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23 - 24 September 2019
Garuda Plaza Hotel - Jlm. Sisingamangaraja No. 18
Medan, North Sumatra - Indonesia



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Rundown of The 4th Annual Internationaal Seminar on Transformative Education and Educational Leadership (AISTEEL) 2019

Garuda Plaza Hotel, Medan, 23 – 24 September 2019

1st day (Monday, September 23, 2019)

Time	Activities	PIC
15.00 – 20.00	Registration in Garuda Plaza Hotel	committee

2nd day (Tuesday, September 24, 2019)

Time	Activities	PIC/Moderator
07.00 - 08.30	Poster Sessions 1	Section Poster 1
08.30 - 09.00	Opening Ceremony 1. MC Speech 2. Traditional Welcome Dance 3. Indonesian National Anthem 4. Pray 5. Chairperson Report 6. MoU signing between Unimed and PSU - Thailand 7. Welcoming speech of Director of Postgraduate School 8. Welcoming speech and official opening of Rector of State University of Medan	MC
09.00 - 09.40	Plenary Lecture 1: Prof. Dr. Syawal Gultom, M.Pd (State University of Medan– Indonesia)	Moderator Section
09.40 - 10.25	Plenari Lecture 2 Prof. W. L. Quint Oga-Baldwin (Department of Education, Faculty of education and Integrated Art and Sciences, Waseda University - Japan)	Prof. Amrin Saragih, PhD (Panel)
10.30 – 11.15	Plenari Lecture 3 Prof. Dr. Wu-Yuin Hwang (Graduate Institute of Network Learning Technology National Central University, NCU - Taiwan)	
11.15 – 12.00	Plenari Lecture 4 Prof. Dr. Ekkarin Sungtong (Dean of Faculty of Education Prince of Songkla University - Thailand)	Mangara Simanjorang, PhD (Panel)
12.00 – 12.45	Plenari Lecture 5 Asst. Prof. Patcharin Panjaburee, Ph.D.(Mahidol University – Thailand)	
12.45 – 13.30	Lunch Break/ Poster Sessions 2	Section Poster 2
13.30 – 15.30	Parallel Session 1	
15.30 – 16.00	Break/ Poster Sessions 3	Section Poster 3

15.50 – 18.00	Parallel Session 2	Moderator/Operator
18.00 – 19.00	Break/ Prayer	
19.00 – End	Banquet (Gala Dinner) - Announce of Best Presenter - Announce of Best Poster	Consumption Section



Proceedings of the 4th Annual International Seminar on Transformative Education and Educational Leadership (AISTEEL 2019)

Preface

The 4th Annual International Seminar on Transformative Education and Educational Leadership (AISTEEL 2019) was held in Garuda Plaza Hotel, Medan City-Indonesia on 23-24 September 2019. This seminar is organized by Postgraduate School, Univesitas Negeri Medan and become a routine agenda at Postgraduate program of Unimed now.

The AISTEEL is realized this year with various presenters, lecturers, researchers and students from universities both in and out of Indonesia participating in, the seminar with theme "Education, Learning and Leadership Innovation."

The plenary speakers coming from various provinces in Indonesia have been present topics covering multi disciplines. They have contributed many inspiring inputs on current trending educational research topics all over the world. The expectation is that all potential lecturers and students have shared their research findings for improving their teaching process and quality, and leadership.

The fourth AISTEEL presents a keynote speaker and 4 distinguished invited speakers from Indonesia, Japan, Taiwan, and Thailand. In addition, presenters come from various Government and Private Universities, Institutions, Academy, and Schools. Some of them are those who have sat and will sit in the oral defence examination.

There are 310 articles submitted to committee, some of which are presented orally in parallel sessions, and others are presented through posters. The articles have been reviewed by double blind reviewer and 172 of them were accepted for published by Atlantis Press indexed by International Indexation and 96 papers are published by digital library indexed by google scholar.

The Committees of AISTEEL invest great efforts in reviewing the papers submitted to the conference and organizing the sessions to enable the participants to gain maximum benefit.

Grateful thanks to all of members of The 4th Annual International Seminar on Transformative Education and Educational Leadership (AISTEEL 2019) for their outstanding contributions. Thanks also given to publisher for producing this volume.

