The Development of Local Wisdom Reading Applications in Cultural Heritage Villages on the Banks of the Musi River

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Abstract: Actual evidence of cultural heritage villages in Palembang, namely Arab and Chinese villages, is one source of learning history to convey meaningful messages to students. These messages could be developed in the form of applications containing authentic material and videos of cultural heritage so that students can find out directly in them to build motivation and a sense of belonging. Besides its benefit for student and revitalization of the local historical area, the creation of a digital-based application will store the memory of the past and grows awareness of its history. The problem in this research is how to develop the application of local wisdom to the cultural heritage of Arab and Chinese villages in Palembang. This study aimed to develop the application of local wisdom to the cultural heritage of the Arab and Chinese villages in Palembang only at the right point by experts. The method used in this research is the ADDIE model of research and development. The results of this study from media and material validation experts indicate that they fall into the "excellent" category for use. From this research, it can be concluded that this study's development of local wisdom to the cultural heritage of Arab and Chinese villages is feasible as a historical reading medium.

Keywords: Learning media applications, local wisdom, cultural heritage

Introduction

Learning history today cannot be denied requires technology in all its aspects. It unites technology and learning, which is an application or media that has been designed in a modern way and used as theory and practice in learning, as a source of learning. Currently, the technology that has been widely used in the world of education is information technology. The existence of information used for learning media can positively impact students and students; namely, they can more easily find the information needed during the learning process. The media that can be used is to provide internet facilities and other supporting electronic devices.

The local wisdom of Arab and Chinese villages on the banks of the Musi River is manifested in human life starting from the existence of civilization in the world. Local wisdom is reflected through human attitudes and behaviour, both human behaviour towards humans and the environment. For the community, local wisdom has become a tradition that is firmly attached to life. The occurrence of differences in character and intensity of socio-cultural relations do not make people stay away from tradition because the community should have been bound in a shared vision to create a dignified life. Local wisdom makes community members uphold social values and norms when in the process of interaction.

The importance of technology in the world of education adds information to supporting facilities for students and educators to seek more comprehensive information, in addition to using sources from books and print media, increasing learning abilities this happens because the information on the internet is more updated so that students can easily access the new information needed, under the supervision of the teacher, facilitates access to learning, the learning process can be facilitated by the presence of technology in education, the material is more interesting, the use of technology in education can make students more comfortable and not seem bored or monotonous. Because the delivery of information through changing technology looks more varied and modern, increasing interest in learning means complete information and knowledge. Easy access can make students more interested in learning.

Reading is an important activity; through reading activities, readers get information and ideas contained in reading. From a teaching perspective, the

role of reading is crucial. The learning program will undoubtedly experience a total bottleneck if the teachers do not involve students in reading activities. Learning to read significantly determines the mental development of children and is a significant activity to increase the potential of early childhood. This is possible because reading involves many factors such as comprehension, vision, time, amount, speed, environment, organization, literary style, and analysis.

In terms of reading, not all parents have the opportunity or carry out routine reading activities for students both at home and even in the school environment. This is suspected of causing students' interest in reading which is still low at the elementary school level. The results of the PIRLS (Progress in International Reading Literacy Study) for primary schools in 2006 carried out by the International Association for Evaluation of Educational Achievement (IEA) showed that the average reading ability of elementary school students for literacy purposes was 41 out of 45 countries that take this assessment.

Research from the Program for International Student Assessment (PISA) Organization for Economic Co-Operation and Development (OECD) in 2015 explains that Indonesian literacy is still low compared to other countries. The results of research from 72 countries, Indonesia is ranked 62. (Ghofur & Rachma, 2019). A 2016 Central Connecticut State University study on Most Literate Nations in The World revealed that Indonesians are only 0.01 percent or one in ten thousand. (Rossa, 2018). The National Library of Indonesia in 2017 revealed that the frequency of reading for Indonesian people is three to four times per week on average, and the number of books read is an average of five to nine books per year. (Pratiwi, 2018). This result is certainly concerning for the world of education because it shows that the State of Indonesia is still low in terms of literacy.

Based on the above problems, the purpose of this research is in the background that it is more focused on how to develop the application of local wisdom in the cultural heritage village on the banks of the Musi River as a historical reading medium, especially the cultural heritage of the Arab and Chinese villages in Palembang.

Methods and Research Design

Methods. Based on the research problems that must be solved and the objectives to be achieved, this research is carried out through research and development. Gall and Borg (2003) define research and development (R & D) in education as a process used in developing and validating an educational product. Research findings are used to design new products and procedures, which are then systematically tested, evaluated, and refined until the results meet the criteria, for example, in terms of practicality and effectiveness and not only that but also find the knowledge of practical answers. The development consists of two main objectives, namely developing products and testing the effectiveness of these products in achieving goals. The first objective is the development function, while the second objective is the validation function (Borg & Gall, 2003). In line with the understanding, according to Sugiyono (2014), Research and Development is a research method to produce specific products which can be tested for the effectiveness of these products.

In the preparation of this research, the development carried out followed the steps in the ADDIE design. The steps taken in the development of media through ADDIE started with (1) needs analysis, (2) instructional media design, (3) development, (4) implementation, (5) evaluation. So it can be identified that the obstacles in learning are the lack of learning media and a sense of maintaining cultural heritage; it is necessary to develop an application development of local wisdom on the cultural heritage of Arabic and Chinese villages in Palembang as a source of historical reading media.

Research Design. The procedure in research and development of digital learning media is a stage that researchers will carry out in developing research based on the design that has been selected by the researcher. The development design chosen and used in this research is the ADDIE development design. The ADDIE development design consists of five stages, namely: (1) needs analysis, (2) instructional media design, (3) development, (4) implementation, (5) evaluation. For a more structured design of this research, see the Figure 1.

