

# Developing Android Based *Beksan* Application and Containing HOTS Elementary School Dance Arts Materials

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## ABSTRACT

This study aims to examine the directive speech acts and moral value education discovered in the dialogue of the *Rentang Kisah* novel by employing a descriptive qualitative method. The novel serves as the subject of study, while the objects are the directive speech acts and the moral value education contained in the dialogue. The sentences within the dialogue function as the data source for this study. The data collecting approach involved listening and note-taking. The extralinguistic equivalent approach was applied to analyze the data. Dialogue analysis of the *Rentang Kisah* book by Gita Savitri revealed five distinct types of directive speech acts in three fields. There were three forms of command speech acts, two in health and one in education. Three distinct forms of speech acts of invitation were discovered, one in health and two in the religious sector. There were ten request speech acts, six in health, two in education, and the rest were in religion. There were nine speech acts of advice, five in education, one in health, and three others in the field of religion. Regarding critical speech acts, 32 forms were discovered, 16 in education, three in health, and 13 in the religious field. These data indicate that the novel has 57 directive speech acts. Moreover, both good and bad moral value education was also acquired. The good values included caring for parents, surrendering to God, working hard, loving, and believing in God. Conversely, the negative values covered badmouthing parents and stubbornness.

**Keywords:** directive speech acts, novels, *Rentang Kisah*, moral values

## 1. INTRODUCTION

The education curriculum system in Indonesia has changed along with the changing of world paradigm of education. 21st century education requires students to have various literacy skills. However, it turns out that the quality of education in Indonesia has not increased when viewed from the financing side since 2013, the education budget in accordance with the mandate of the law is 20% of the State Revenue and Expenditure Budget (APBN) in 2017. One of the types of evidence that can be obtained is the ranking of *Programme for International Students Assessment* (PISA) made by *The Organisation for Economic Co-operation and Development* (OECD) in 2019, stating that education in Indonesia ranks below other developed countries in ASEAN [1]. Indonesia's low score in terms of reading is influenced by the low level of literacy skill of the students. In this ranking, Indonesia gets an average score of 371 in terms of reading. This score is far below

the average score determined by the OECD, which is 487. This is in line with the study results by *United Nations Educational, Scientific, and Cultural Organization* (UNESCO) in 2016, which stated that 0.001% or 1 in 1000 people in Indonesia are interested in reading. National Library data in 2017 shows that the reading frequency of Indonesians who have an interest in reading in a week is only three to four times with the average number of books read is five to nine books per year [2]

### 1.1. Cultural Literacy

As the implementation of the 2013 Curriculum in elementary schools with the concept of integrative thematic learning, ranging from low to high grade [3]. In the process, this learning integrates several competencies from various lesson content into a theme. This becomes an effort to improve students' *softskill* and *hardskill* such as cultural literacy skills. Cultural

literacy skill is defined as the ability possessed by someone who is able to understand culture as a form of identity of a nation [4]. The integration into the current educational curriculum is an effort to improve cultural literacy skill. Concur on [5] that there are seven basic literacies that must be integrated into the education curriculum in Indonesia, namely scientific, numeric, literacy, cultural, digital, citizenship, and financial literacy. In association to this, Kim Polistina from the University of Brighton, stated four skills that must be possessed in order to improve cultural literacy skill which include cross-cultural awareness, local cultural awareness, critical thinking skills, and the ability to overcome problems so that they become agents of change [6].

### *1.1.1. SBdP Lesson*

Cultural Arts and Crafts (SBdP) is one of the important content that is integrated into thematic learning in elementary schools. In accordance with the 1945 Constitution Article 32 Paragraph 1 which reads "The nation advances Indonesian national culture in the midst of world civilization by guaranteeing the freedom of the people to maintain and develop their cultural values". This shows the importance of educators teaching SBdP material to elementary school students. One of the materials contained in the SBdP lesson is The Dance Arts. According to Indonesian Dictionary (KBBI), dance is the movements produced by the limbs in accordance with the accompaniment of sounds. Dance as an activity that is able to create a meaningful and emotional atmosphere when presented creatively [7]. In conclusion, the dance arts is the appearance of body movements that are assembled and demonstrated as a medium that is able to provide a pleasant experience for the audience through expressive presentations.

