

## FEASIBILITY OF DAYAK BAKUMPAI COMMUNITY COSMOLOGICAL REFLECTION MODULE

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### Abstract

This study aims to compile teaching materials in the form of modules on local culture courses through the analysis of the structure and meaning of ancient Minangkabau manuscripts. This research is a development research. Research and development models adapted from ADDIE. (1) Research begins by carrying out preliminary observations to look for research findings related to the state of local cultural teaching materials as the product to be compiled. (2) Product development based on research findings, namely analyzing materials about the cosmological reflection of the Bakumpai Dayak people. (3) Conducting field tests on teaching material products in the form of a cosmology reflection module for the Dayak Bakumpai community. (4) Carry out improvements on the suggestions of the material validator and media validator based on the validation results. (5) Furthermore, conducting product trials for students. Information on the results of development research in the form of module validity percentages is obtained based on information from the validator and assumptions obtained based on the validation of material experts and media experts, as well as trials on students that have been carried out. Based on the validation, it can be concluded that the cosmology reflection module of the Dayak Bakumpai people is very feasible and very valid for use in local culture courses.

**Keywords:** Dayak Bakumpai, Feasibility, Cosmology, Module

### Introduction

The rapid development of science and technology in the world of learning so that the demands of the progress of human energy sources are very much needed, and an increase in the quality of learning is also very much needed, something that is not easy work, but it is also not difficult to strive if there is a strong will to make various components of learning that are more effective and efficient.

In the context of the teaching and learning process in Indonesia, the teacher's position is to have a role as a guide, where teachers are required to have the competence to understand and empathize with students who are predicted to have problems in learning, carry out diagnoses, prognoses, are still within the limits of their authority as teachers, are obliged to help provide solutions to problems that exist in students called (Syamsuddin, 2016).

According to Degeng, so that students are interested in learning courses carried out by learning designers based on certain assumptions about learning design, including: (1) Improving the quality of learning begins with learning design, (2) Learning design is based on knowledge of how a person is learning, (3) learning design is referred to the learner, (4) learning outcomes include direct results and accompanying results, (5) the final goal of the design is to make learning easier, (6) learning design includes all variables that affect learning, and (7) The essence of design is to determine the optimal learning method to achieve the set goals. The development of teaching materials that is carried out is able to solve learning problems faced in the field, because it is carried out based on a needs analysis

followed by analyzing problems and determining how to solve, implement and evaluate learning resources as an effort to solve problems (Degeng, 2001).

Teaching materials used for student guidance must be continuously updated in terms of curricular, content, and language to suit the development of knowledge and the curriculum used. The curriculum that often changes in a relatively fast time is a consequence of the needs of the world of education for humans as the subject of work, because it is not necessarily followed by the speed of procurement of textbooks for students.

From this description, lecturers should be able to develop their own teaching materials as another learning resource besides textbooks. Government Regulation Number 19 of 2005 Article 20, that teachers / lecturers are expected to develop learning materials and through Permendiknas Number 41 of 2007 concerning standard processes regulating the planning of the learning process for educators in educational units to develop RPS and teaching materials. All of that must go through several assessment processes. This review process refers to the BSNP book assessment instrument. (PPRI Number 19 concerning National Education Standards, 2005).

Local cultural learning activities still require the development of teaching materials, especially those that are able to improve mastery of the learning materials that have been given so that they are able to accommodate the density of local cultural materials. The obstacles faced by the local culture course are as follows: (1) Students' mastery of the material and competencies expected in the learning process is still lacking. Without complete teaching materials, lecturers will experience difficulties in increasing the effectiveness of learning. Likewise for students, without teaching materials students will experience difficulties in learning. This is due to the relatively broad coverage of the material and students are required to be able to analyze and systemize the material.

As conveyed by a lecturer who teaches local culture courses (FL), the process of analyzing and disseminating a material requires a lot of time because it is closely related to the large amount of literature and knowledge that must be possessed. (2) there is still a lack of literature on the local culture especially for the Dayak Bakumpai community. (3) The learning process in local culture courses is still done by presenting the data verbally, where the lecturer teaches the class by delivering a number of materials for the learners to learn. This verbal presentation is not in accordance with the learning objectives to be achieved in local culture courses. (4) There is still a lack of references to the Bakumpai Dayak community, making it difficult to prepare local culture teaching materials.

