanti & Norahmi, 2014; Yusny, 2013). The literature contains ethical and moral values related to human life and life. Literature not only speaks of oneself (psychological) but also pertains to God (religiosity), the universe (romantic), and also its society (sociological) (Rahman, 2018). Language is used to convey ideas in oral and written conversations (Hernawati, 2007; Taghizadeh et al., 2019).

Javanese is one of the lesson contents in the 2013 Curriculum at the elementary school education level. Javanese language learning is taught to students to improve Javanese language skills both orally and in writing (Kurniati, 2015; Suwarno, 2001). The Javanese language has become a mandatory local content for all levels of education in
The Javanese language has become one of the contents of lessons used to grow the nation's identity, plant character ethics, and as a means for learners to understand the variety of regional languages (Ihsan, 2019). The use of good Javanese among learners can increase the value of character. These values can be planted in school through folklore learning materials because it contains Javanese life values, such as Javanese language habits among the community (Saputra et al., 2020; Wijayanti, 2019; Wiranti & Munir, 2019).

Improving the quality of teacher and student learning processes and outcomes can be facilitated with learning media (Falahudin, 2014; Fitriya et al., 2021; Istiqlal, 2018). The development of learning media that is exciting and following student development is an effort to overcome learning media that is less interesting. Other problems related to the continuity of the education process during the pandemic needed media that can be applied through distance learning methods and Javanese language lesson content (Falahudin, 2014; Fitriya et al., 2021; Istiqlal, 2018).

Learning is declared successful if 75% or more of the number of students who follow the learning process reaches a minimum success stage or reaches KKM based on the determination of the education unit; if less than 75%, then remedially held (Suwarni et al., 2018; Yusuf, M. & Pujiastutik, H., 2017). Efforts to minimize, of course, by improving the quality of good learning, including appropriate learning media (Nurrita, 2018; Suprapto, 2006).

Research activities provide solutions to problems by developing e-comic media. A comic is a cartoon character representing a sequential story associated with an image. The use of comics as a medium should be combined with teaching methods so that comics can be an effective learning medium (Sudjana, 2019). E-comics are developed in applications that contain comics and can be operated through a device. E-comic media supports the implementation of distance learning because there is no need for face-to-face directly between teachers and learners (Bara et al., 2021; Nugraheni, 2017). Comics are a modern pedagogical strategy that is gaining popularity in teaching nature study. This study presents so-called conceptual comics, which help illiterate preschool children understand a specific natural phenomenon (Wiegerová & Navrátilová, 2017).
E-comics developed contain illustrations of images that have a specific storyline. The images serve as an explanation that applies to research and all aspects (Savitri & Setiawan, 2018). The story used in the e-comic is a local folk story, using the language of instruction, namely Javanese. Folklore is old prose of oral tradition. Folklore can be interpreted as an oral story that includes a legend, fairy tale, music, joke, oral history, saying, superstition, or habit into the tradition in culture, subculture, or group (Khoirurrohman & Anjany, 2020; Sudigdo, 2018; Sumayana, 2017).

Based on previous research, e-comic is feasible and effective on folklore material (Fujiastuti et al., 2019). Other studies strengthen the results of these studies, that e-comic is an exciting learning media (Rachmadani et al., 2021). The comics catch the attention of the children with the humorous side. On the other hand, according to the learning theories, creative activities make learning more effective (Tuncel & Ayva, 2010).

The comics in this study were used to decipher children's difficulties in understanding folklore, which had been delivered in spoken language. Comics are illustrated stories. The study used electronic comics or e-comics, making it easier for children to carry and use while learning. E-comic serves to convey spoken folklore and changes into images. The research overcomes the problem in the content of Javanese lessons. The purpose of the research is to develop media feasibility testing, including analyzing the responses of teachers and students toward the e-comic Javanese folklore.

**METHOD**

This research employed Borg and Gall's research and development method (Borg & Gall, 2003). The method consists of product development, product planning process, and product production to assess the validity of the products developed (Sugiyono, 2015). The steps were simplified to only six steps adjusted to the needs, times, and circumstances at the time of research (Islami et al., 2018). The steps consisted of 1) potential problems, 2) data collection, 3) design creation, 4) design validation, 5) design revision, and 6) product creation. The steps are illustrated in the following chart.