### *1.2. Higher Order Thinking Skills (HOTS)*

Besides being expected to have cultural literacy skills, students are also expected to have HOTS abilities. This ability means that students are not only able to remember the material. However, students are able to restate the material learned after previously carrying out a critical thinking process [5]. Therefore, educators should make evaluation questions that are able to measure students' ability to transfer one concept to another, by looking for the relationships of various information obtained so that the problems encountered can be solved after going through a critical thinking process. Law Number 20 of 2003 Article 3 confirms that one of the functions and objectives of national education is to develop the potential of students to become beings who believe and fear of God Almighty, have noble character, healthy, knowledgeable, capable, creative, independent, and become democratic and

responsible citizens. High-grade students are also expected to have *Higher Order Thinking Skills* (HOTS) [8]. If students reach a higher stage in the process of thinking skills, students are able to solve the problems they face [9]. This opinion is supported [10], explaining that problems in life are complex and complicated. *Critical thinking and problem solving* are part of the demands of 21st century education [11].

The effort of educators to train HOTS abilities is to make evaluation questions based on HOTS indicators which are arranged according to operational verbs (KKO) in Anderson's revised *Taxonomy of Learning* [12], which at the higher-order thinking stage includes the verb analyze (*analyze*) which is in the phase of C4, evaluate (*evaluate*) is in phase C5, and create (*create*) is in phase C6. This is in line with the opinion [10] which states that students can solve the problems they face if they are able to understand, analyze, categorize, manipulate, create new creative ways, and apply appropriate solutions.

### *1.3. Android-Based Apps*

Educators should optimize their knowledge and skills, in order to prepare students as the golden generation born in the digital era [13]. Educators play an important role as learning agents at the primary and secondary education levels as well as early childhood education [14]. The competencies possessed by educators are factors that can affect student achievement as a benchmark for improving the quality of education in the future [15]. This can be done by developing media innovations in the form of applications that can be installed on *Android*-based devices. Application that is designed for *mobile platform* is also called *mobile application* [16].

The development of application media that can be installed on *Android*-based devices is expected to be useful when used in the learning process involving students in elementary schools with an average age of 7-12 years. At this age students are entering the concrete stage. Educators should be able to innovate in developing appropriate learning media. Teaching and learning activities will be successful if educators have the quality and ability to pack a fun learning process [18]. Government Regulation No. 19 of 2005 Article 19 Paragraph 3 regarding learning planning, including learning tools that actively determine learning media according to student needs. If students are proactively involved in learning activities, then students are able to explore the material that has been presented independently. Students are expected to be able to master the material well which at the same time train their critical thinking skills [19]. Implementation of SBdP learning in the 2013 Curriculum which emphasizes students to be actively involved in the learning process. It is intended that students gain direct

learning experiences, so as to create meaningful learning activities. Students do not just memorize the given material [10], but students are trained to think critically.

The development of learning media products in elementary schools vary. However, there are no *android*-based application media products and evaluation questions containing HOTS related to SBdP material, especially Dance Arts in Elementary School. This is proved by the results of the needs analysis which shows that 14 educators have never used learning media in the form of an *android*-based application to learn to dance and 1 educator has used it. 12 educators experienced difficulties in carrying out SBdP learning, especially Dance Arts and 3 educators did not experience difficulties. 14 educators need *android*-based learning media related to Dance Arts material and 1 educator does not need it. It is known that 14 educators "agree" if learning media is available in the form of an *android*-based application to support the online learning process, especially during the covid-19 pandemic and 1 educator "disagrees". The conclusion is that educators need learning media in the form of applications that can be installed on *android*-based devices to support the implementation of the learning process related to SBdP material, particularly Dance Arts, especially during the COVID-19 pandemic.

Based on the description above, the researcher developed a media application called *Beksan*. This media is in the form of an application that can be installed on an *android*-based mobile device. The existence of this media innovation is an implementation of the progress of science and technology in the current era of education. The material developed in this application is Dance Arts material in the SBdP lesson content in elementary schools in accordance with the Content Standards and materials in the 2013 Curriculum. It is hoped that the online learning process during the covid-19 pandemic can be dynamic, creative, and not boring for students, as well as can be done without knowing the limitations of space and time.