Based on the above background, the importance of developing teaching materials as a reference related to local culture. According to Molenda (2008) research like this is included in the definition of creating / creating. This research was conducted to complement the shortcomings in previous research conducted by Jasiah (2019), Ira (2012), Pratiwi (2018), Hermawan (2016), Lamazi (2015), Sunarti (2017), Shamsudin et al., (2018), and Hartoyo (2012).

## **Method**

The development model used is the ADDIE model with five stages, namely a. Analysis of teaching material needs, namely to collect information on teaching materials used in local culture courses, literature review, observation of the learning process in class, identify problems encountered in learning, and identify problems. b. Design, create flowcharts and storyboards, c. Development; d. implementation and e. Evaluation. While the data collection instruments in this study were in the form of data recording sheets for the analysis of cosmological reflection of the Bakumpai community and expert validation sheets, observation sheets, student response questionnaires, and interview guidelines. The data recording sheet is used as a document resulting from the analysis and interpretation of the cosmological reflections of the Bakumpai Dayak people. The validation sheet is used to obtain initial data

on local culture teaching materials by experts. Observation sheets are made based on local cultural learning. Questionnaires in the form of questions to students about their responses, attitudes, and responses to learning using the teaching materials developed. Interview guidelines are structured to explain things that are not clearly observed during observations and documents and make it easier for researchers to conduct questions and answers about how students respond to learning using modules. implementation of data collection, among others: distributing a needs analysis questionnaire to students of the Madrasah Ibtidayah Teacher Education Study Program who are currently taking local culture courses; RPS analysis; identify the availability of teaching materials, analyze the cosmology of the Dayak Bakumpai people; preparation of teaching materials; as well as the validation process by material and media experts. To find out the feasibility of the product being developed, it was carried out.

#### *Expert validation*

The product to be tested must be validated to material experts related to the results of the analysis of local cultural teaching materials. Furthermore, to teaching material experts who can provide an assessment of the structural and component appropriateness of teaching material products. The results of the validation were made adjustments and improvements to be tested as local culture teaching materials.

#### *Individual trial*

Individual trials were carried out on 2 students with the aim of obtaining limited empirical evidence about the feasibility of the initial product. The trial results will be analyzed to revise the product.

#### *Small group trials*

The next stage after the product was revised based on one-on-one trials was a small group trial consisting of 10 students.

#### *Large group trials*

The data analysis technique used in the research on the development of teaching materials in the form of a cosmological reflection module for the Dayak Bakumpai community was to use qualitative and quantitative data analysis. The data analysis technique for the feasibility of the module is carried out in the following steps:

1. Tabulate all data obtained from the validators for each component, a sub-component of the assessment items available in the assessment instrument.
2. Calculating the total average score of each component using descriptive statistics. The formula used is:

$$P = \frac{x}{xi} \times 100\%$$

Information:

P = Percentage of each criterion x = score for each criterion

xi = maximum score for each criterion

The results obtained from the formula above will be referred to the eligibility criteria for teaching materials (Table 1) to determine the feasibility of teaching material products in the form of modules.

Table 1. Eligibility Criteria for the Bakumpai Dayak Community Cosmology Reflection Module

Scale (%)	Eligibility Criteria
<b>85-100</b>	<b>Eligible with the title very good</b>
<b>65-84</b>	<b>Eligible with the title very good</b>

45-64  
0-44

Eligible with the title sufficient  
Not feasible

## Result

To determine the feasibility of this module teaching materials, the process begins with the development of teaching materials by following the stages of the addie learning model. The addie model development procedure uses five stages of development as follows: analysis, design, development, implementation and evaluation. The stages of developing this module can be described, namely:

### a. Analysis

The results of observations at the State Islamic Institute (IAIN) Palangkaraya note that there is no teaching material for local culture courses in the form of modules on the cosmology reflection material of the Bakumpai Dayak people. The results of discussions with lecturers in local culture courses indicated that teaching materials were needed because very few references were used. The references used as teaching materials in local culture courses were very few, especially the material that discussed the Bakumpai Dayak community. To fulfill these teaching materials, it is necessary to arrange the teaching materials.

