KOMPAS (Komik Pubertas) Learning Media Development Based on the Qur'an and As-Sunnah for Elementary School Students

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Abstract
Development Learning Media KOMPAS (Comic Puberty) based on Al-Quran and As-Sunnah for Elementary School is research beside deficiency learning media that discusses puberty subjects in elementary school. The purpose of this research is to find out student responses about the attractiveness of learning media KOMPAS (Comic Puberty) based on Al-Quran and As-Sunnah by developing learning media of KOMPAS. The research method used (Research and Development) and the development model used the Rowntree development method. This learning media has been developed and has been validated by material experts, linguist experts, and media experts. This Development method has two stage trials, face to face tryouts learners and field tryouts. The result of the language validation test reached 98%, material validation reached 92% and media validation reached 86%. The result of student responses about the attractiveness of learning media was reached 100%. Based on this data, this learning media KOMPAS (Comic Puberty) based on Al-Quran and As-Sunnah is valid and attractive for students in elementary school.

Keywords: Learning media, Comic, Puberty, Natural Science, Student

INTRODUCTION
Education is an important thing that must be owned by every human being in the world. Without education, the country will be far and left behind from other countries. Education according to the National Education System Law is a conscious and planned effort so that students can develop their potential in a learning atmosphere. Bahij and Santi (2017) argue that learning is a conscious effort to teach someone with various strategies to achieve existing goals. In this case, education has an important meaning in life, every human being has the right to education, including getting puberty education.

Puberty is a period that every child will go through, changes will occur from childhood to adulthood. At this time the child will experience physical maturity that takes place quickly, involving hormones and the body of each individual who experiences it. In line with the opinion of Dhin (2013) Puberty is a
period when children experience changes, both changes in their bodies, their thoughts to maturity of sexual function.

Puberty is a very important period in human life. Seotjiningsih (2014) stated that puberty is the most meaningful period in a child's life, because this period is a determinant of a child's future. During this period will experience various kinds of changes, such as changes in body appearance, changes in sexual attitudes and the opposite sex, it can be said that this phase is a crucial phase for children. Changes that occur will affect the attitudes and behavior of children, those who go through this disorder tend to be irritable, often complain and experience anxiety disorders. This is in line with Maspaitella's opinion as quoted by Haryani (2018) the occurrence of changes at puberty, making children easily feel anxious, afraid to face something and worry about their future.

Anxiety can occur due to a lack of understanding and knowledge of children about the changes that will occur during puberty. According to Gunarsa (2007) sometimes the changes experienced by children during puberty often cause anxiety. Anxiety is generally caused by the immaturity of psychosocial aspects in children who experience puberty.

One of the causes of anxiety that occurs is the lack of information conveyed by educators at school and parents at home. Countermen and Kirkwood (2013) stated that the reality that is happening in Indonesia today is that parents still consider the topic of puberty a taboo topic and should not be discussed with children. This can cause children to be reluctant to ask parents and teachers, so that the lack of information will result in the child finding out for himself the meaning of puberty, such as through magazines or porn sites. Of course this can damage the morale of the nation.

Efforts and actions must be taken immediately, educators and parents have an important role in providing serious education about puberty so that children do not fall into things that damage the nation's morals and norms. Islam is a religion that focuses on moral education and norms. Puberty learning is part of moral education, aqidah and sharia which are sourced from the Qur'an and As-Sunnah. In line with Al-Qur'an Surah An-Nur verses 30-31 which contains the obligation for girls and boys to keep their eyes and cover their genitals when they are experiencing puberty.

Based on the results of interviews conducted by researchers with seventeen grade VI students of MI Muhammadiyah calibeber, there are two students and two students who have experienced puberty, in fact they feel that this puberty period causes fear and confusion. In the results of interviews with sixth grade teachers, teachers feel awkward when they have to convey puberty material to girls, this is due to the lack of media in conveying lessons about puberty.

Educators play an important role in providing puberty education based on Islamic religious education in the school environment. MI Muhammadiyah Kalibeber is a school that is based on the Al-Quran and As-Sunnah in every lesson. The importance of providing puberty education based on the Qur'an and As-Sunnah can provide a better understanding of the boundaries between men and women and how women behave like a woman, and vice versa. One of the efforts that can be done is by providing appropriate and interesting media, such as comic media. Comic story books that contain illustrated pictures and stories can facilitate the entry of information to the child's level of understanding.

