Teaching Materials and Learning Media for Android-Based Receptive Language Skills with Smart Apps Creator Application Technology for Indonesian Language and Literature Education Students

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ABSTRACT

The low ability of students in receptive language is because, in the online learning process, students tend to use gadgets more to play than to study. This research aims to develop teaching materials and learning media for Android-based receptive language skills using smart apps creator application technology for Indonesian Language and Literature education students. This research belongs to the type of development research which was developed using the 4D model. The subjects involved in this research were learning media experts and Indonesian language and literature study program students. Data collection in the study was carried out using trial methods, tests, observations, questionnaires, and validation, with research instruments in the form of media validation sheets and tests of receptive language skills. The data obtained in the study were then analyzed using qualitative analysis techniques and processed through the stages of data reduction, data presentation, and verification. The data analysis showed that the media validity test results were 83, which was feasible. The average student attitude observation results were 3.74, which was in the very valid category, and the product implementation results showed 98.7% of students agreed with the display presentation, ease of understanding of the material, and the attractiveness of the design used. Based on these results, teaching materials and learning media for Android-based receptive language skills with the Smart Apps Creator application technology are in the valid category and feasible to develop in the learning process.

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1. INTRODUCTION

Language is an ability possessed by individuals to communicate with other individuals (Khosibah & Dimyati, 2021; Windarsh & Nurunnisa, 2022). Language skills can be divided into two, namely receptive language skills and expressive language skills. Mastery of receptive and expressive language skills is one of the language skills that children must master. This is because receptive language skills are related to the child’s ability to distinguish meaningful and meaningless sounds through listening and reading processes (Gandana & Fauziah, 2023; Husna & Eliza, 2021; Romdon & Wiwikl, 2023). While the ability to read expressively is the ability of children to express their thoughts through speaking and writing (Fitriani et al., 2019). In receptive language skills listening is a process that includes listening to the sounds of language, identifying, interpreting, assessing, and reacting to the meanings contained therein (Divina et al., 2022; Hasiana, 2020).

In cognitive learning theory, the listening process is information processing through attention, perception, and memory (Hanafi et al., 2022; Soerraya & Sriwulandari, 2019). In addition, listening is learning closely related to hearing, so the ideal teaching material is audio, audio-visual, or multimedia (Pujiatna et al., 2020; Resnani, 2019). Receptive language skills are also shown by students’ ability to read a text or information provided (Reznani et al., 2021). In simple terms, reading is absorbing and processing information from written media. In addition, reading skills also mean the ability to perform, capture, and understand a text, not only reciting written words but also involving visual, thinking, psycholinguistic, and metacognitive activities (Hakim, 2021; Met & Mangiri, 2023).

Reading ability is divided into several parts, including literal reading ability, critical reading ability, and creative reading ability (Sariyah & Puspita, 2022; Vina et al., 2020). The ability to read literal reading is the ability of the reader to recognize and capture the contents of the reading, which are stated explicitly (explicitly). It means the reader only captures information printed literally (obviously) in the reading (Sulikjah et al., 2020; Sulistianingsih, 2018). Critical reading ability is the ability of readers to process reading material critically and find the overall meaning of reading material, both explicit and implied (Amalia, 2019). While the ability to read creatively is the ability of the reader to capture the explicit meaning (reading the lines), the meaning between the lines (reading between the lines), the meaning behind the lines (reading beyond the lines), and creatively able to apply the results of reading for daily needs (Andina, 2019).

Individuals who can master reading well will increase their insight and improve their ability to interact with others (Dafit et al., 2020; Sholeh et al., 2021). With the Covid-19 pandemic, children’s receptive language skills tend to decrease. It is because in the online learning process, children use more gadgets to play games than to study, so children’s interest in reading tends to be low (Alawiyah et al., 2022; Wahyuni, 2022).