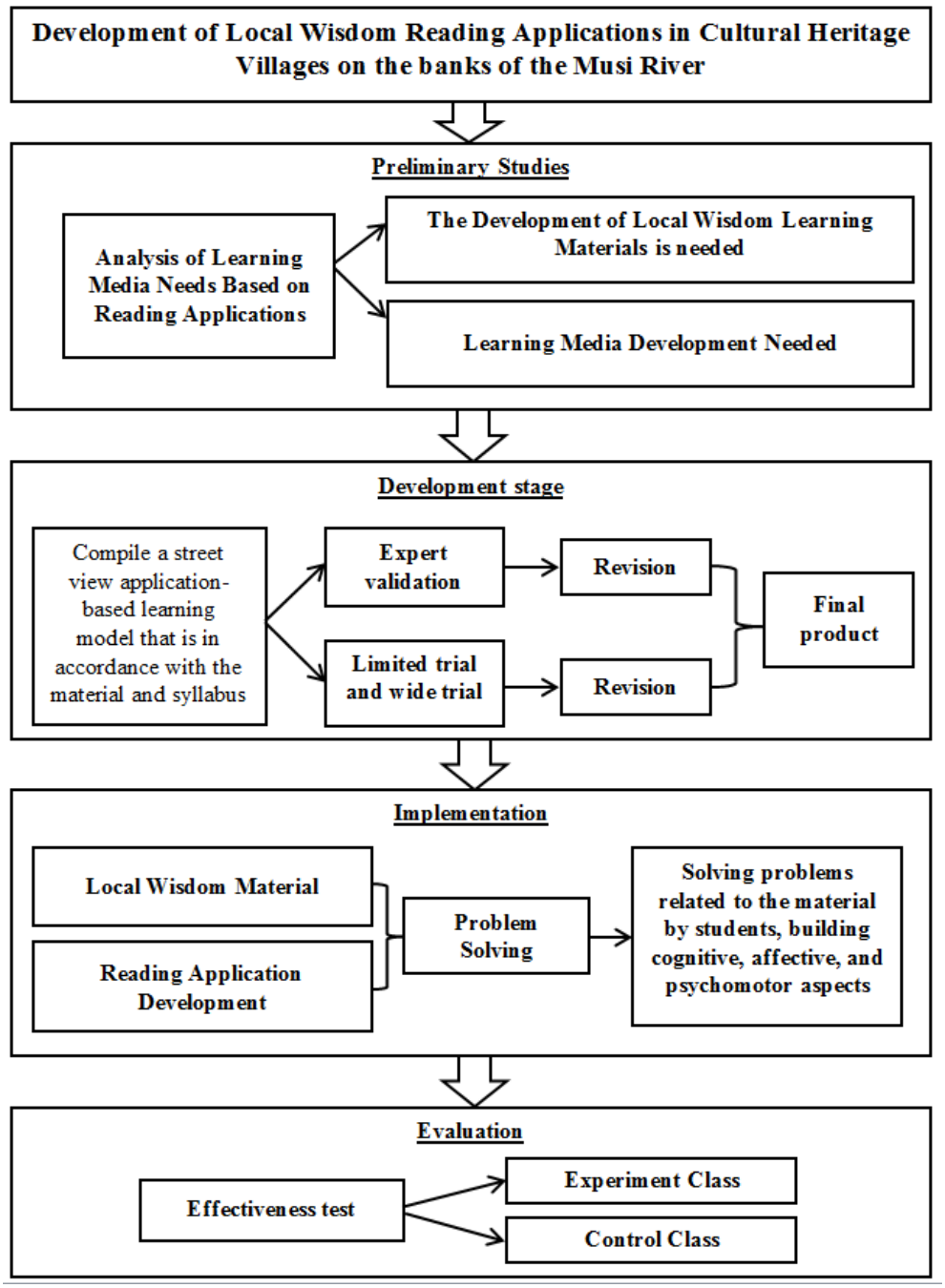


Figure 1. The Diagram of Flowchart of The Research Design

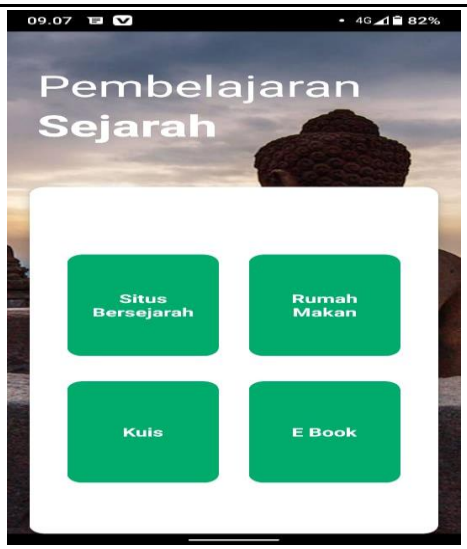
Findings and Discussion

The preparation of this application learning media is based on the Research and Development development model, which refers to the ADDIE model; in preparing this history, application learning media is based on several steps. The development of history application learning media follows the procedures needed by researchers from the adjustment syllabus, RPP, KI, and KD.

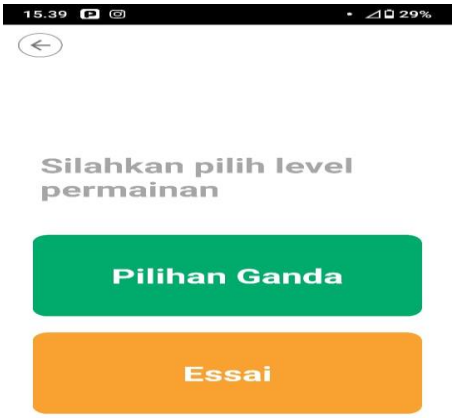
Preparation of Initial Draft Application. The initial draft of the preparation of application learning media can be described as follows:

Table 1. Application Description

No	Appearance	Information
1		Initial Screen Login Application

2		Display of Application Features 1. Historic Sites 2. restaurant 3. Quiz 4. Electronic source e-book for the top right about the application where describes the application builder profile
3		Display of historical site features related to thesis 1. Kapitan's Village 2. Arab Village For others just additional 3. Kuto Besak Fort 4. Ampera Bridge 5. Sultan Mahmud Badarudin II Museum

4		This is what historical sites look like when opened 1. Provide a Photo with a 360-degree feature on the top left of the image. 2. Provide youtube videos with 360-degree video 3. Location Maps 4. Short story about the area
5		Nearest facility features from Kapitan and Almunawar village areas

6		Nearest facility features from Kapitan and Almunawar village areas
7		Electronic Source In connection with the continuation of the complete reading of the historical site features, electronic history books

Application Validation. Based on the previous discussion, the application media for the cultural heritage of the Arab and Chinese villages in Palembang at SMK PGRI 1 Palembang in class X. After the application is designed and completed, the application is then validated by media experts and material experts. The validation is for the *media* feasibility test, *and application* learning *materials* developed based on the assessment of the expert validators. The determination of the validator is based on ability

considerations. Media compiled based on the framework discussed in the previous stage starch has certain shortcomings, which will later be corrected based on suggestions from the validator.

Media Expert Validation Results

1. Media Expert 1
   Media expert 1: Dr. Deny Tri Ardianto, S.Sn., MA. The lecturer at Sebelas Maret University, Surakarta assessed that media could be used for development with good media information, but the layout is too simple**.** The results of the questionnaire are as follows:

Table 2. Media Expert Questionnaire 1

No.	Observation Aspects	Observation Value				
		1	2	3	4	5
1	**Material**					
	a. The *application* media used can support the material to be taught.				v	
	b. The *application* media used follows the learning objectives.				v	
	c. The use of the *application* used is following the Basic Competence.				v	
2	**Illustration**					
	a. The *application* media users can make it easier for students to understand historical material in class.					v
	b. The *application* media used can present videos and pictures of the situation following the original to support historical learning.					v
3	**Media Quality and Display**					
	a. The display of *application* media can attract students' attention and support student learning activities.				v	
	b. *Application* media displays attractive colors, images, and visuals.				v	
4	**Attractiveness**					
	a. The use of *application* media can increase students' enthusiasm for learning in the				v	

	classroom.		
	b. The use of *application* media can help teachers deliver history learning effectively to students in the classroom.	v	
Amount		7	2
Total x Score		28	10
Total number		38	
Total		4.22	
Information		38 x 100 = 84.4 45	

Based on the results of media expert one validation, as shown in the table above, information was obtained from 4 assessment items and as many as 9 statement items; the percentage was 84.4%. The details are as follows:

a) There are nine questions in the table.
b) The number of questions with a scale of 4 is seven, so 28 points are obtained (results of 4 X 7).
c) The number of questions with a scale value of 5 is two so that 10 points are obtained (results of 5 X 2).
d) Of the total points obtained, the total number obtained is 38 (the result of 28 + 10).
e) From the total points obtained, the average value is 4.22. (Total number: number of statements)
f) Then obtained information Percentage that the media is in the VERY GOOD category.

The following is a table of percentages and frequencies from the results of the expert validation test I above:

Table 3. Percentage of Model Draft Validation Results by Media Experts I

No	Criteria	Frequency	Percentage (%)
1.	Very less	0	0%
2.	Not enough	0	0%
3.	Enough	0	0%
4.	Well	7	77.77%
5.	Very good	2	22.22%

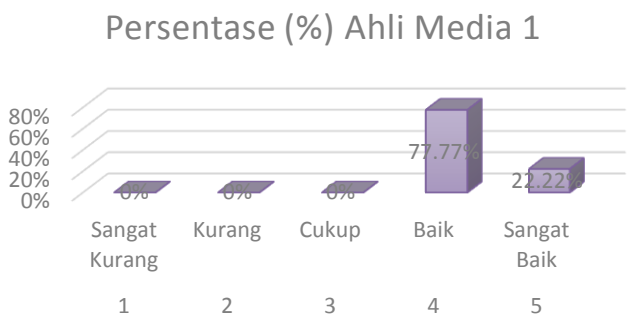


Figure 2. The Bar Chart 1 of Media Expert 1

Based on the statement of the table and histogram above, it can be seen that the media validity 1 obtained a score with a category that stated significantly less with a total of 0 respondents with a percentage of 0%, a category that stated a lack of a total of 0 frequency or a percentage of 0%, a category that stated a sufficient number of 0 0% frequency or percentage, the category that states well with a total of 7 frequencies or a percentage of 77.77%, a category that states very well with a total of 2 frequencies or a percentage of 22.22%.

2. Media Expert 2
   Media expert 2 Mr. Umar Syaid Himawan, S.Kom. The Software Developer Profession at PT Tiga Akar Dreams (WIR Group) assessed that the media could be used for development with good information to be used as research. The results of the questionnaire are as follows:

Table 4. Media Expert Questionnaire 2

No.	Observation Aspects	Observation Value				
		1	2	3	4	5
1	**Material**					
	The *application* media used can support the material to be taught.					v
	The *application* media used follows the learning objectives.				v	
	The use of the *application* used is following the Basic Competence.				v	
2	**Illustration**					
	The *application* media users can make it easier for					v

	students to understand historical material in class.		
	The *application* media used can present videos and pictures of the situation following the original to support historical learning.		v
3	**Media Quality and Display**		
	The display of *application* media can attract students' attention and support student learning activities.	v	
	Application media displays attractive colors, images, and visuals.	v	
4	**Attractiveness**		
	The use of *application* media can increase students' enthusiasm for learning in the classroom.	v	
	The use of *application* media can help teachers deliver history learning effectively to students in the classroom.		v
Amount		5	4
Total x Score		20	20
Total number		40	
Total		4.44	
Information		40 x 100 = 88.88 45	

Based on the validation results of media expert one, as shown in the table above, information was obtained from 4 assessment items, and as many as 9 statement items, 88.88 points were obtained. The details are as follows:

a) There are nine questions in the table.
b) The number of questions with a scale of 4 is five so that 20 points are obtained (results of 4 X 7).
c) The number of questions with a scale of 5 is four so that 20 points are obtained (results of 5 X 2).
d) Of the total points obtained, the total number is 40 (20 + 20).
e) From the total points obtained, the average value is 4.44. (Total number: number of statements)
f) Then obtained information Percentage that the media is in the VERY GOOD category.