The results of previous research conducted by Andi Wardana (2018) said that the development of learning media products in the form of comics can be said to be very suitable for use as learning media based on the assessment of validators, students and educators. This means that the learning media developed is feasible to be tested with revisions according to the validator's suggestions. The same research was also conducted by Palasara Brahmani (2019) entitled Development of educational comics about the impact of dating on adolescents, based on the results of the assessment test, educational comics can be said to be very good and can be used as learning media.
This research is about the development of learning media KOMPAS (Komik Pubertas) based on the Qur'an and As-Sunnah. Learning media in the form of comics is expected to be interesting and easily understood by elementary school children and get a good response from the attractiveness of the product to be developed.

RESEARCH METHODS

This research method is a research and development method or Research and Development according to Sugiyono (2016: 407) Research and Development research methods are methods used to produce certain products, and test the effectiveness of these products.

Rowntree's development research model is a development research that goes through three stages of its development process. The first stage is planning, the second stage is writing, and the third stage is writing and editing, according to Bahij, Santi and Handayani (2021:10). After going through these three stages, the product will be developed through three trial stages, namely expert review (expert review), one-on-one assessment by students (face to face tryout), and field assessment (field tryout). According to Wijaya and Vidianti (2020:142) Rowntree development is a model designed to develop and produce learning products. The following are the reasons researchers use the Rowntree model development model: (1) It is procedural, (2) This model involves students, learning materials and media, (3) Involves experts in product development, and (4) Provides opportunities to conduct evaluations for displays the expected product results.

The following is a procedure or steps for the Rowntree model used in this study as shown in the following figure.

Figure 1

Rowntree Development Model

The trial subjects in the research on the development of the Qur'an and As-Sunnah-based KOMPAS (Komik Pubertas) learning media for elementary school students were students of MI Muhammadiyah Kalibeber. The subject of the field trial was taken from class VI students of MI Muhammadiyah Kalibeber, totaling 14 students.

Data collection techniques used in this study include:
1. Interview
   The researcher conducted interviews with the sixth grade teacher of MI Muhammadiyah Kalibeber and 2-3 students of the sixth grade of MI Muhammadiyah Kalibeber. Interviews were conducted to analyze the needs of students and face to face trials.
2. Questionnaire
   Questionnaires were used to collect data in the form of responses and suggestions of test subjects which were then analyzed and used for revision. There are two types of questionnaires that will be used, namely to measure the validity and response of the subject. The questionnaire was addressed to
linguists, material experts, media experts and trials to students.

The data analysis techniques in research and development include:
1. Validity Data Analysis

This analysis uses a questionnaire that is used to provide criticism, suggestions and improvements. The results of the analysis in the form of qualitative and quantitative data. Quantitative data was obtained from a Likert scale assessment questionnaire by the validator, while qualitative data was obtained from the assessment and suggestions of the validator. Likert scale scoring has the following criteria:
1: Very less
2: Less
3: Enough
4: OK
5: Very good
The score obtained by the validator will be processed into a percentage using the formula adopted from Akbar in Handayani (2021:85).
The use of the formula is as follows:
\[ P = \frac{\sum x}{\sum x_i} \times 100\% \]

Information:
P = percentage
\( \sum x \) = total number of responses in 1 item
\( \sum x_i \) = total number of highest answer scores in 1 item
100 = constant

After obtaining the percentage results, these numbers are classified into product validity level qualifications according to Akbar in Handayani (2021:86) as follows:

<table>
<thead>
<tr>
<th>Percentage (%)</th>
<th>Validity Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>85.01-100.00</td>
<td>Very valid</td>
</tr>
<tr>
<td>70.01-85.00</td>
<td>Valid</td>
</tr>
<tr>
<td>50.01-70.00</td>
<td>Not valid</td>
</tr>
<tr>
<td>01.00-50.00</td>
<td>Invalid</td>
</tr>
</tbody>
</table>

2. Student Response Analysis Techniques
The stage of analyzing student responses that will be used by researchers is the Guttman scale. The Guttman scale only has two intervals, which means that for yes answers it is given a score of 1 while for answers not given a score of 0. According to Riduwan (2015: 15) the data that has been collected and get a score can be done in the final calculation or get the average value converted into a percentage based on formula reference with the percentage of validity:
\[ \frac{\sum \text{jumlah skor}}{\text{jumlah skor maksimal}} \times 100\% \]