## 2. METHOD

The type of research used by the researcher is research and development (RnD) with the Borg & Gall development model [20] which has been modified into six stages, namely *research and information collecting, planning, develop preliminary form of product, preliminary field testing, main product revision, dan main field testing*. This type of research aims to help researchers find, develop, and validate a product that has been produced based on needs assessment activities [21].

This research involved 15 educators at the Elementary School level in Karanganyar and Sukoharjo districts in the needs analysis stage. In the product validation assessment stage, involving two media design experts, two linguists, and two materials experts were involved. In a limited public trial, it involved 20 educators and 50 high school students (IV and V) Elementary School in Karanganyar and Sukoharjo districts. The criteria for the subjects in this study were educators and high school students (IV and V) Elementary School who had implemented the 2013 Curriculum and carried out the learning process related to SBdP materials, especially Dance Arts during the COVID-19 pandemic.

The data collection technique used by the researcher in this research is a questionnaire instrument that is packaged in the form of a Google Form. The questionnaire instrument was given to the experts to determine the feasibility validation assessment of the prototype of the developed *Beksan* application media product, while the questionnaire instrument was given to the user to determine the validation assessment to support the use of the *Beksan* application media product in the learning process. In addition, researchers also set guidelines in determining the score of the questionnaire instrument validation assessment given to experts and users. The data from the assessment which was originally in the form of qualitative was converted to quantitative by using a Likert scale.

The data analysis technique used in this research is descriptive quantitative and the content validity of the Aiken's V formula using Microsoft Office Excel 2007. At the trial stage, the researcher calculates the average score by dividing the overall score by the number of validators. Next, convert the results of the average score into qualitative data based on the quality assessment criteria table [22]. In the limited public test stage, the researcher calculated the average score of the coefficient V (content-validity coefficient) with the Aiken's V formula.

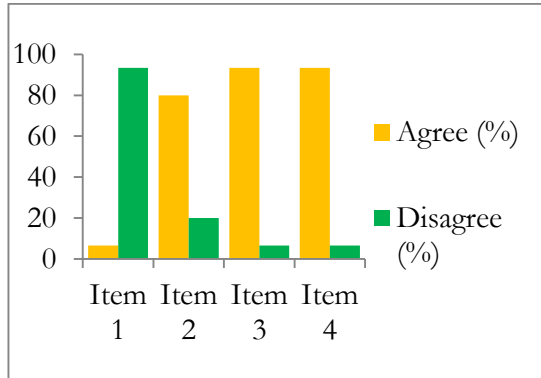
The results of the quantitative descriptive analysis obtained can be used to determine the feasibility of the prototype of the *Beksan* application media product produced before being tested on users. The results of the content validity analysis of the Aiken's V formula obtained can be used to support the validity of the *Beksan* application media product, so that it can be used in the learning process. In this research, the researcher determines the minimum standard criteria for the validity coefficient value, which is 0.70 because the range of V numbers that can be obtained is between 0 to 1.00 [23].

### 3. RESULTS AND DISCUSSION

Research and development carried out by researchers to produce learning media products in the form of an application called *Beksan* that can be installed on android-based devices also contains HOTS-loaded evaluation questions related to SBdP material, especially higher-class Dance Arts in elementary school. Researchers conducted research and development based on the Borg & Gall model [20, pp. 199–200] which has been modified into six steps, as follows:

#### 3.1. Research and Information Collecting

In the first stage, researchers conducted field studies and literature studies. In the field study, the researcher carried out a needs analysis by distributing a questionnaire instrument that was packaged in the form of a Google Form. The questionnaires were widely distributed to educators at the SD/MI level in Karanganyar and Sukoharjo districts. This is done so that researchers get a lot of information. Researchers can use all existing opportunities from various sources to find out the needs of appropriate and appropriate learning media. Furthermore, the results obtained by filling out a questionnaire on Google Forms on four questions by 15 educators related to the analysis of needs for learning media needs are presented in figure 1.



**Figure 1** Results of the Needs Analysis of Learning Media

Based on Figure 1 above, it can be seen that 93.33% of educators stated that educators had never found or used learning media in the form of an Android-based application to learn to dance and 6.7% of educators said they had. During the COVID-19 pandemic, as many as 80% of educators stated that educators had difficulty carrying out SBdP learning, especially Dance Arts and 20% of educators stated that they had no difficulties. As many as 93.33% of educators stated that educators needed android-based learning media related to dance material and 6.7% educators who did not need it. Educators who "agree" if there is a learning media in the form of an Android-based application to support the online learning process related to dance material,

especially during the COVID-19 pandemic, are 93.33% and 6.7% of educators who "do not agree".