One of the efforts that the teacher can make to overcome these problems is to use teaching materials and learning media to improve children’s receptive language skills. Media and learning materials have an important role in achieving learning outcomes, especially in the Covid-19 Pandemic, which demands learning to be done online. Therefore, the existence of digital-based teaching materials and learning media is a demand. Teaching materials are all used to assist teachers/instructors in teaching and learning (Reznani et al., 2021; Sariyah & Puspita, 2022). Teaching materials are also interpreted as all materials (both information, tools, and text) that are arranged systematically, which display a complete figure of the competencies that will be mastered by students and used in the learning process with the aim of planning and reviewing the implementation of learning (Gustiawati et al., 2020; Pujiatna et al., 2020; Septinirum et al., 2021). Using teaching materials will positively impact students, especially in knowledge, skills, and attitudes (Aziza, 2021; Hidayat et al., 2021). In practice, the development of teaching materials must be done on time. However, it must pay attention to the principles of easy-to-understand, difficult, concrete-to-understand abstract, repetition to strengthen understanding, provide positive feedback, provide motivation to learn, be able to achieve goals, know results that have been achieved (Andriyani & Saputra, 2020; Sari et al., 2021).

In addition to teaching materials, improving receptive language skills can be done using media to support learning. It is because, in the teaching and learning process, the media can bridge the material presented by the teacher so that students can easily understand it (Alam & Lestari, 2019; Sofi & Praheo, 2023). The use of media will be able to make students happier in participating in learning activities, making it easier for teachers to carry out listening learning and can be used for independent learning, which provides feedback after students carry out independent learning activities (Arfa et al., 2022; Damayanti & Watini, 2022). Technological developments, such as when digital media, are very suitable to assist student learning processes because digital media is easier to access anywhere and anytime and more practical. Several studies have previously revealed that using digital-based flashcard media on animal themes can improve students’ receptive language skills (Gandana & Fauziah, 2023). The results of other studies revealed that digital story audio media can significantly improve children’s receptive language skills (Windarsih & Nurunnisa, 2022). Based on some of these research results, digital media effectively develops students’ receptive language skills. In previous studies, no studies specifically discussed the development of...
of teaching materials and learning media for Android-based receptive language skills with smart apps creator application technology for students of Indonesian Language and Literature education. So this research is focused on this study to develop teaching materials and learning media for Android-based receptive language skills with smart apps creator application technology for Indonesian Language and Literature education students.

2. METHOD

This research belongs to the type of development research, which is developed through a 4D model with the stages of defining, designing, developing, and disseminating. The defined stage in media development is carried out by studying literature and analyzing competencies and materials according to the curriculum, images, games, videos, animations, and the formats used. The design stage involves planning and designing teaching materials and learning media products based on Android with the Smart Apps Creator application and the manufacturing process. The development stage is carried out by developing the media according to the design made, conducting limited and wide trials, and validating and revising according to the trial results and input from the validator as well as the dissemination stage, which was carried out by implementing teaching materials and learning media based on Android with the Smart Apps Creator application for students of the Indonesian Language and Literature Education Study Program, FKIP Unpas.

The subjects involved in this research were the Indonesian Language and Literature Education Study Program FKIP Unpas. The study collected data using trial methods, tests, observations, questionnaires, and validation. The trial was used to experiment with Android-based teaching materials and learning media with the Smart Apps Creator application used in Listening Learning Theory and Practice lectures. Tests are used to see the development of students’ understanding of the material presented in each teaching material and learning media developed. Questionnaires test students’ responses using Android-based teaching materials and media with the developed Smart Apps Creator application. The data obtained in this study are grouped into qualitative data and quantitative data. Qualitative data were obtained by validating the feasibility of developing teaching materials and media, the results of attitude observations, and questionnaires. Qualitative data analysis is processed through data reduction, presentation, and verification. Quantitative data was obtained through the validation results of media experts and tests given to students at each meeting.