The results of the calculations that have been obtained from the results of the student response questionnaires are interpreted in categories based on those quoted by Satriani (2020: 58):

<table>
<thead>
<tr>
<th>Rating percentage</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>67%-100%</td>
<td>Tall</td>
</tr>
<tr>
<td>34%-66%</td>
<td>Currently</td>
</tr>
<tr>
<td>0%-33%</td>
<td>Low</td>
</tr>
</tbody>
</table>

RESULTS AND DISCUSSION
A. Development Stage
1. Planning Stage
   1) Student Analysis
The researcher analyzed the characteristics of the sixth grade students of MI Muhammadiyah Kalibeber by adjusting the learning context. The analysis is carried out to provide material limits that will be accepted by students. To strengthen the results of observations, researchers obtained information through observations and interviews with students and classroom teachers. The results of observations and interviews of researchers obtained information that the age of students in class VI was at the age of 11-12 years. There are 17 students, 4 of whom have experienced puberty. 2 girls and 2 boys. Puberty learning has not been taught in class because there is no appropriate media in conveying the material. Educators have
difficulty in conveying puberty material in class.

2) **Formulating Learning Objectives**
   General instructional objectives (TIU) and specific instructional objectives (ICT) by adjusting the basic competencies and indicators of puberty material, in the delivery of puberty material for elementary school children.
   The specific objectives of this research are to provide knowledge of puberty in an interesting and easy-to-understand way for students and to help facilitate teachers in delivering puberty material.

3) **Drawing up a Media Outline**
   The outline of the contents of the book *Kompas* (Komik Pubertas) based on the Qur'an and As-Sunnah is based on general objectives, specific objectives, and the results of discussions with material experts.

4) **Determining Media**
   The learning media that will be developed by the researcher is in the form of print media in the form of an A5 sized book.

5) **Planning for Learning Support**
   The learning supports provided in the book KOMPAS (Komik Pubertas) based on the Qur'an and As-Sunnah include: (1) Providing information about puberty problems that are often experienced by children and the solutions that must be done. (2) Provide interesting reading based on the Qur'an and As-Sunnah as a guide for Muslims.

6) **Considering Existing Learning Media**
   The development of learning media refers to class VI thematic books. The developer developed a thematic book with theme 6 “Towards a Prosperous Society” by attracting the discussion of puberty based on the Qur'an and As-Sunnah in the learning

2. **Author Preparation Stage**

1) **Considering Sources and Barriers**
   The developer plans the production time and production cost budget and then considers the constraints that may occur

2) **Sort Writing Ideas**
   Based on the outline of the comic book content that has been described, the developer began to compose a series of comic stories, create storylines and adjust the contents of comic stories with indicators of puberty material. The developer also examines the sources of writing ideas from the results of discussions that have been carried out with the supervisor.

3) **Developing Activities and Feedback**
   In order to maximize the comic learning process, activities and feedback are provided that can maximize the learning process. These activities can be in the form of evaluations, exercises according to the topic of discussion.

4) **Define Examples-Related examples**
   Developers determine related examples by adjusting the topic of discussion. Related examples can be taken from cases surrounding puberty commonly experienced by students, then the developer visualizes the story by making comics.

5) **Defining Image or Graphic**
   The graphics that will be used adjust to the characteristics of the learning media that will be developed. The developer developed the KOMPAS (Komik Pubertas) book based on the Qur'an and As-Sunnah which contains animated picture panels to convey material and is used to attract the interest and attention of students. Animated images were created using the Medibang application and the stylus pen applicator. The following are animated pictures of some of the characters in the comic book, namely Faqih, Kiya and Bu Guru.
Figure 2
Animated Characters

6) Determining the Equipment Needed
Developers need some equipment that will be used in product development, the following table of equipment will be used:

Table 3
Tools Required

<table>
<thead>
<tr>
<th>No</th>
<th>Tool's name</th>
<th>Specification</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Laptop</td>
<td>Processor Intel Core i3</td>
<td>1 Unit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RAM 4GB</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>500GB HDD</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Smartphone</td>
<td>Android Gen Nine</td>
<td>1 unit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RAM 4GB</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>64GB internal memory</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Operating system</td>
<td>Windows 10 Pro</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Layout</td>
<td>CorelDRAW x7</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Image/Graphic Editing</td>
<td>Medibang</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Canvas Pro</td>
<td>package</td>
</tr>
<tr>
<td>6</td>
<td>Cover paper</td>
<td>Ivory 260gr</td>
<td>2 sheets</td>
</tr>
<tr>
<td>7</td>
<td>Filling paper</td>
<td>Art Paper 150gr</td>
<td>56 pages</td>
</tr>
<tr>
<td>8</td>
<td>stylus pen</td>
<td>Jufosien</td>
<td>1 piece</td>
</tr>
</tbody>
</table>