In the literature study, researchers reviewed the 2013 Curriculum applicable to the education system in Indonesia and concluded the relevant literature. At this stage, researchers obtained information in the form of Content Standards, namely Core Competencies (KI), Basic Competencies (KD), learning indicators, and learning objectives that were used as guidelines in developing *Beksan* application media.

Educators need learning media in the form of applications that can be installed on Android-based devices to support the implementation of the learning process related to SBdP materials, especially Dance Arts during the COVID-19 pandemic. This is so that the learning process during the pandemic can continue and provide meaningful experiences. Educators need to make efforts to create a fun and interesting learning process [18].

#### 3.2. Planning

In the second stage, researchers obtained references related to SBdP material, especially Dance Arts. Researchers also compiled a flowchart containing flowcharts of features and materials presented on the developed *Beksan* application media product. Researchers compiled a story board that contains an overview of the design features and materials in the prototype of the *Beksan* application media product. The story board aims to facilitate the process of developing the parts in the prototype feature of the *Beksan* application so that they are neatly arranged. The features contained in this application include a splash screen page, competency page, material entry page, compiler profile page, bibliography page, symbol info page in the application, and a page to exit the application.

The researcher also compiled a grid of research instruments in the form of a questionnaire containing the evaluation criteria for the validation of the *Beksan* application media by experts and users. The assessment questionnaire sheet at the expert validation stage was given to two media design experts, two linguists, and two material experts to determine the feasibility of the prototype of the *Beksan* application media product. Validation assessment sheets at the limited public test stage were given to users consisting of 20 educators and 50 high school students (IV and V) elementary schools in Karanganyar and Sukoharjo districts.

#### 3.3. Develop Preliminary Form of Product

In the third stage, researchers have produced a draft of the instructional media design obtained from the Planning stage. The prototype of the *Beksan* application

media product can be installed on an Android-based device that contains HOTS-loaded evaluation questions. This application was developed using Corel Draw X7 and Adobe Animate CC 2018 software. Researchers went through three steps in this stage, including designing the display of the *Beksan* application media, checking prototypes, and publishing. The steps taken by researchers are as follows:

**3.3.1. Beksan Application Media Display Design**



**Figure 2 Desain 1**



**Figure 3 Desain 2**



**Figure 4 Desain 3**



**Gambar 5 Desain 4**



**Figure 6 Desain 5**



**Figure 7 Desain 6**



**Figure 8 Desain 7**



**Figure 9 Desain 8**



**Figure 10 Desain 9**



**Figure 11 Desain 10**



**Figure 12 Desain 11**

Based on the display design of the *Beksan* application media presented above, the contents of the material on each page are described as follows:

- 1) Design 1, displays a splash screen page that will appear at the beginning when the user enters the *Beksan* application. On this page there is the name of the *Beksan* application and the application logo.
- 2) Design 2, displays the main menu page that will appear at the beginning just after the splash screen page. On this page there are features of the competency page, material entry page, compiler profile page, bibliography page, symbol info page in the application, and application exit confirmation page.
- 3) Design 3, displays a competency page that will appear when the user selects a competency feature on the main menu page. On this page there are Core Competencies, Basic Competencies, and upper grade learning objectives (IV and V) in SD/MI which are used as guidelines in developing *Beksan* application media.
- 4) Design 4, displays the builder profile page that will appear when the user selects the builder profile feature on the main menu page. On this page there is the identity of the researcher as well as the compiler in the development of the *Beksan* application media.
- 5) Design 5, displays a symbol info page in the application that will appear when the user selects the application symbol info feature on the main menu page. On this page there is a description of the symbols contained in the *Beksan* application media.
- 6) Design 6, displays the material login page that will appear when the user selects the material login feature on the main menu page. On this page there are features of the Dance Arts material page, a dance movement simulation page, and an evaluation question page.
- 7) Design 7, displays the Dance Arts material page which will appear when the user selects the Dance Arts material feature on the material

login page. This page features a dance Arts definition page, a dance arts function page, a dance arts basic element page, a dance arts supporting element page, and a page of dancing types.