The following is a table of percentages and frequencies from the results of the media expert two validation test above:

Table 5. Percentage of Model Draft Validation Results by Media Experts 2

No	Criteria	Frequency	Percentage (%)
1.	Very less	0	0%
2.	Not enough	0	0%
3.	Enough	0	0%
4.	Well	5	55.55%
5.	Very good	4	44.44%

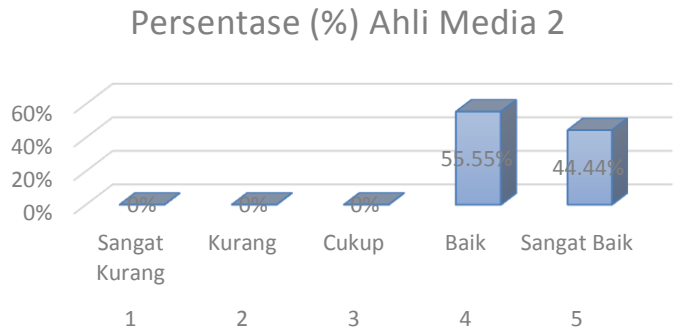


Figure 3. Bar Chart 2 Media Expert 2

Based on the statement of the table and histogram above, it can be seen that the media validator 2 obtained a score with a category that stated significantly less with a total of 0 respondents with a percentage of 0%, a category that stated a lack of several 0 frequencies or a percentage of 0%, a category that stated a sufficient number of 0 0% frequency or percentage. This category states well with a total of 5 frequencies or a percentage of 55.55%, a category that states very well with four frequencies or a percentage of 44.44%.

Analysis of Media Expert Validation Results in 1 and 2. At this stage, a description of the frequency distribution of the overall Likert scale of media validation results will be described. The following is the distribution of the frequency of assessments by media experts 1 and 2 for each indicator as follows:

Table 6. Analysis of Media Expert Validation 1 and 2

No	Aspect Evaluation	Statement	Media Expert 1 Score	Media Expert II Score
1	**Material**	a. The *application* media used can support the material to be taught	4	5
		b. The *application* media used follows the learning objectives.	4	4
		c. The use of the *application* used is following the Basic Competence	4	4
2	**Illustration**	d. The *application* media users can make it easier for students to understand historical material in class	5	5
		e. The *application* media used can present videos and pictures of the situation following the original to support historical learning	5	5
3	**Media Quality and Display**	f. The display of the *application* media attracts students' attention and supports student learning activities	4	4
		g. *Application* media displays attractive colours, images, and visuals	4	4
4	**Attractiveness**	h. The use of *application* media can increase students' enthusiasm for learning in the classroom	4	4
		i. The use of *application* media can help teachers deliver history learning effectively to students in the classroom	4	5
		Total score	78	
		Average	4.3	

Information:
1 – 2.99 = Very Less
3 – 3.50 = Less
3.51 – 3.99 = Enough
4 – 4.50 = OK
4.51 – 5 = Very Good

Based on the results in the table above, it can be described as follows:

a) The number of statements contained in the assessment aspect consists of 9 statements.
b) The assessment results obtained from media experts II and I consist of a scale of 4 and 5.
c) The results of scale four consists of 12 voters, then the scale chosen is 12 X 4 = 48, so the total score on a scale of 4 is 48.
d) The results of a scale of 5 consists of 6 voters, then the scale chosen is 6 X 5 = 30, so the total score on a scale of 5 is 30.
e) The average results of media validation were obtained based on the sum of the results between validation I and validation II and divided by the total number of statements, namely 78: 18 = 4.3.

Based on the assessment results obtained by the two expert validators of the *application* media, the score was 4.3. This shows that the developed *application* is in a GOOD category. Thus, the *application* development media deserves to be tested. The percentage results of each indicator in the statement in terms of format, language, and illustration, content are as follows:

Table 7. Media Validation Results for Each Indicator

No	Scoring scale	Aspects of media expert assessment							
		Material		Illustration		Media display		Attractiveness	
		Frequency	%	Frequency	%	Frequency	%	Frequency	%
1	Not good	0	0	0	0	0	0	0	0
2	Not good	0	0	0	0	0	0	0	0
3	Pretty good	0	0	0	0	0	0	0	0
4	Well	5	83	0	0	4	100	3	75
5	Very good	1	17	4	100	0		1	25
Total number		6	100	4	100	4	100	4	100

Based on the distribution table of the frequency distribution values above, it can be described as follows. The validation of expert media 1 and 2 are described in 4 aspects of the assessment: the material aspect, the illustration aspect, the media display aspect, and the attractiveness aspect. The material assessment aspect consists of 3 (three) statements; the illustration indicator consists of 2 (two) statements, the media display indicator consists of 2 (two) statements, the attractiveness aspect consists of (two) statements. The total indicator statement consists of 9 statements, explained as follows:

1. Based on the frequency distribution data in the material assessment indicators, a score of 5 voters was obtained on a scale of 4 for good information and a score of 1 voter on a scale of 5 for an excellent description. The percentage calculation in the aspect of material assessment is carried out, namely by dividing the number of voters on each scale by the total number of frequencies, then multiplying by 100%. The percentage results on the aspect of material assessment on a scale of 4 obtained a value of 83%. The percentage results on the aspect of material assessment on a scale of 5 obtained 17%. So the average value obtained is 4.1 (score: number of statements) in the GOOD category.
2. Based on the frequency distribution data in the illustration assessment indicator, a score of 4 voters is obtained on a scale of 5. The percentage calculation in the illustration assessment aspect is carried out by dividing the number of voters on each scale by the total number of frequencies, then multiplying by 100%. The percentage results in the illustration assessment aspect on a scale of 5 obtained a value of 100%. Then the average value obtained is 5 (number of scores: number of statements) in the VERY GOOD category.
3. Media Display indicator, a score of 4 is obtained on a scale of 4. The percentage calculation in the media display assessment aspect is carried out by dividing the number of voters on each scale by the total number of frequencies, then multiplying by 100%. The percentage results on the media display assessment on a scale of 4 obtained a value of 100%. Then the average value obtained is 4 (number of scores: number of statements) in the GOOD category
4. In the frequency distribution data in the media attractiveness assessment indicator, a score of 3 voters is obtained on a scale of 4 good statements and a score of 1 voter on a score of 5 perfect descriptions. The

percentage calculation in the aspect of assessing the attractiveness of the media is carried out, namely by dividing the number of voters on each scale by the total number of frequencies, then multiplying by 100%. The percentage results on the media attractiveness assessment on a scale of 4 obtained a value of 75%. In comparison, the percentage results on assessing media attractiveness on a scale of 5 obtained a value of 25%. Then the average value obtained is 4.25 (total score: number of statements) in the GOOD category

Based on the description of the frequency of media experts, the percentage in the material assessment indicators is 83% on a scale of 4 and 17% on a scale of 5. In the illustration aspect, the percentage results are 100% on a scale of 5. Then on the media display assessment indicator, the percentage results are 100% on a scale of 4. Meanwhile, on the indicator of media attractiveness, the percentage results are 75% on a scale of 4 and 25% on a scale of 5. The histogram of media expert results percentage of for each indicator is as follows.

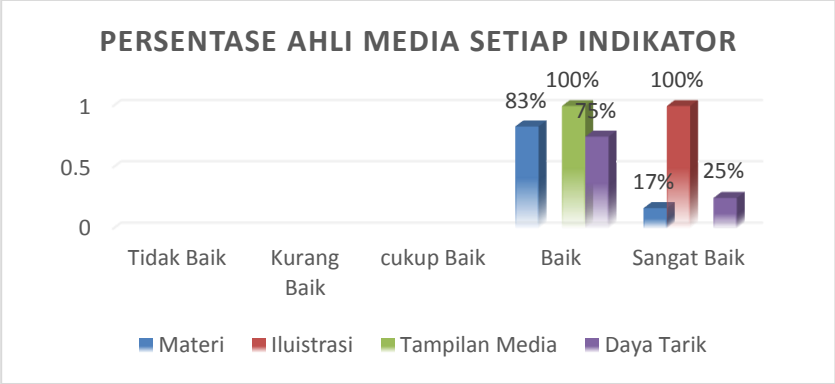


Figure 4. Bar Chart 3 Percentage of Media Expert Results Each Indicator

Material Expert Validation Results

1. Material Expert 1
   Material expert 1 Prof. Dr. Warto, M.Hum. The Lecturer Profession of Sebelas Maret University, Surakarta assessed that it could be used with revisions with video descriptions; it needs to be tidied up again and given short writing highlights. The results of the questionnaire are as follows:

Table 8. Material Expert Questionnaire 1

No	Rated aspect	Score				
		1	2	3	4	5
1	**FORMAT**					
	1. Clarity of material distribution					v
	2. Clear numbering system				v	
	3. Room arrangement/layout					v
	4. Appropriate font type and size					v
2	**LANGUAGE**					
	1. Good Grammar				v	
	2. Simple Sentence Structure				v	
	3. The suitability of the sentence with the students' thinking level					v
	4. Communicative and easy to understand					v
	5. Clear instructions and directions					v
3	**ILLUSTRATION**					
	1. Illustration support to clarify the concept				v	
	2. Provide visual stimulation					v
	3. Have a clear view				v	
	4. Using local context					v
4	**CONTENTS**					
	1. The truth/content of the material					v
	2. Grouped into logical sections				v	
	3. Suitability of learning with the material presented				v	
	4. Suitability of the task with the material				v	
	5. Encourage students to read.					v
	6. Eligibility as a learning tool					v
	Amount				8	11
	Total x Score				32	55
	Total number			87		
	Total			4.57		
	Information			87 x 100 = 91.57 95		

Based on the validation results of material expert one, as shown in the table above, information was obtained from 4 assessment items, and as many as 19 statement items obtained points. The details are as follows:

a) There are 19 questions in the table.
b) The number of questions with a scale of 4 is eight, so that 32 points are obtained (results of 4 X 8).
c) The number of questions with a scale of 5 is 11, so 55 points are obtained (results of 5 X 11).
d) Of the total points obtained, the total number is 87 (results 20 + 20).
e) From the total points obtained, the average value is 4.57. (total number: number of statements)
f) Then obtained information Percentage that the media is in the VERY GOOD category.

The following is a table of percentages and frequencies from the results of the expert validation test for Material 1 above:

Table 9. Percentage of Validation Results of the Draft Model by Expert I

No	Criteria	Frequency	Percentage (%)
1.	Very less	0	0%
2.	Not enough	0	0%
3.	Enough	0	0%
4.	Well	8	42.10%
5.	Very good	11	57.89%

Histogram 4 Material Expert 1

Based on the statement of the table and histogram above, it can be seen that the validation of material 1 obtained a score with a category that states significantly less with a total of 0 respondents with a percentage of 0%, a category that states a lack of a total of 0 frequency or a percentage of 0%, a category that states a sufficient number of 0 0% frequency or percentage, the category that states well with a total of 8 frequencies or a percentage of 42.10%, a category that states very well with a total of 11 frequencies or a percentage of 57.89%.