The results of discussions with material experts and design experts in local culture courses were successful in formulating suggested material content to be developed in local culture courses. The achievement of learning objectives is to provide opportunities for lecturers and students to explore the phenomena of community life in various regions in Indonesia which generally have their respective customs and cultures or are often known as local cultures. Local culture courses are very much needed as a cultural inheritance to the younger generation so that they love culture as a national asset that is preserved and must be preserved. Based on the results of discussions with lecturers in the local culture subject, it was found that the curriculum applied was the Indonesian National Framework Curriculum (KKNI). However, the preparation of the Semester Learning Plan (RPS) is not yet fully in accordance with the KKNI. In addition, there are very limited supporting teaching materials for local culture courses and it has not been done to develop teaching materials, this is because of the busy activities of lecturers who teach courses as well as concurrent positions as structural officials so that the available time is divided to carry out structural tasks and also as a teaching staff. Based on the results of a questionnaire to IAIN Palangkaraya students, it can be seen in Figure 1 below.

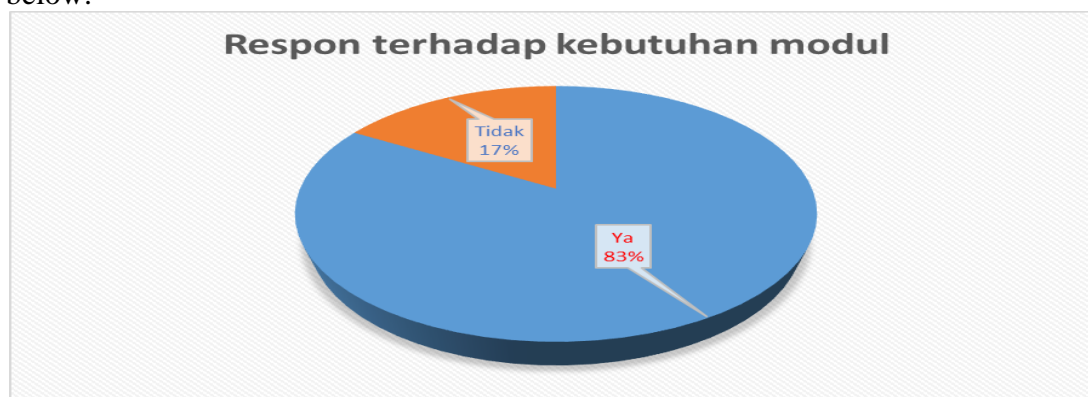


Figure 1 Response to Module Needs

Based on the results of the graph above, as many as 83% of UPR, UMP and IAIN students in Palangka Raya City need modules for local culture courses as independent teaching materials that they can use on their own. Meanwhile, 17% of students stated that

they were able to understand the material without the need for modules because they were better able to understand directly from lecturers' explanations. In addition to the analysis of module needs, student character analysis was also carried out including gender, age, regional origin, ethnicity, residence for female students with a percentage of 74.30% and male students as much as 25.70%. Student ages range from 18 years to 25 years. 70% of the student residences are around the campus because they come from outside the region, as from where 80% of the students come from outside the city of Palangka Raya. While the terms vary as in the following diagram.

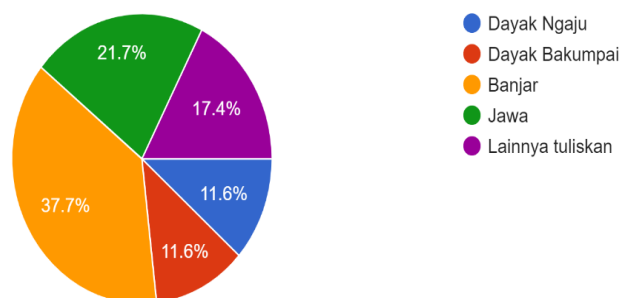


Figure 2 Student Character Based on Tribe

Based on the results of figure 2 above, it shows that many students of IAIN Palangka Raya come from the Banjar tribe with a percentage of 37.7%, while the Dayak ngajuk and bakumpai tribes are 11.6%, some students come from outside Kalimantan with a percentage of 21.7%. This shows that IAIN Palangka Raya students come from different tribes, most of which come from outside the Dayak tribe, so that local culture courses, especially for the Dayak Bakumpai material, are very important for students so that they do not only know the customs or culture of their own tribe. Furthermore, analyzing the curriculum content on the reflection of the cosmology of the Bakumpai Dayak people in Central Kalimantan, including the learning process which refers to the Regulation of the Minister of Education and Culture concerning National Higher Education Standards No.3 of 2020. Learning outcomes include aspects of attitudes, knowledge and skills. Learning outcomes in local culture courses can be observed in table 2 below.