- 8) Design 8, displays the property page and dance movement simulation which will appear when the user selects the property and dance movement simulation feature on the material login page. On this page there is a property page feature in dance and a simulation of regional dance movements in Indonesia in the form of serial images.
- 9) Design 9, displays an evaluation question page that will appear when the user selects the evaluation question feature on the material entry page. On this page there is an evaluation question page feature containing three HOTS questions.
- 10) Design 10, displays a bibliography page that will appear when the user selects the bibliography feature on the main menu page. On this page there is information about the references used in the preparation of materials in the development of the *Beksan* application media product.
- 11) Design 11, displays the application exit page that will appear when the user selects the application exit confirmation feature on the main menu page. On this page there are questions that provide alternative answers "Yes" and "No" for users who want to exit the *Beksan* application.

### 3.3.2. *Beksan* Application Prototype Checking

In this step, the researcher checked the media design of the *Beksan* application to find out whether this application could be operated properly before being uploaded and shared using the *Google Drive* link to experts and users at the product validation test stage.

### 3.3.3. Uploading on *Google Drive*

The next step from the media product development stage, the researcher uploaded the media file of the *Beksan* application on *Google Drive* and then shared the [bit.ly/MediaBeksan](https://bit.ly/MediaBeksan) link to experts and users.

## 3.4. Preliminary Field Testing

In the fourth stage, the researcher conducted an initial trial of the prototype of the *Beksan* application media product. Validation by experts is carried out through focus group discussions (FGD). This activity aims to obtain data in the form of validation

assessments, suggestions, and input regarding the feasibility of the *Beksan* application media product prototype that can be installed on an android-based device containing HOTS-loaded questions related to Cultural Arts and Crafts (SBdP) materials, especially Dance Arts for upper class students (IV and V) in SD/MI so that the feasibility and quality are known before a limited public test is carried out by users.

### 3.4.1. Result of Validation Assessment by Media Design Expert

The results of the assessment by the two media design experts obtained an average score of 86. As the average score obtained, when converted qualitatively using a feasibility categorization table, it was included in the "Good" category. The average score was obtained from the average overall score based on the aspects of implementing the use of media, audio and visual displays, and software engineering.

The score of the results of the validation assessment by the two media design experts on the four statements based on the implementation aspect of the use of media is presented in table 1, below:

**Table 1.** Media Design Expert Validation Assessment Results Based on Aspects

	<b>Evaluation Score</b>	<b>Total Score</b>
Media Design Expert I	18	34
Media Design Expert II	16	

Based on the calculation results, the average score of the two media design experts on four questions based on the implementation aspect of media use is 17. The average score is then converted qualitatively using a feasibility categorization table so that the results obtained are included in the "Very Good" category.

The score of the results of the validation assessment by the two media design experts on 13 statements based on the audio and visual display aspects is presented in table 2, as follows:

**Table 2.** Media Design Expert Validation Assessment Results Based on Audio and Visual Display Aspects

	<b>Evaluation Score</b>	<b>Total Score</b>
Media Design Expert I	57	105
Media Design Expert II	48	

Based on the results of the calculation, the average score of the two media design experts on 13 questions based on the audio and visual display aspect was 52.5.



The average score is then converted qualitatively using a feasibility categorization table, so that the results obtained are included in the "Good" category.

The score of the validation assessment results by the two media design experts on four questions based on software engineering aspects is presented in table 3, as follows:

**Table 3.** Media Design Expert Validation Assessment Results Based on Software Engineering Aspects

	<b>Evaluation Score</b>	<b>Total Score</b>
Media Design Expert I	17	33
Media Design Expert II	16	

Based on the calculation results, the average score of the two media design experts on four questions based on aspects of software engineering is 16.5. The average score is then converted qualitatively using a feasibility categorization table, so that the results obtained are included in the "Good" category.

**3.4.2. Results of Validation Assessment by Linguists**

The results of the assessment by the two linguists obtained an average score of 28. As with the average score obtained, when converted qualitatively using a feasibility categorization table, it is included in the "Very Good" category. The average score is obtained from the average overall score based on linguistic aspects.