2. Material Expert 2

Material Expert 2 Prof. Leo Agung, M.Pd. The Profession of Sebelas Maret University Lecturer gave a good explanation. The results of the questionnaire are as follows:

Table 10. Material Expert Questionnaire 2

No	Rated aspect	Score				
		1	2	3	4	5
1	**FORMAT**					
	1. Clarity of material distribution				v	
	2. Numbering system is clear				v	
	3. Space/layout arrangement				v	
	4. The type and size of the letters are appropriate				v	
2	**LANGUAGE**					
	1. Good Grammar				v	
	2. Simple Sentence Structure				v	
	3. The suitability of the sentence with the students' thinking level					v
	4. Communicative and easy to understand					v
	5. Clear instructions and directions				v	
3	**ILLUSTRATION**					
	1. Illustration support to clarify the concept					v
	2. Provide visual stimulation				v	
	3. Have a clear view				v	
	4. Using local context					v
4	**CONTENTS**					
	1. The truth/content of the material					v
	2. Grouped into logical sections				v	
	3. The suitability of learning with the material presented				v	
	4. The suitability of the task with the material				v	
	5. Encourage students to read				v	
	6. Eligibility as a learning tool					v
Amount					13	6
Total x Score					52	30
Total number		82				
Total		4.31				
Information		82 x 100 = 86.31 95				

Based on the validation results of material experts two as shown in the table above, information was obtained from 4 assessment items and as many as 19 statement items, 86.31 points were obtained. The details are as follows:

a) There are 19 questions in the table.
b) The number of questions with a scale of 4 is 13, so 52 points are obtained (results of 4 X 13).
c) The number of questions with a scale value of 5 is six, so 30 points are obtained (results of 5 X 6).
d) Of the total points obtained, the total number obtained is 82 (results 52 + 30).
e) From the total points obtained, the average value is 4.31 (total number: number of statements)
f) Then obtained information Percentage that the media is in the VERY GOOD category.

The following is a table of percentages and frequencies from the results of the expert validation test for Material 2 above:

Table 11. Percentage of Model Draft Validation Results by Expert 2

No	Criteria	Frequency	Percentage (%)
1.	Very less	0	0%
2.	Not enough	0	0%
3.	Enough	0	0%
4.	Well	13	68.42%
5.	Very good	6	31.54%

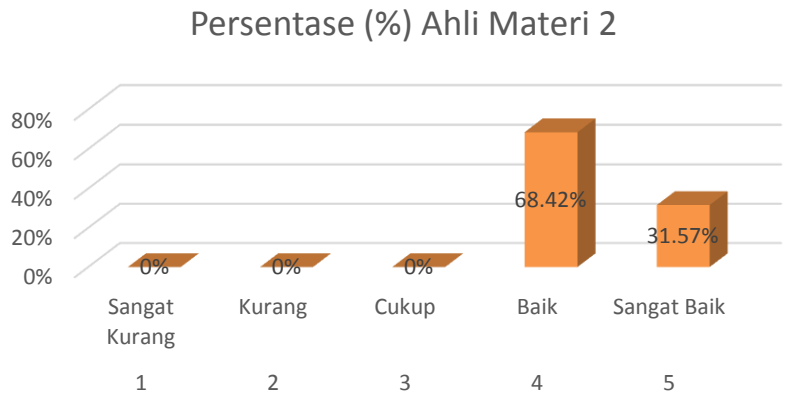


Figure 5. Diagram 5 Material Expert 2

Based on the statement of the table and histogram above, it can be seen that the validation of material 2 obtained a score with a category that states significantly less with a total of 0 respondents with a percentage of 0%, a

category that states a lack of a total of 0 frequency or a percentage of 0%, a category that states a sufficient number of 0 0% frequency or percentage, the category that states well with a total of 13 frequencies or a percentage of 68.42%, a category that states very well with a total of 6 frequencies or a percentage of 31.54%.

3. Material Expert 3

Material Expert 3 Dr. Muhammad Idris, M.Hum. The Lecturer Profession of the University of PGRI Palembang assessed that it could be used with revisions with video descriptions that need to be tidied up and given short writing highlights. The results of the questionnaire are as follows:

Table 12. Material Expert Questionnaire 3

No	Rated aspect	Score				
		1	2	3	4	5
1	**FORMAT**					
	1. Clarity of Material Distribution					v
	2. Clear Numbering System				v	
	3. Space/Layout Settings					v
	4. Font Type and Size Appropriate					v
2	**Language**					
	1. Good Grammar				v	
	2. Simple Sentence Structure					v
	3. Conformity of Sentences with Students' Level of Thinking					v
	4. Communicative And Easy To Understand				v	
	5. Clear Instructions and Directions					v
3	**ILLUSTRATION**					
	1. Illustration support to clarify the concept					v
	2. Provide visual stimulation					v
	3. Have a clear view				v	
	4. Using local context					v
4	**CONTENTS**					
	1. The truth/content of the material					v
	2. Grouped into logical sections					v
	3. The suitability of learning with the material presented					v
	4. The suitability of the task with the material				v	
	5. Encourage students to read					v
	6. Eligibility as a learning tool					v

Amount	5	14
Total x Score	20	70
Total number	90	
Total	4.73	
Information	90 x 100 = 94.73 95	

Based on the validation results of material experts three, as shown in the table above, information was obtained from 4 assessment items and 19 statement items; 94.73 points were obtained. The details are as follows:

a) There are 19 questions in the table.
b) The number of questions with a scale of 4 is five so that 20 points are obtained (results of 4 X 5).
c) The number of questions with a scale of 5 is 14, so 70 points are obtained (results of 5 X 14).
d) Of the total points obtained, the total number is 90 (results 20 + 70).
e) From the total points obtained, the average value is 4.73. (total number: number of statements)
f) Then obtained information Percentage that the media is in the VERY GOOD category.