Table 2 Learning Outcomes

Aspect	Learning Outcomes
Attitude	1. Have a good and correct moral and ethical attitude through the doors of local culture both orally and in writing as a Central Kalimantan Bahadat person
	2. Having an attitude of love for the Nation and the State through love for local culture as a national identity
	3. Respect regional culture (as a barn and foundation of Indonesian culture) as a form of National Unity
	4. Appreciate local literature and culture
Knowledge	1. Have functional knowledge about the local culture of Central Kalimantan
	2. Have the ability to analyze local culture
	3. Have scientific ability in the application of oral and written moral
	4. Have a regional-based Indonesian insight
Skills	1. Skilled in presenting good and correct local and Indonesian culture
	2. Skilled in collecting and cultivating local cultural works
	3. Able to describe local culture in the form of research
	4. Able to adapt well with local / regional communities
	5. Able to make local culture analysis
	6. Able to become a mentor for local cultural association as a national asset

Next, conduct material analysis, namely the preparation of material based on the learning outcomes that students will have as stated in the RPS. The material to be

compiled is a reflection of the cosmology of the Bakumpai Dayak people in Central Kalimantan. The preparation of this material is based on studies from various learning sources including books, scientific papers, research results and articles. This research instrument has been validated by material experts. The results of the validation state that the research instrument is feasible to use.

#### **b. Design**

The design of this development research is carried out by designing teaching materials in the form of modules based on the analysis that has been carried out, namely:

- a) Determine the network of themes contained in the Semester Program Plan (RPS). At this stage the researchers chose the topic of cosmological reflection of the Bakumpai Dayak people in Central Kalimantan.
- b) Learning activities starting from opening activities, core activities and closing activities, learning methods using the lecture method, interactive discussion
- c) Designing the module, starting with an idea or ideas by looking at the topic set out with the module title, the target students, the purpose of using the module, then designing the material based on the cosmological reflection of the Bakumpai Dayak people in Central Kalimantan, learning indicators, and learning objectives. Each stage always consults the experts and revises the module draft based on input from material experts, design experts.
- d) The results of the validation from the design expert on the first assessment with a mean value of 4.28 with a good category, with expert recommendations can be used with minor revisions. The second design expert's assessment with a mean score of 4.85 with a very good category with design expert recommendations can be used without revision.

#### **c. Development**

This stage is the process of creating a cosmological reflection module for the Bakumpai Dayak people in Central Kalimantan. The first step, in the development of teaching materials in the form of modules, a flowchart is made to design workflows or information processing flows. The purpose of this flowchart is to make it easier to understand the product development process in the form of a module. In the second step, it is followed by making a module based on the storyboard and design that has been made. The third step is to enter related materials in the form of materials and designs and consult with material experts and design experts. The fourth step, namely creating and printing modules by referring to the stages according to the specific development of a reflection-based module development on the Cosmology of the Dayak Bakumpai people in Central Kalimantan as a teaching material used in learning local culture courses at universities and subjecting expert judgment and the media.

After the module is declared feasible, then to find out the effectiveness of the module, it is necessary to do trials. The trial was carried out on students with three trial treatments, namely to 2 students, 10 people and trials to 30 students.

#### **d. Implementation**

After the local culture teaching materials in the form of modules that have been declared feasible by the material validator and media validator are then tested on students. The trials were carried out on students with three trial treatments, namely to 2 students, 10 people and trials to 30 students. Implementation of product trials is carried out by observing students.

#### e. Evaluation

This evaluation stage is carried out to find out whether the target in planning has been achieved or to compare the realization results with the planning target and to find out the obstacles identified in the entire process of developing this teaching material. The purpose of evaluation is to determine the achievement of an activity planning and find a solution to a problem.

The implementation of the ADDIE model through systematic stages can help lecturers in preparing an efficient, practical and attractive learning program. Likewise, in the development of teaching materials for local culture courses in the form of modules based on the cosmological reflection of the Bakumpai Dayak people in Central Kalimantan, an evaluation was carried out based on the assessment sheet in the form of an instrument that had been reviewed by the material validator and the media validator. After the instrument is said to be feasible by the material and media expert validator, the products are arranged according to the guidelines and are ready to be used for local culture courses.

To measure the validity and reliability of teaching materials in the form of modules based on the cosmological reflections of the Bakumpai Dayak people in Central Kalimantan which have been compiled referring to the guidelines for the preparation of teaching materials and have been validated by material validators and media experts. Validators validate to determine the quality of teaching materials that have been compiled based on stages through precision and accuracy to the quality of both the material and the design of the teaching materials.