3. RESULT AND DISCUSSION

Result

The media development process is based on the 4D model development stage. The results of each stage of development are as follows: the first stage, namely the define stage, is carried out by analyzing student learning needs and conducting an initial study of the media being developed. The needs analysis results show that students need media that can help improve their receptive language skills during the online learning process, so it was decided that the media to be developed would be in the form of Android-based digital media to make it more accessible to students. The second stage is the media design stage, which uses the smart apps creator application. The media design process begins with downloading and installing the SAC application. The SAC is a learning media application that can make teaching materials more interactive. To create teaching materials or media in the SAC application, the first thing that must be done is to install the SAC application on a laptop or computer that meets the standards. The application that has been installed can then include various teaching materials needed. An overview of the SAC application and the media design process can be seen in Figure 1, Figure 2, Figure 3, and Figure 4.

![Figure 1. Display of the SAC Application Web Page](image1)

![Figure 2. Display of the SAC Workspace Area](image2)
The third stage is the media development stage. The media that has been designed is then developed based on the existing design. The results of media development can be seen in Figure 5, Figure 6, Figure 7, and Figure 8.

The media that has been developed is then tested for validity by learning material experts. The validity test by material experts can be seen in Table 1.

Table 1. Results of Validity Tests by Material Experts

<table>
<thead>
<tr>
<th>No.</th>
<th>Aspect</th>
<th>Indicator</th>
<th>Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Media Engineering</td>
<td>Ease of Materials</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ease of Storage</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ease of Use</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The Right Choice Of Development Tools</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clarity of Instructions for the Use of Media</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Media Packaging</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Media Durability Level</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Visual Communication</td>
<td>Communication (Easy to Understand, Kind, True, and Effective Language)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Display Simplicity</td>
<td>5</td>
</tr>
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</table>
The valid media is then tested on students in 11 meetings. The results of the trial phase were as follows: The results of the second meeting trial showed that the distribution of scores obtained from the first trial using the SAC application, namely a score of 50 was obtained by 8 students, a value of 60 was obtained by 25 students, a value of 70 was obtained by 8 students, a value of 80 was obtained by 9 students, a score of 90 was obtained by 11 students, and 11 students obtained a value of 100. Based on the data above, the average value obtained is 73.19. Suppose converted on a rating scale of 4: 2.93 or in the GOOD category. It shows that the use of the SAC application in the learning study material "Listening as a Language Skill" can be understood well by students. The test results for the fourth meeting show that the distribution of scores obtained from the second trial using the SAC application, namely, a score of 50 was obtained by 7 students, a value of 60 was obtained by 15 students, a value of 70 was obtained by 11 students, a value of 80 was obtained by 15 students, a value of 90 was obtained by 13 students, and 11 students obtained a value of 100. Based on the data above, the average value obtained is 75.97. Suppose converted on a rating scale of 4, namely: 3.05 or in the GOOD category. It shows that the use of the SAC application in the study material "Various Situations of Involving Listening" can be understood well by students.

The results of the fifth Meeting Trial show that the distribution of scores obtained from the third trial using the SAC application, namely, a score of 50 was obtained by 9 students, a value of 60 was obtained by 15 students, a value of 70 was obtained by 8 students, a value of 80 was obtained by 9 students, a value of 90 was obtained by 9 students, and 22 students obtained a score of 100. Based on the data above, the average value obtained is 78.33. Suppose converted on a rating scale of 4: 3.13 or in the GOOD category. It shows that the use of the SAC application in the learning study material "Listening Atmosphere" can already be understood well by students. The results of the 7th Meeting Trial show that the distribution of scores obtained from the fourth trial using the SAC application is a score of 50 obtained by 2 students, a value of 60 obtained by 11 students, a value of 70 obtained by 16 students, a value of 80 obtained by 16 students, a value of 90 obtained by 16 students, and a score of 100 was obtained by 11 students. Based on the data above, the average value obtained is 79.17. Suppose converted on a rating scale of 4: 3.17 or in the GOOD category. It shows that the use of the SAC application in the learning study material "Effective Listening Efforts" can be well understood by students.