![Development Model](image)

**Figure 1. Development Model**

Products developed in the form of e-comic Javanese folklore are used to improve learning outcomes. The free variable in this study is e-comic media, while the bound variable is learning outcomes. The subjects of this study are 39 students of grade IV, one teacher in the fourth grade of Sampangan 02 Elementary School, and two experts, namely material and media experts, who act as validators of e-comics. The choice of the school because it has problems related to the difficulty of students understanding folklore in depth. Data
collection was done using Google Form. Data collection techniques consisted of interviews, questionnaires about the needs of teachers and students, and documentation. The data analysis section used due diligence and teacher and student responses analysis.

An expert validator on the product carried out the feasibility test. The media feasibility assessment instrument was analyzed using the following formula:

\[ P = \frac{f}{N} \times 100\% \]

Information:
P : Percentage number
f : Score obtained
N : Overall score

The results of the feasibility data obtained were then converted to the following criteria:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>82 % - 100 %</td>
<td>Very feasible</td>
</tr>
<tr>
<td>63 % - 81 %</td>
<td>Feasible</td>
</tr>
<tr>
<td>44 % - 62 %</td>
<td>Quite feasible</td>
</tr>
<tr>
<td>25 % - 43 %</td>
<td>Not feasible</td>
</tr>
</tbody>
</table>

**RESULT AND DISCUSSION**

This Javanese Folklore E-Comics' research and development results include the development of e-comic media, assessment of e-comic feasibility, and teacher and student responses to e-comics.

**Development of Javanese Folklore E-Comics**

E-comic Javanese folklore is a comic in the form of an application that media experts and material experts validate can be operated through a device. This type of application is beneficial in giving the media a more beautiful view (Aprilianti et al., 2013; Habibati et al., 2019). E-comics is designed using Corel Draw X5 software to create images and stuffing. The design was published using Ispring Suite 9. The proceeds from the publish are exported into applications using Web2Apk.

E-Comics about Rawa Pening is folklore from Central Java, which was compiled to facilitate students in understanding Javanese folklore material. The e-comic developed contains local folklore, namely "Dumadining Rawa Pening," with the language of instruction in Javanese. Another goal of E-Comic is to improve the quality and quality of teaching and learning activities in schools. E-comics are designed with more than 20 panels. The letters used are October Twilight, Muffin, and Sunrise International Demo, with various letter sizes.
Media is developed in this research following the characteristics of students and teachers to achieve learning goals maximally. The activity is to create an e-comic. The discussion results found issues in the content of Javanese lessons that low learning results have not optimally supported. Based on interviews, this is due to the lack of attractive, practical, and creative media for students. The next stage is the collection of data to be used as material to plan products that can later overcome problems related to the Javanese language. Data was collected into e-comic development material. Products are designed according to the needs of teachers and students. Media and material experts validate the developed product to determine its feasibility. Assessments and suggestions provided by validators become a reference to make product improvements. The final product
is an e-comic in the form of an application that can share with students for responses.

![Diagram](image)

**Figure 4. Production of E-Comics Javanese Folklore**

**Feasibility Assessment of Javanese E-Comics Folklore**

Media feasibility assessment is carried out in two stages by two validators, namely material and media experts. The first stage of evaluation by material experts on e-comic. The questionnaire contains content feasibility, language, and presentation at this stage. The second stage is an assessment by media experts. The validation questionnaire includes two aspects of images/illustrations, appearance, media use, and media comfort. The purpose of expert assessment is to test the media developed, whether it is suitable for use as a medium or needs to be improved both from the material and appearance of the media. After the expert validator gives a score on the assessment questionnaire, it is converted to the assessment criteria. The assessment criteria are the range of 82% - 100% of media can be categorized as "Very Feasible," the range of 63% - 81% of media is classified as "feasible," the range of 44% - 62% of media is categorized as "Quite Feasible." 25% - 43% of media is categorized as "not feasible" (Sudjana, 2005).

On the media validation instrument, 21 questions are provided. E-comic media received a positive response in every question and earned 87%, a feasible category. On the media validation instrument provided 20 questions, e-comic media obtained a value of 91.42%, so it can fall into the very feasible use. Expert validation recap of media and materials is presented in the following Table 3.