The score of the validation assessment results by the two linguists on six statements based on linguistic aspects is presented in table 4, below:

**Table 4.** Linguistic Expert Validation Assessment Results Based on Linguistic Aspects

	<b>Evaluation Score</b>	<b>Total Score</b>
Linguist I	26	56
Linguist II	30	

Based on the calculation results, the average score of the two linguists on six questions based on linguistic aspects is 28. The average score is then converted qualitatively using a feasibility categorization table, so the results obtained are included in the "Very Good" category.

**3.4.3. Result of Validation Assessment by Material Expert**

The results of the assessment by the two material experts obtained an average score of 92.5. As the average score obtained, when converted qualitatively using a feasibility categorization table, it is included in the "Very Good" category. The average score is obtained from the average overall score based on aspects of the implementation of learning, material, and evaluation questions.

The score of the results of the validation assessment by the two material experts on one statement based on the implementation aspect of learning is presented in table 5, below:

**Table 5.** The results of the Material Expert Validation Assessment Based on the Aspects of the Implementation of Learning

	<b>Evaluation Score</b>	<b>Total Score</b>
Material Expert I	4	9
Material Expert II	5	

Based on the calculation results, the average score of the two material experts on one question based on the implementation aspect of learning is 4.5. The average score is then converted qualitatively using a feasibility categorization table, so that the results obtained are included in the "Very Good" category.

The score of the validation assessment results by the two material experts on 16 statements based on the material aspects is presented in table 6, below:

**Table 6.** Hasil Penilaian Validasi Ahli Materi Berdasarkan Aspek Materi

	<b>Evaluation Score</b>	<b>Total Score</b>
Material Expert I	72	134
Material Expert II	62	

Based on the calculation results, the average score of the two material experts on one question based on the material aspect is 67. The average score is then converted qualitatively using a feasibility categorization table, so the results obtained are included in the "Very Good" category.

The score of the results of the validation assessment by the two material experts on the five statements based on the aspects of the evaluation questions is presented in table 7, below:

**Table 7.** The results of the Material Expert Validation Assessment Based on the Aspects of the Evaluation Question

	Evaluation Score	Total Score
Material Expert I	22	42
Material Expert II	20	

Based on the calculation results, the average score of the two material experts on five questions based on the aspect of the evaluation question is 21. The average score is then converted qualitatively using a feasibility categorization table, so the results obtained are included in the "Very Good" category.

The results of the feasibility validation assessment of the prototype of the *Beksan* application media product in accordance with research conducted by [10], [18], [24], explained that the feasibility validation assessment score of the research modification carried out was obtained from the table of media product quality assessment criteria which included  $\bar{X} > Mi + 1,8 S_{Bi}$  included in the "Very Good" category with a score of A;  $Mi + 0,6 S_{Bi} < \bar{X} \leq Mi + 1,8 S_{Bi}$  included in the "Good" category with a value of B;  $Mi - 0,6 S_{Bi} < \bar{X} \leq Mi + 0,6 S_{Bi}$  included in the "Enough" category with a value of C;  $Mi - 1,8 S_{Bi} < \bar{X} \leq Mi - 0,6 S_{Bi}$  included in the "Less" category with a value of D; dan  $\bar{X} \leq Mi - 1,8 S_{Bi}$  included in the "Very Poor" category with a value of E.

Based on the description presented above, the results of the initial trial show that the prototype of the *Beksan* application media product was declared good by the two media design experts from the aspect of implementing the use of media, aspects of audio and visual display, and aspects of software engineering. Both linguists from the linguistic aspect were declared very feasible. The two material experts from the implementation of learning, material aspects, and aspects of evaluation questions were stated to be very good. As suggestions and input from the two media design experts, the two linguists, and the two material experts, the researchers have made improvements so that the *Beksan* application media product is feasible and ready to be used by users with the aim of obtaining data on a limited public test.

**3.5. Main Product Revision**

In the fifth stage, the researcher made improvements to the *Beksan* application media product according to the input and suggestions obtained by the experts at the initial trial stage. It is intended that researchers are able to produce the final display of the *Beksan* application media product used by users at the limited public trial stage. Based on the media design expert I obtained input and suggestions that the logo or

material image does not reflect the material symbol. Media design expert I recommends using a logo image that is more appropriate.