The elaboration of the results of the feasibility of developing teaching materials for modules for local culture courses based on the cosmological reflection of the Bakumpai Dayak people in Central Kalimantan is described as follows:

##### *Material Expert*

The material developed in the local culture course is a reflection of the cosmology of the Bakumpai Dayak people in Central Kalimantan as stated in the law on Cultural Advancement, which states that the state is obliged to inventory, maintain and maintain traditional cultural expressions and their use must pay attention to the values that live in the society of its carriers. .

Validation carried out by cultural material experts on the module material is declared feasible, both in terms of the stage where the researcher submits the SAP, and the material to be taken, then an initial assessment and suitability of the material is carried out as a whole and scientifically.

After being matched and adjusted to the conditions and culture of the area, the material was rearranged. Material validation is carried out on the following aspects: a. Suitability of the material with the Lecture Program Unit. b. The suitability of learning objectives with the content of the material. c. The truth of the material concept d. Material contextuality. e. Suitability of the module title with the material. f. Explanation of material descriptions and examples. g. The conciseness of the presentation of the material. The suitability of the material with student characteristics. Ease of understanding the material. Material appeal. The results of data analysis regarding the assessment of material experts on the first validator can be seen in the following table.

Table 3 Material Expert Assessment of Modules

No	Indicator	Question Points	Average value	%	Mention
1	According to the material with SK and KD	3	4.30	86	Very good
2	Accuracy of Material	8	4,25	85	Very good
3	Supporting Learning Materials	6	5.00	100	Very good
4	Material up-to-date	3	4.00	80	Good

5	Presentation Technique	2	4.00	80	Good
6	Serving Support	8	4.75	95	Very good
7	Presentation of Learning	1	5.00	100	Very good
8	Completeness of Serving	3	4.00	80	Good
9	Straightforward	3	4.30	86	
10	Communicative	2	4.50	90	Very good
11	Dialogical and Interactive	2	5.00	100	Very good
12	Suitability with the level of student development	2	5.00	100	Very good
13	Cluster and coherence of thought lines	2	4.00	80	Very good
14	Use of terms, symbols or icons	2	4.00	80	Good
<b>Total</b>		<b>47</b>	<b>4.08</b>	<b>81.6</b>	<b>Very good</b>

In table 3, the material expert's assessment for module validation on the aspect of content feasibility consists of 4 indicators with 20 items and the presentation feasibility aspect consists of 4 indicators with 14 items and the language assessment aspect consists of 6 indicators with 13 items. For the aspect of material assessment, there are 47 items and 4.08 assessment results and the conversion level of achievement is 81.6%, very good category with material expert recommendations can be used with minor revisions Some suggestions related to improving the learning design are as in Table 4.

Table 4 Results of the Review of the Material

No	Before the Revision	After the Revision
1	In context, the material is not fully based on the Cosmological Reflections of the Bakumpai Dayak cultural community	The contextual material is based on the Cosmological Reflections of the Bakumpai Dayak cultural community
2	The clarity of the material with examples is not yet complete	The clarity of the material includes a description of the material and examples
3	The clarity of the presentation of the material is not completely coherent	The material is coherent
4	The ease of understanding the material is not yet complete	The material is easy to understand

The material expert gave an assessment that the aspects of the learning material that had been compiled as a whole were of very good quality and were suitable for use with minor revisions. The results of data analysis regarding the evaluation of material experts on the revised material are as in table 5.

Table 5 Expert assessment of material 2 of the Module

No	Indicator	Item	Average	%	Category
1	According to the material with SK and KD	3	5	100	Very good
2	Accuracy of Material	8	4,75	95	Very good
3	Supporting Learning Materials	6	5.00	100	Very good
4	Material up-to-date	3	5.00	100	Very good
5	Presentation Technique	2	5.00	100	Very good
6	Serving Support	8	5.00	100	Very good
7	Presentation of Learning	1	5.00	100	Very good
8	Completeness of Serving	3	5.00	80	Good
9	Straightforward	3	4.60	92	Very good
10	Communicative	2	4.50	90	Very good
11	Dialogical and Interactive	2	5.00	100	Very good
12	Suitability with the level of student development	2	5.00	100	Very good
13	Cluster and coherence of thought flow	2	5.00	100	Very good
14	Use of terms, symbols or icons	2	4.50	90	Very good
<b>Total</b>		<b>47</b>	<b>48.7</b>	<b>97.4</b>	<b>Very good</b>

In table 5, the validator's assessment of the module that has been revised is very good with a value of 48.7 (97.4%) and there is no need for revision with expert recommendations, the material can be used without revision. The material expert gave an



assessment on instrument 2 that the aspects of the learning material that had been compiled as a whole had very good quality and were feasible to use without revision. To find out the comparison of the first and second assessments as in Figure 3.