The results of the 9th Meeting Tryout showed that the distribution of scores obtained from the fifth tryout using the SAC application, namely, a score of 50 was obtained by 1 student, a value of 60 was obtained by 10 students, a value of 70 was obtained by 10 students, a value of 80 was obtained by 21 students, a value of 90 was obtained by 17 students, and 13 students obtained a score of 100. Based on the data above, the average value obtained is 81.39. Suppose converted on a rating scale of 4: 3.26 or in the GOOD category. It shows that the use of the SAC application in the learning study material "Various Situations of Involving Listening" can be well understood by students. Moreover, the results of the Eleventh Meeting Trial show that the distribution of scores obtained from the sixth trial using the SAC application, namely a score of 50 was obtained by 2 students, a value of 60 was obtained by 11 students, a value of 70 was obtained by 18 students, a value of 80 was obtained by 8 students, a value of 90 was obtained by 15 students, and 18 students obtained a score of 100. Based on the data above, the average value obtained is 80.69. Suppose converted on a rating scale of 4: 3.23 or in the GOOD category. It shows that the use of the SAC application in the learning study material "Selecting Listening Materials" can be understood well by students. In addition to the scores obtained through test results, researchers observed student attitudes while using Android-based teaching materials and media with the Smart Apps Creator application. The results of observing student attitudes using Android-based teaching materials and media with the Smart Apps Creator application can be seen in Table 2.
Table 2. Observation Results of Student Attitudes

<table>
<thead>
<tr>
<th>No</th>
<th>Aspect</th>
<th>Indicator</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Active in Learning</td>
<td>Carry out learning activities through discussion forums that are carried out asynchronously.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Active</td>
<td>a. Active Carry out learning activities through discussion forums that are carried out asynchronously.</td>
<td>38.89%</td>
</tr>
<tr>
<td></td>
<td>b. Very active</td>
<td>b. Very active Carry out learning activities through discussion forums that are carried out asynchronously.</td>
<td>61.11%</td>
</tr>
<tr>
<td>2</td>
<td>Collaborative Ability</td>
<td>Collaborate with friends in doing assignments and solving problems in groups.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Active</td>
<td>a. Active Collaborate with friends in doing assignments and solving problems in groups.</td>
<td>20.89%</td>
</tr>
<tr>
<td></td>
<td>b. Very active</td>
<td>b. Very active Collaborate with friends in doing assignments and solving problems in groups.</td>
<td>79.19%</td>
</tr>
<tr>
<td>3</td>
<td>Development of Critical Thinking Skills</td>
<td>Ways and styles of expressing opinions, as well as views on the way of solving problems, presented in discussion forums</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Good</td>
<td>a. Good Ways and styles of expressing opinions, as well as views on the way of solving problems, presented in discussion forums</td>
<td>19.44%</td>
</tr>
<tr>
<td></td>
<td>b. Very good</td>
<td>b. Very good Ways and styles of expressing opinions, as well as views on the way of solving problems, presented in discussion forums</td>
<td>80.56%</td>
</tr>
<tr>
<td>4</td>
<td>Ability to Communicate During Learning</td>
<td>Activeness in giving opinions, responding to problems, and conveying critical ideas</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Good</td>
<td>a. Good Activeness in giving opinions, responding to problems, and conveying critical ideas</td>
<td>26.39%</td>
</tr>
<tr>
<td></td>
<td>b. Very good</td>
<td>b. Very good Activeness in giving opinions, responding to problems, and conveying critical ideas</td>
<td>73.61%</td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td>Average 3.74 (very good)</td>
<td></td>
</tr>
</tbody>
</table>

Based on the data in Table 2, the overall attitude rating gets an average value of 3.74. This value indicates that Android-based teaching materials and media with the Smart Apps Creator application can improve students’ activeness, collaboration, critical thinking, and communication skills. The fourth stage is the implementation stage of learning media products which shows the results that student responses and responses to Android-based learning media with Smart Apps Creator (SAC) application technology with 23 questions, only 1.3% of students answered disagreeing with appearance, convenience, and the attractiveness of these teaching materials and media. In contrast, as many as 98.7% agreed with the presentation's appearance, the ease of understanding the material, and the attractiveness of the designs used. The data from the study of student responses shows that teaching materials and learning media based on Android with the Smart Apps Creator application are suitable for use because they have a good presentation appearance, easy understanding of the material, and attractive design.