The results of improvements based on input and suggestions from media design experts I can be seen in Figures 2 and 3, as follows:



**Figure 2.** Splash Screen Page Before Repair



**Figure 3.** Splash Screen Page After Repair

Based on the linguist I obtained input and suggestions that in general the media developed is very good and inspiring. The audio is presented very clearly and not too fast. However, technical instructions for using the application are required. Its use is quite confusing if no instructions are provided. In this regard, the researcher created a guidebook for the installation and use of the *Beksan* application media product which is expected to make it easier for users. The guidebook compiled by the researcher is presented in the appendix.

Linguists II provide input and suggestions that the language used is good. However, it is necessary to adjust the background sound with the narrator so that they do not overlap. The sound effects of the buttons seem annoying. Tones and sounds can be customized. In addition, the need for layout adjustments to make it more comfortable. The results of the revision based on input and suggestions from linguists II can be seen in Figures 4 - 11, as follows:



**Figure 4.** Dance Definition Page Before Reparation



**Figure 5.** Dance Definition Page After Reparation



**Figure 6.** Dance Definition Page After Reparation



**Figure 7.** Dance Definition Page After Reparation



**Figure 6.**  
Dance Basic Elements Page Before Reparation



**Figure 7.**  
Dance Basic Elements Page After Reparation



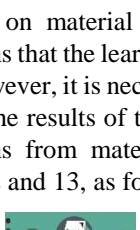
**Figure 8.**  
Dance Supporting Elements Page Before Reparation



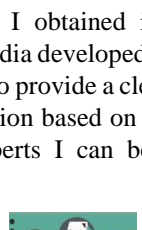
**Figure 9.**  
Dance Supporting Elements Page After Reparation



**Figure 10.**  
Dance Function Page Before Reparation



**Figure 11.**  
Dance Function Page After Reparation



Based on material experts I obtained input and suggestions that the learning media developed was very good. However, it is necessary to provide a clear source of data. The results of the revision based on input and suggestions from material experts I can be seen in Figures 12 and 13, as follows:



**Figure 12.**  
Bibliography Pages Before Reparation



**Figure 13.**  
Bibliography Pages After Reparation

### 3.6. Main Field Testing

In the sixth stage, the researcher conducted a limited public test of the use of the *Beksan* application media product which had been improved at the initial stage of product revision. The data was obtained based on the results of a limited public test of the *Beksan* application media product using an assessment questionnaire instrument containing 12 questions. The average result of the coefficient V based on aspects of audio and

visual display, aspects of software engineering, aspects of implementing the use of media, material aspects, and linguistic aspects by 20 SD/MI educators in Karanganyar Regency and Sukoharjo Regency was 0.802, while the average result coefficient V by 50 upper grade students (IV and V) SD/MI in Karanganyar Regency and Sukoharjo Regency was obtained at 0.783. The data on the results of a limited public test on the use of *Beksan* application media products based on each aspect are presented in table 8, as follows:

**Table 1.** Limited Public Test Results

No	Aspect	Average Coefficient V	
		Educator	Student
1	Audio and Visual Display	0.808	0.781
2	Software Engineering	0.812	0.787
3	Implementation of Media Usage	0.804	0.773
4	Material	0.788	0.742
5.	Language	0,794	0,795

The range of V numbers that can be obtained is between 0 to 1.00 [23], so based on table 1, the numbers are 0.808 and 0.781 in the aspect of audio and visual display; numbers 0.812 and 0.787 on software engineering aspects; numbers 0.804 and 0.773 in the aspect of implementing the use of media; numbers 0.788 and 0.742 in the material aspect; and the numbers 0.794 and 0.795 in the linguistic aspect can be interpreted as quite high coefficients for these aspects. That is, in all aspects it has good content validity and is able to support the use of *Beksan* application media products in the learning process.

### 4. DISCUSSION

*Beksan* in Indonesian Dictionary (KBBI) means traditional Javanese dance, while in Javanese it means dance [25]. The *Beksan* application media is a learning media product in the form of an application that can be installed on Android-based devices, an open platform for researchers who want to develop various applications [26] and [27]. The development of media products in the form of applications is expected to be able to make it easier for students to access the material in it without being limited by space and time, especially during the online learning process during the COVID-19 pandemic. The presence of Android-based devices in the field of education has a major impact in efforts to improve the quality of education, because Android-based devices can be accessed by everyone without any

restrictions so that the learning process can take place more flexible [28].