The following is a table of percentages and frequencies from the results of the expert validation test for Material 3 above:

Table 13. Percentage of the Results of the Validation of the Model Draft by Expert 3

No	Criteria	Frequency	Percentage (%)
1.	Very less	0	0%
2.	Not enough	0	0%
3.	Enough	0	0%
4.	Well	5	26.31%
5.	Very good	14	73.68%

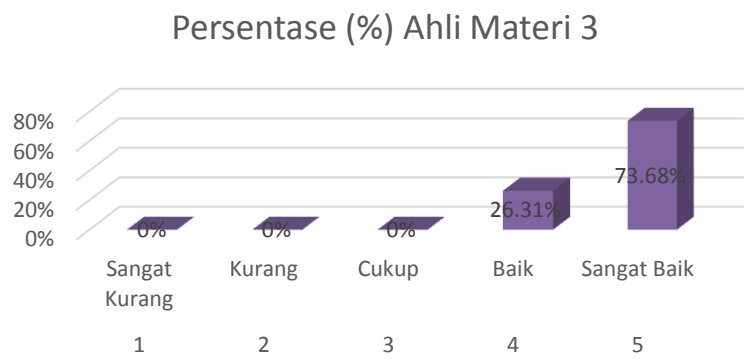


Figure 6. Histogram 6 Percentage (%) Material Expert 3

Based on the statement of the table and histogram above, it can be seen that the validation of material 1 obtained a score with a category that states significantly less with a total of 0 respondents with a percentage of 0%, a category that states a lack of a total of 0 frequency or a percentage of 0%, a category that states a sufficient number of 0 0% frequency or percentage, the category that states well with a total of 5 frequencies or a percentage of 26.31%, a category that states very well with a total of 14 frequencies or a percentage of 73.68%.

Analysis of Material Expert Validation Results 1, 2 and 3

Table 14. Expert Validation Analysis of Materials 1, 2 and 3

No	Aspect Evaluation	Statement	Material Expert 1 Score	Material Expert 2 Score	Material Expert 3 Score
1	**Format**	1. Clarity of Material Distribution	4	4	5
		2. Clear Numbering System	5	4	4
		3. Space/Layout Settings	5	4	5
		4. Font Type and Size Appropriate	5	4	5
2	**Language**	1. Good Grammar	4	4	4
		2. Simple Sentence Structure	4	4	5

		3. Conformity of Sentences with Students' Level of Thinking	5	5	5
		4. Communicative And Easy To Understand	5	5	4
		5. Clear Instructions and Directions	5	4	5
3	**Illustration**	1. Illustration support to clarify the concept	4	5	5
		2. Provide visual stimulation	5	4	5
		3. Have a clear view	4	4	4
		4. Using local context	5	5	5
4	**Contents**	1. The truth/content of the material	5	4	5
		2. Grouped into logical sections	4	4	5
		3. The suitability of learning with the material presented	4	4	5
		4. The suitability of the task with the material	4	4	4
		5. Encourage students to understand	5	4	5
		6. Eligibility as a learning tool	5	5	5
		Total number	**258**		
		Average	**4.77**		

Based on the table data above, it can be explained as follows:

a) The number of statements contained in the assessed aspects amounted to 19 statements.
b) The assessment results obtained from an expert I, expert validation two, and expert validation three consists of a scale of 4 and 5.
c) The results of scale four consists of 27 voters, then the scale chosen is 27 X 4 = 108, so the total score on a scale of 4 is 108.
d) The results of scale five consist of 30 voters, then the selected scale is 30 X 5 = 150, so the total score on a scale of 5 is 150.

e) The average results of media validation were obtained based on the validation results and divided by the total number of statements, namely 258: 54 = 4.77.

The validation results carried out by material experts 1, 2, and 3 show that the material contained in the *application is* included in the VERY GOOD category. Based on this, the material contained in the *application* deserves to be tested. The percentage results of each indicator in the statement in terms of format, language, and illustration, content are as follows:

Table 15. Material Validation Results for Each Indicator

No	Scoring scale	Percentage of Material Expert							
		Format		Language		Illustration		Contents	
		Frequency	%	Frequency	%	Frequency	%	Frequency	%
1	Not good	0	0	0	0	0	0	0	0
2	Not good	0	0	0	0	0	0	0	0
3	pretty good	0	0	0	0	0	0	0	0
4	Well	6	50	7	47	5	42	8	44
5	Very good	6	50	8	53	7	58	10	56
Total number		12	100	15	100	12	100	18	100

Based on the frequency distribution table above, it can be described as follows.

a) Material expert validation consists of four assessment indicators: format, language, illustration, and content indicators.
b) The format indicator consists of 4 statements, the language aspect consists of 5 statements, the illustration aspect consists of 4 statements, and the content aspect consists of 6 statements. The total number of statements in the four aspects of the assessment is 19 statements.
c) Based on the results of the frequency distribution above, it can be seen that in the format assessment indicator, there are six voters on a scale of 4 and 6 voters on a scale of 5. The percentage of the format assessment indicator is calculated through the number of voters on the specified scale

then divided by the total number of frequencies in all aspects. The rating is then multiplied by 100%. The percentage of assessment indicators on a scale of 4 obtained a value of 6: 12 X 100% = 50%. While the percentage of the assessment indicator format on a scale of 5 obtained a value of 6: 12 X 100% = 50%.

d) Based on the frequency distribution results above the language assessment indicator**,** there are seven voters on a scale of 4 and 8 voters on a scale of 5. The percentage in the language assessment aspect is calculated through the number of voters on the specified scale, then divided by the total number of frequencies in all aspects of the assessment and multiplied by 100%. The percentage of language assessment aspects on a scale of 4 obtained a value of 7: 15 X 100% = 47%. While the percentage of language assessment aspects on a scale of 5 obtained a value of 8: 15 X 100% = 53%.