Discussion

Based on the data analysis and discussion results, several findings were obtained in this study, including the first finding, indicating that the developed media obtained a total score of 83, which was in the very feasible category. These results indicate that teaching materials and learning media for Android-based receptive language skills using the smart apps creator application are very suitable for learning. The smart apps creator application is an application that can help teachers, students, parents, and schools create interactive multimedia mobile applications easily and quickly (Arnandi et al., 2022; Sutejo & Yogi, 2021). This application is very much needed in online learning because it can be used anywhere and anytime and is easily accessible by students (Juniarti & Ramadan, 2021; Khasanah & Rusman, 2021). The second finding shows that the results of trying out teaching materials and learning media show that an average score is obtained, namely 78.17, or on a rating scale of 4, namely 3.13, so it can be said that the results of the SAC application trials in theory lectures and listening learning practices fall into the category good. These results are from teaching materials and learning media to assist online and offline student learning processes.

During the spread of the Covid-19 pandemic virus, the use of media and teaching materials is needed to support the success of the learning process. Teaching materials are all used to assist teachers/instructors in teaching and learning (Andriyani & Saputra, 2020; Sari et al., 2021). The use of teaching materials will be able to have a positive impact on students, especially in the realm of knowledge, skills, and attitudes, so that in the development process, materials cannot be developed haphazardly but must pay attention to the principles of convenience, practicality, and suitability with the characteristics and needs of students (Gustiawati et al., 2020; Fujiatna et al., 2020; Septiningrum et al., 2021). In addition to teaching materials, receptive language skills can be improved by using media to support the learning process (Aziza, 2021; Hidayat et al., 2021). It is because, in the teaching and learning process, the media can bridge the material the teacher conveys so that students can easily understand it (Alam & Lestari, 2019; Sofi & Praheto, 2023). The use of media will be able to make students happier in participating in learning activities, making it easier for teachers to carry out listening learning and can be used for independent learning, which provides feedback after students carry out independent learning activities (Arfa et al., 2022; Damayanti & Watini, 2022).
The third finding relates to the responses shown by students to the developed media, where as many as 98.7% answered that they agreed with the presentation's appearance, the ease of understanding the material, and the attractiveness of the designs used. The data from the study of student responses shows that teaching materials and learning media based on Android with the Smart Apps Creator application are suitable for use because they have a good presentation appearance, easy understanding of the material, and attractive design. The appearance of a media is related to the image design, color, and type of writing used. An attractive appearance and design in a media will increase student interest in studying the media presented (Gandana & Fauziah, 2023; Husna & Eliza, 2021; Romdon & Wiwik, 2023). The results obtained in this study align with previous research results, which also revealed that using digital-based flashcard media on animal themes can improve children's receptive language skills (Gandana & Fauziah, 2023). The results of other studies revealed that digital story audio media can significantly improve children's receptive language skills (Windarsih & Nurunnisa, 2022). Based on some of the results of these studies, digital media is effectively used to develop students' receptive language skills.

4. CONCLUSION

Based on the results of data analysis and discussion, it can be concluded that the teaching materials and learning media for Android-based receptive language skills with the Smart Apps Creator application technology are in the valid category and are very feasible to be developed in the learning process because they can be an alternative media for lectures on Listening Skills to improving the quality of the process and results of lectures in a systematic, interactive, effective, interesting and fun way.

5. REFERENCES


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Rendy Triandy / Teaching Materials and Learning Media for Android-Based Receptive Language Skills with Smart Apps Creator Application Technology for Indonesian Language and Literature Education Students