<table>
<thead>
<tr>
<th>Table 3. Assessments from Media and Material Experts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assessment Aspects</strong></td>
</tr>
<tr>
<td>Content, language, and presentation feasibility</td>
</tr>
<tr>
<td>Images/illustrations, appearance, media use, and media comfort</td>
</tr>
</tbody>
</table>

Based on the Table 3, it was concluded that the assessment of the media and material validator each has a category "Very feasible." This indicates that e-comic is very suitable for use in learning activities. E-comic is tested for feasibility by media and material experts. This aims to determine whether can use the media's feasibility in learning. Media and material validators have validated media assessment instruments. The assessment instrument becomes a reference for validators in assessing the material and media to determine the feasibility of e-comics.

The results of the media assessment obtained a percentage of 87%, which showed that Javanese e-comic media folklore material is "very feasible" to be used for learning. The material
assessment result obtained a percentage of 91.42%, indicating that the media of folklore material is "very feasible" to be used in learning. Based on media and material validation results, e-comic media falls into the category of very feasible as a medium of education (Rachmadani et al., 2021). The results indicated possible positive effects on vocabulary development and motivation to read and overcoming linguistic barriers in reading authentic material using the context and prior knowledge (Cimermanová, 2015).

**Student and Teacher Responses**

Students and teachers react by filling out questionnaires through a google form. The results of student and teacher responses can be seen in Table 4.

<table>
<thead>
<tr>
<th>Response</th>
<th>Total Score</th>
<th>%</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student</td>
<td>766</td>
<td>98</td>
<td>Very feasible</td>
</tr>
<tr>
<td>Teacher</td>
<td>22.25</td>
<td>89</td>
<td>Very feasible</td>
</tr>
</tbody>
</table>

The assessment conducted by the student obtained a score of 766 out of a total score of 780. The value is further analyzed using the feasibility percentage formula according to Sudjana, resulting in 98 % with very feasible criteria. The teacher’s assessment scored 22.25 out of a total of 25. The score is further analyzed, resulting in 89 %, with very feasible criteria.

E-Comics have been declared viable and then distributed to teachers and students for responses. The response questionnaire aims to determine whether the media is following the needs of students and can overcome problems in learning. The response questionnaire is shared through a google form, for E-Comics media shared through WhatsApp group grade IV. Student response questionnaires were given to 39 students in grade IV. In the recapitulation of student responses, e-comic media scored 98 %, indicating that the media is "very feasible." In the recapitulation of teacher responses, e-comic media scored 89 %, indicating that media with folklore material are "very feasible" for learning. Based on the recapitulation of teacher and student responses, Javanese e-comic media folklore material is feasible as a medium applied in learning. The advantage of this comic lies in its dynamic and non-boring layout. In addition, the colorful display of images attracts children to see and read these comics more focused.

E-comics are scientifically proven to be a learning facility to enhance the learning outcomes of elementary school students. E-comics are generated and validated by two experts, feasibility of use in learning. If you trace the results of some previous research, e-comics are beneficial for learning and can improve learning outcomes. Educational e-comics that prioritize character education are feasible for application and are expected to increase students' motivation to learn and improve student learning outcomes (Angga et al., 2020). Other research findings suggest that e-comics are effectively used for learning (Wicaksana et al., 2020).

Research related to proving e-comics is adequate to support learning activities. Based on the results of learning device development, the quality of thematic e-comic design based on environmental education with Macromedia-flash application is good and has met the feasibility as a learning device in elementary school starting classes and is effectively used to support learning (Agustiningsih, 2015).

**CONCLUSION**

E-comics are developed in the form of device applications that users can install. E-comics were created with the local folklore “Dumadining Rawa Pening” using the Javanese language of instruction. E-comics based on the validation questionnaires of material and media experts. Javanese e-comics folklore material is considered very feasible for
use in learning. Through the Javanese folklore E-Comic developed, it has implications for students to be more receptive to learning and attract students' attention to learning. Javanese folklore E-Comic media helps teachers and students learn to decipher oral concepts into images. Javanese folklore E-Comics can optimize teaching and learning activities and improve students' understanding of Javanese folklore materials.

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