7) Determining Physical Form
The following specifications for the physical form of comic books are described in the following table:

Table 4. Physical Form of Books

<table>
<thead>
<tr>
<th>Book Size</th>
<th>A5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper</td>
<td>Cover : Ivory 260gr</td>
</tr>
<tr>
<td>Contents</td>
<td>Art Paper 150gr</td>
</tr>
<tr>
<td>Volume</td>
<td>Hardcover</td>
</tr>
<tr>
<td>Number of pages</td>
<td>56 Pages</td>
</tr>
<tr>
<td>Color</td>
<td>Full Color</td>
</tr>
<tr>
<td>Font type</td>
<td>Cover : Fail, Game on</td>
</tr>
<tr>
<td>Text Size</td>
<td>12-50</td>
</tr>
</tbody>
</table>

3. Writing and Editing Stage

1) Draft
At this stage the developer begins to make an initial draft. The developer makes a draft based on the outline of the comic book content that has been previously designed, the initial draft in this comic is to compose a storyboard of comic content.
2) Completing and Editing Drafts

The next stage is the developer completes and edits the draft, by compiling the comic illustration graphics that have been created and combined with the material file sheet and neatly arranging the layout. Here are the results of making a comic book with the help of Canva Pro, Medibang and CorelDRAW X7. The following is a draft of the Kompas (Komik Pubertas) Learning Media based on the Qur'an and As-Sunnah.
accordance with the terms and conditions. The trial used the Rowntree model with three product trials, namely, expert reviews, one-on-one assessments by students (face to face tryouts), and field trials (field tryouts).

B. Evaluation and Revision Stage

1) Trial of Experts (Expert Review)
This trial was carried out by three experts, a linguist, a material expert, and a media expert. The results of the assessment calculations from the validators can be seen in the table below.

<table>
<thead>
<tr>
<th>No</th>
<th>Validator/Expert</th>
<th>Score (%)</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Media Validators</td>
<td>43</td>
<td>86%</td>
</tr>
<tr>
<td>2</td>
<td>Material Validator</td>
<td>46</td>
<td>92%</td>
</tr>
<tr>
<td>3</td>
<td>Language Validator</td>
<td>49</td>
<td>98%</td>
</tr>
</tbody>
</table>

Average 46 92% Very Valid

2) One-on-one Assessment By Students (Face to Face Tryouts Learners)
The Face to Face Tryout assessment was conducted by interviewing 3 Class VI students of MI Muhammadiyah Kalibeber with the initials A, F, and M. Based on the results of interviews conducted by researchers in the face to face tryouts learner assessment, 3 respondents felt that the appearance, pictures, writing, and comic language were easy to understand overall.

3) Field Assessment (Field Tryout)
The field assessment was carried out to record student responses from the attractiveness of the KOMPAS comic. The subject of the field assessment was 14 students of class VI MI Muhammadiyah Kalibeber. The average percentage of 100% is in high qualification.
CONCLUSION

Based on the research and development that has been described, it can be concluded as follows:

1. The resulting product is a learning media KOMPAS (Komik Pubertas) based on the Qur'an and As-Sunnah for elementary school students in the form of printed books. This book was developed using the Rowntree model. The model has three stages of development and three stages of evaluation, the development stages include planning, writing and editing. The evaluation stage includes expert review (expert review), one-on-one assessment by students (face to face tryout), and field assessment (field tryout).

2. The results of the assessment show that the KOMPAS (Komik Pubertas) learning media based on the Qur'an and As-Sunnah is valid for use and gets a high response from students towards the attractiveness of comics. Product validity is seen from the results of the validity and student responses from the results of interview assessments and questionnaires which show the validity of linguists getting a percentage of 98%, the validity of material experts getting a percentage of 92%, the validity of media experts getting a percentage of 86%, Assessment of student responses to The interest of comics in the field tryout gets a percentage of 100%.

BIBLIOGRAPHY