The learning process related to Dance Arts in Elementary Schools should use media that integrates IT advancements, making it easier for students to understand the material [29]. The use of gadgets also affects the efficiency of the time needed to study [24]. In addition, the online learning process that takes place during the pandemic can be helped by the development of learning media in the form of applications. The existence of application media is an alternative form of media innovation that is attractive, practical, and easy to operate independently by students [27]. Media is able to play an important role in the teaching and learning process if it can be used independently by students [30].

The *Beksan* application media developed by researchers contains SBdP material, especially Dance Arts for students in elementary schools. This media is also equipped with features that contain simulations of various movements from 10 traditional dances in Indonesia which include the Tor-tor Dance from North Sumatra, Gambuyong Dance from Central Java, Mambri Dance from Papua, Pakarena Dance from South Sulawesi, Plate Dance from West Sumatra, Jaipong Dance from West Java, Pendet Dance from Bali, Kancet Papatai Dance from East Kalimantan, Bungong Jeumpa Dance from Aceh, and Jejer Gandrung Dance from East Java. This feature aims to provide a meaningful learning process through fun and innovative activities for students, especially when implementing online learning caused by the COVID-19 pandemic.

Students must be actively involved in Dance Arts learning process, so that students can act as listeners/observers and be able to demonstrate the motion of a dance creatively and expressively [31]. The ability of students to accept and respect their local culture is an effort to develop cultural literacy [32]. Educators and educational institutions play an important role in developing, promoting, and improving cultural literacy skills in the era of globalization [33]. It aims to raise the spirit of the young generation of cultural diversity they have. As rural communities in Indonesia are trying to preserve culture through various types of performing arts [34], both individually and in groups.

The development of the *Beksan* application media product is also equipped with voice narration from educators. The existence of voice narration aims to provide a pleasant learning atmosphere with educators even though learning takes place online, so that students still feel excited. Students prefer to listen to voices or voice narrations and watch videos before paying attention to the text of the material presented [35]. The presence of voice narration is able to give the

impression of the presence of educators for students during teaching and learning activities [35].

The evaluation questions contained in the *Beksan* application are an effort to develop an assessment instrument containing HOTS for students in elementary schools. The assessment instrument containing HOTS in elementary schools is still very minimal [37]. The development of questions containing HOTS is also in line with innovations in the Ministry of Education and Culture program through the Directorate General of Teachers and Education Personnel (Ditjen GTK) which seeks to improve the quality of education in Indonesia by developing critical thinking skills, creative and innovative ability, communicative ability, collaboration ability, dan the ability to build self-confidence [38].

The development of the *Beksan* application media product is expected to be able to overcome limitations and problems in the learning process related to SBdP material, especially Dance Arts in Elementary Schools, such as: a) problems related to cultural literacy; b) Less meaningful Dance Arts lessons; c) students do not understand and master the material; d) fading of students' love for national and local culture; e) the lack of use of android-based devices as learning media; f) lack of educator innovation in developing learning media that utilizes the development of science and technology. The existence of the development and application of *Beksan* application media products in the learning process in accordance with the needs of educators and students in the 21st century education era. The existence of the *Beksan* application media is also able to overcome problems in the online learning process related to SBdP material, especially Dance Arts in Elementary Schools due to the covid-19 pandemic which causes students to not understand the material provided.

## 5. CONCLUSION

Experts and users state that the *Beksan* application media is suitable for use in the learning process. This is evidenced by the results of the validation assessment by the two media design experts obtaining an average score of 86 which is included in the "Good" category, the validation assessment by the two linguists obtaining an average score of 28 which is included in the "Very Good" category, and the validation assessment by the two material experts obtained an average score of 92.5 which was included in the "Very Good" category. The results of the validation assessment by educators obtained an average score of coefficient V of 0.802. Meanwhile, the results of the validation assessment by upper grade students (IV and V) obtained an average coefficient of 0.783 for V. These results mean that all aspects have good content validity and are able to support the use of *Beksan* application media products

in the learning process. The average score of the coefficient V is greater than the minimum standard criteria for the valid coefficient value determined by the researcher, namely 0.70 which means it is included in the high validity category with the description "Very Good".

## CONFLICT OF INTEREST

The authors declare they have no conflicts of interest.

## AUTHORS' CONTRIBUTIONS

Both authors conceived the idea and substance of the article and contributed to its structure and development.

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