e) Based on the frequency distribution results above the illustration assessment indicator, there are five voters on a scale of 4 and 7 voters on a scale of 5. The percentage on the illustration assessment aspect is calculated through the number of voters on the specified scale, then divided by the total number of frequencies in all aspects of the assessment and then multiplied by 100%. The result of the percentage of the illustration assessment aspect on a scale of 4 obtained a value of 5: 12 X 100% = 42%. While the percentage of the illustration assessment aspect on a scale of 5 obtained a value of 7: 12 X 100% = 58%.

f) Based on the frequency distribution results above the content assessment indicator, there are eight voters on a scale of 4 and 10 voters on a scale of 5. The percentage of the content assessment aspect is calculated through the number of voters on the specified scale, then divided by the total number of frequencies in all aspects of the assessment and then multiplied by 100%. The percentage of content assessment aspects on a scale of 4 obtained a value of 8: 18 X 100% = 44%. While the percentage of content assessment on a scale of 5 obtained a value of 10: 18 X 100% = 56%.

Based on the explanation above, the percentage distribution of the frequency distribution of material expert validation obtained a score on the aspect of the format assessment of 50% on a scale of 4 and 50% on a scale of 5. Then on the aspect of language assessment, a score of 47% was obtained on a scale of 4, and 53% on a scale of 5. Meanwhile, in the illustration assessment aspect, a score of 42% is obtained on a scale of 4, and 58% on a scale of 5.

Furthermore, in content assessment, a value of 44% is obtained on a scale of 4 and 56% on a scale of 5. So when referring to the percentage described, it shows overall validation. Material experts fall into the VERY GOOD category. Then, the material contained in the *application* can and is feasible to be carried out to the trial stage. The following is a histogram of the frequency distribution of material validation:

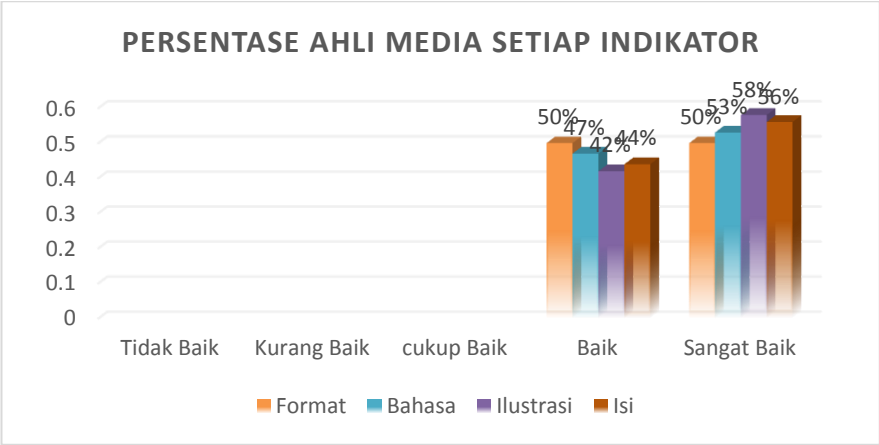


Figure 7. Histogram 7 Percentage of Media Yield Each Indicator

Revision of Media Expert and Material Expert Application Products. Based on the questionnaire data, it can be concluded that the application media is perfect and feasible to be used as research, and there are some inputs/improvements from media experts and material experts.

The first point is (1) a short article in the video, the second point (2) is the video's lighting. In this final draft, the researcher followed expert advice to add a short article, such as the example below:

Table 16. Media Revision

Display of Historic Sites Features in the Application	Short Writing and Addition of Light
	

History learning can be exciting if it is contextualized or takes the surrounding area, for example, through local wisdom. The relationship between the community, students, and the surrounding environment is an example of an excellent source of history learning, local wisdom that becomes an icon in their environment. For more than two decades, ecological studies have emphasized local diversity factors' historical and geographical importance (Hillebrand & Setälä, 2017). This is what makes local history cannot be ignored because it plays an essential role in the nation's foundation. Research in this development media aims to develop the application of local wisdom to the cultural heritage of the Arab and Chinese villages in Palembang as a historical reading medium**.** Furthermore, with the existence of this learning media, it is hoped to help students understand the material provided. In addition, it examines the essential competencies and core competencies in the developed learning media. History learning materials regarding the cultural heritage of Arab and Chinese villages can already be included in KD 3.7. It analysed various theories about entering and developing Islamic religion and culture in Indonesia to learn to identify and analyse the cultural heritage of Arab and Chinese villages. The KD used is following the 2013 Curriculum syllabus in class X in the even semester. From the results above that researchers have obtained, it can be concluded that the application is feasible and attracts students to understand history learning.

Conclusion and Recommendations

Based on the results of research and discussion of learning media development using the above application development based on experts, the authors draw the following conclusions:

1. Based on the description of the frequency of media experts, the percentage in the material assessment indicators is 83% on a scale of 4 and 17% on a scale of 5. In the illustration aspect, the percentage results are 100% on a scale of 5. Then on the media display assessment indicator, the percentage results are 100% on a scale of 4. In contrast, the indicators for assessing the attractiveness of the media obtained a percentage of 75% on a scale of 4 and 25% on a scale of 5.
2. Based on the explanation above, the percentage distribution of the frequency distribution of material expert validation above obtained a score on the aspect of the format assessment of 50% on a scale of 4 and 50% on a scale of 5. Then in the aspect of language assessment, a score of 47% was obtained on a scale of 4, and 53% on a scale of 5. Meanwhile, in the illustration assessment aspect, a score of 42% was obtained on a scale of 4 and 58% on a scale of 5. As well as the aspect of content assessment, a score of 44% was obtained on a scale of 4 and 56% on a scale of 5.

When referring to the percentage described, it shows that the overall validation of material and media experts are included in the VERY GOOD category based on two media experts and three material experts so that with the addition of learning media designed to adapt the material, it can enrich knowledge and provide meaningful learning to students.

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