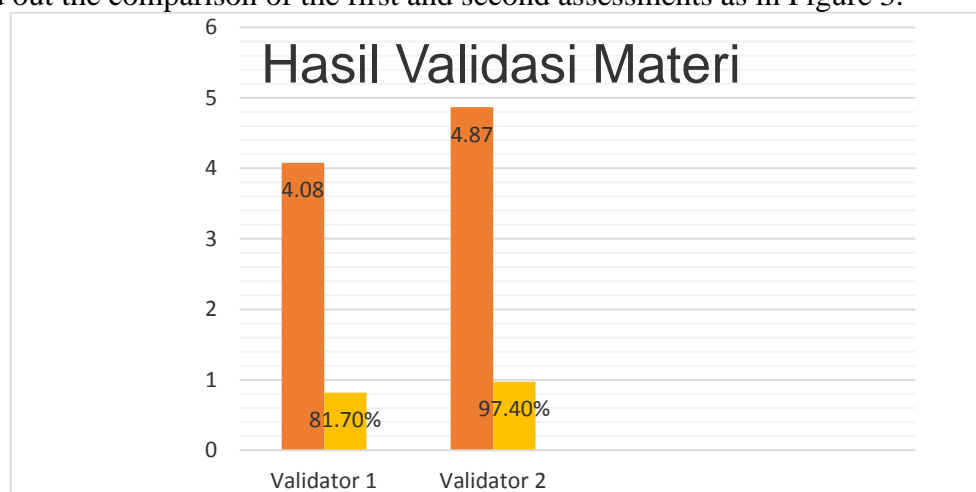


Figure 3 Material Validation Results

The diagram above shows the results of initial product validation by material experts and product validation after repairs. The results of initial product validation with a percentage of 81.70% are very good categories. With the lowest scores on the indicators of material updating, presentation techniques, coherence and flow of thought integration, and use of terms, symbols, or icons with a percentage of 80%. According to the criticism and suggestions of material experts on these indicators, there are deficiencies because the material context is not entirely based on the Cosmological Reflections of the Bakumpai Dayak cultural community, the clarity of the material with incomplete examples, the clarity of the presentation of the material is not completely coherent, and the ease of understanding the material is not yet fully. Then after revising according to advice and input from material experts, indicators of up-to-date material, presentation techniques, coherence and integration of thought lines, the percentage increased to 100%. Indicator The use of terms, symbols or icons becomes 90%. With such results, it states that the suggestions and input of the material experts have a very feasible influence which will be used for the development of the material in the module. Other indicators also increased the percentage from initial product validation to product validation after revision to 97.40%.

### Design Expert

The results of the module design validation refer to the Semester Program Plan (RPS) with the RPS components being developed including: subject identity, course description, graduate learning outcomes, description of learning plans, sub-CPMK and indicators, study materials, learning methods, assignment time and assessment. The reference is then reviewed by a design expert. Module validation is carried out by a design expert filling out an assessment sheet with 50 indicators. The results of the module validation carried out by the validator are as in Table 6.

Table 6 Validation of Design Experts

No	Indicator	Score	%	Mention
1	Compliance of column format with paper shape and size	5	100	Very good
2	The accuracy of using a single column is proportional	5	100	Very good
3	The conformity of the paper format used with the typing location	5	100	Very good
4	The accuracy of the paper format used (B5) with the typing layout	5	100	Very good
5	The accuracy of the signs (icons) used for important / special matters	4	80	Good
6	Accuracy of icon placement	5	100	Very good

7	The availability of a coverage section of all material in the module	5	100	Very good
8	The material coverage is easy for students to understand	4	80	Good
9	Systematic sequencing of material	5	100	Very good
10	The regularity of organizing the material makes it easier for students	5	100	Very good
11	The accuracy of the script placement	5	100	Very good
12	Easy to understand pictures and illustrations	5	100	Very good
13	The order of chapters, units and paragraphs is easy for students to understand	5	100	Very good
14	Suitability of sequence between chapters, units and paragraphs	4	80	Very good
15	Cluster of titles, subtitles, and descriptions	5	100	Very good
16	Matching order of titles, subtitles, and descriptions	5	100	Very good
17	The correct combination of colors, images and letters on the front cover	5	100	Very good
18	Cover layout accuracy	4	80	Good
19	The accuracy of stimuli is in the form of pictures and bold letters	5	100	
21	The accuracy of student assignments is made interesting	5	100	Very good
22	The accuracy of the language in the simple and easy to understand part of the student assignment	4	80	Very good
23	Readability of the font size on the front cover	5	100	Good
24	Readability of the font size on the module side	5	100	Very good
25	Readability of the font size in titles and subtitles	5	100	Very good
26	The accuracy of the comparison of the letters used	5	100	Very good
27	Accuracy of the comparison of letters on the front cover and the contents of the module	5	100	Very good
28	The entire text is not capitalized	4	80	Very good
29	The accuracy of using capital letters	5	100	Very good
30	Matching blank spaces to give pause to students	5	100	Very good
31	The accuracy of the scorched space in providing an important note	5	100	Very good
32	Matching blank spaces in modules	4	80	Very good
33	Regular white space between lines, paragraphs, and sub-headings is sufficient	5	100	Very good
34	The order in which letters are used on each page	5	100	Very good
35	Regularity of the font size used on each page	4	80	Very good
36	Regular spacing between paragraphs	5	100	Good
37	Regular spacing between lines	5	100	Very good
38	Regularity of the design format of each chapter	5	100	Very good
39	The regularity of margins / outlines to be used	5	100	Very good
40	Appropriate image display size	4	80	Very good
41	Consistency of image display size	5	100	Good
42	Image size suitability	5	100	Very good
43	Clarity of use of images	5	100	Very good
44	The accuracy of using the background in the text	5	100	Very good
45	The accuracy of using the background in the image	5	100	Very good
46	Use of color in images	5	100	Very good
47	The suitability of using colors in the image	5	100	Very good
48	The correctness of color combinations in the media	4	80	Very good
49	Clarity of illustration	5	100	Good
50	The accuracy of the illustrations used	5	100	Very good
<b>Total</b>		<b>4.76</b>	<b>95.2</b>	<b>Very good</b>

Table 7 shows that the design expert's assessment with a mean value of 4.76 (95.2%) with very good qualifications. In conclusion, the local culture course module based on the reflection of the Bakumpai Dayak community is suitable for use as teaching material for local culture courses.

## Discussion

This research produces a product in the form of a local culture course module based on the cosmological reflection of the Bakumpai Dayak people in Central Kalimantan which can be used as printed teaching materials for students. This research refers to the development of

the ADDIE model. This ADDIE model has steps that are appropriate for the development of a product because to develop a product you must pay attention to its feasibility and effectiveness. This development model is more rational, simple, easy to learn and more generic in nature. This model can be used for various kinds of product development of learning strategies, learning methods and teaching materials (Branch, 2009). The ADDIE model development uses five stages, namely analysis, design, development, implementation and evaluation (Zamri et al., 2019), (Cahyadi, 2019), (Cheung, 2016), (Trust & Pektas, 2018).

### *Analysis*

In this study, the stages of analysis carried out included analysis of the needs for module teaching materials through interviews with lecturers and student questionnaires that stated 83% needed modules. This is in accordance with research on the analysis of the needs for teaching materials in local culture courses showing the need for teaching materials (Jasiah, 2019). Furthermore, student character analysis is carried out that the development stage is at the age of 18 to 25 years (Muri'ah & Wardan, 2020). (Narullita, 2019), (Hasrita, 2010), (Narullita, 2019). Analysis of curriculum content is only on the reflection of the cosmology of the Bakumpai Dayak community, including the learning process which refers to the Regulation of the Minister of Education and Culture concerning National Higher Education Standards No.3 of 2020. Learning outcomes of courses include aspects of attitude, knowledge and skills.

### *Design*

The teaching material design that will be developed is a local culture course module. The manufacture of the product is based on the design and storyboard that has been made.

### *Development*

This stage is the process of creating a cosmological reflection module for the Bakumpai Dayak people in Central Kalimantan. The first step is to create a flowchart for the design of a workflow or information processing flow, the second step is to compile a module design based on the storyboard and design that has been made. The third step, enter the related materials and consult with material experts and design experts. The fourth step, namely making modules by referring to the stages according to the requirements. Furthermore, expert validation is carried out on the material and design. According to Seel, activities in developing a teaching material require expertise in translating the content of learning messages into a tangible form of teaching material, presented in the form of media (Seels & Richey, 1994).

The Bakumpai Dayak community's cosmological reflection module as a teaching material has met the orientation of the Learning design model based on its main focus, namely (a) a classroom orientation, (b) an instructional product orientation, and (c) an instructional system. In Product Models, the models of Bergman and Moore and Van Patten are exemplified (Purwanto, 2004).

### *Implementation*

The implementation stage, the module was tested on students with 2 trial treatments to 7 students and 30 students. Implementation of product trials is carried out by observing students. The structure of this module complies with the procedures and rules. This creative module can be seen on the cover and is interesting because it includes pictures that make students happy reading this module. This module contains materials that provide the latest information and are based on the latest research results as well as sourced from articles and scientific papers.

This module has met the standard as a teaching material because it has been in accordance with the general structure as a teaching material which includes components,

namely the title of the Bakumpai Dayak community's cosmological reflection module, the material on the origin of the Dayak Bakumpai, the development of the life of the Bakumpai Dayak people, the typical weapons of the Dayak tribe and the various cultures of the community. Dayak Bakumpai. This is in accordance with the standards set by the Ministry of National Education, the structure of teaching materials includes seven components, namely titles, study instructions, basic competencies or main materials, supporting information, exercises, assignments or work steps, and assessments (Depdiknas, 2008).

### *Evaluation*

The stages in the development of the ADDIE model can run smoothly if the planning is arranged optimally and correctly so that it will arrive at the final stage, namely the evaluation stage. Evaluation is to find out whether the targets in the planning have been achieved or to compare the realization results with the planning targets and to find out the obstacles identified in the entire process of developing this teaching material. The purpose of evaluation is to determine the achievement of an activity planning and find a solution to a problem.

The implementation of the ADDIE model through systematic stages can help lecturers in developing an efficient, practical and attractive learning program. Likewise, in the development of teaching materials for local culture courses in the form of modules based on the cosmological reflection of the Bakumpai Dayak people in Central Kalimantan, an evaluation was carried out based on the assessment sheet in the form of an instrument that had been reviewed by the material validator and the media validator. After the instrument is said to be feasible by the material and media expert validator, the products are arranged according to the guidelines and are ready to be used for local culture courses.

To measure the validity and reliability of teaching materials in the form of modules based on the cosmological reflections of the Bakumpai Dayak people in Central Kalimantan which have been compiled referring to the guidelines for the preparation of teaching materials and have been validated by material validators and media experts. Validators validate to determine the quality of teaching materials that have been arranged based on stages through precision and accuracy of quality both in material and design. teaching materials. The test characteristics developed in addition to expert validity are also related to construct validity. This validity aims to assess the ability of the test to interpret a meaningful measure of a number of characteristics, by examining the construct-related theories measured by the developed test (Ismet Basuki & Haryanto., 2014). The Cosmology Reflection Module for the Bakumpai Dayak people in Central Kalimantan is feasible as a teaching material based on the guidelines for developing teaching materials published by the Ministry of National Education with the following criteria. (1) the feasibility of the content (subject matter), (2) language, (3) presentation, (4) graphical and proven from the validation results of material experts and media experts, the results of the feasibility test for teaching materials for local culture course modules are based on the validation results. material experts and media experts that the cosmology reflection module of the Bakumpai Dayak people in Central Kalimantan as a teaching material is suitable for learning in local culture courses.

### **Conclusion**

Based on the stages of the research carried out, it can be concluded that integrating the results of the analysis of the cosmological reflection of the Bakumpai Dayak people is a form of documentation and cultural preservation in learning local culture. The integrated module provides teaching material, especially the reflection of the cosmology of the Bakumpai Dayak community. Teaching materials in the form of developed modules are expected to increase students' understanding and mastery of local culture. In addition, based on the results of the development of teaching materials, it has produced a product in the form of a reflexic cosmology module for the Dayak Bakumpai people that is valid and suitable for use in local culture courses. The results of the validation of the Dayak Bakumpai community cosmology reflection

module according to material and media experts are in the feasible category with very good predicates (material is 97.4% and 95.2% for media aspects) The preparation of teaching materials must be directed to arouse student motivation to study independently and study it, one of the efforts is to compile e-modules.

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