The Editors

Bornok Sinaga Rahmad Husein Juniastel Rajagukguk

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Uswatun Hasanah



Development of Thematic Teaching Materials Based on Local Culture at The Fourth Grade of Primary Schools in North Padang Lawas District

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Abstract—The purpose of this study was to develop thematic teaching materials based on local culture on theme 6 namely My Ideals of sub-themes 2. My Great Ideals. This type of research was development research (R & D). The research model used was the research design model for developing 4-D (Four D Models), consisted of four stages, namely the definition, design, develop and disseminate by Thiagarajan. The subjects of this study were the fourth grade students of SDN 103014 Batang Baruar Julu, SDN 101130 Purba Sinomba and SDN 100930 Sibatang Kayu totaling 72 students and objects of thematic research based on local culture. The instruments used were validation sheets, student responses, and learning outcomes tests. The results showed that: (1) the instructional materials developed were valid to use, (2) the instructional materials developed were considered to be effective in terms of classical student learning outcomes. It was suggested that local culture-based thematic teaching material was a tool to assist in the process of delivering learning, the existence of teachers was still very much needed as a facilitator and students remain actively involved in the learning process.

Keywords—Development of Teaching Materials; Local Culture; Learning Outcomes.

I. INTRODUCTION

Education has an important role in improving the progress of a nation. Various nations in the world place the education sector as the front guard in development priorities. Education was one way to grow the will, ability, talent and self-potential possessed by students (Purwanto, 2011:10). Susanto (2014: 1) argued that education was essentially a learning process that led a person to become a human being who was able to control himself and explore his potential and was able to see and analyzed reality around him.

In accordance with the opinion that has been presented, right on to education that emphasizes an outcome to create a generation that has high competency, talent, self potential that can give great contribution to the country. In line with the implementation of the 2013 curriculum that learning

in schools emphasizes aspects of learning experiences that are in accordance with the interests and talents of students.

Thematic learning as including one type / kind of in the form of an integrated learning. The term thematic learning is basically integrated learning that uses themes to associate several subjects so that it can provide meaningful experience to students (Ministry of National Education, 2006: 5). Learning that is synergistic in creating interesting learning for students, like the theme in this elite is the theme six "My Ideas" in the fourth grade of Elementary School there were Basic Competencies in which the study of Indonesian, Social Science, Natural Science, Civil Science and Cultural Art and Vocational Subjects were included. In this case the formal education has an important role in the development, namely with conducting a high quality learning by making the appropriate instructional materials used in the process of learning.

Local wisdom is very important considering that the learning process that occurs in the classroom, especially for elementary school students, should begin with the closest world or often encountered by students. The values of local wisdom will help students to understand each concept in the material so that the knowledge gained by students is not only limited to knowledge, but can also be implemented by students in pre-physical form outside the school (Akbar, 2015: 94). From various explanations regarding the values of local culture, local cultural values of the local area can be integrated into learning, so that students were able to learn according to their experiences in everyday life.

From the various descriptions above, it can be concluded that it was required thematic textbooks based on local culture were books systematically and facilitate the learning process. The book was developed from basic competencies shaded by a theme, related to the real life

context of students and their environment, and used by students in learning to make learning more meaningful.

Because if learning was not inherent in the local culture, it would create new problems in the future, it seemed clear that many young people did not know the culture of their own region and when foreign countries claim then a demand has just taken place. Something that were very worried about in the future, therefore this research was raised regarding teaching materials based on local culture.

II. RESEARCH METHOD

The development of teaching materials based on local culture used a 4-D development model from Thiagarajan et al (1974) in Sugiono (2017: 37-38). Model 4-D consisted of four stages, namely definition design, develop, and disseminate.

This development model was used because the steps of the model can provide clear, easy to understand, systematic directions and in accordance with the teaching material development model.

This research was carried out at SDN 103014 Batang Baruar Julu, SDN 101130 Purba Sinomba and SDN 100930 Sibatang Kayu located in the Padang Bolak Subdistrict, North Padang Lawas Regency. Research conducted at the second semester of 2018/2019 academic year during the learning theme six My Goal subtheme 2 The Greatness of My Goal.

The subject of this research was class IV students who were at each SDN 103014 Batang Baruar Julu, SDN 101130 Purba Sinomba and SDN 100930 Sibatang Kayu 2018/2019 academic year as many as 72 people. The object in this research was teaching material products in the form of student books developed based on local culture.

The procedure for developing teaching materials was carried out and adapted from the Thiagarajan development model. The research model used in this research was the development of research design *Four D Models*, which consisted of four phases: *define*, *design*, *develop*, and *disseminate*.

Data analysis techniques used were validation, rehabilitation and effectiveness. With the fulfillment of all these requirements, the product developed was entered in eligible criteria.

III. RESULTS AND DISCUSSIONS

A. Result

Validation of the questions was analyzed by using the formula of the correlation with the correlation of the scores on

the items with the total score processed using *Microsoft Excel* in the attachment to the calculation section of the question. After testing the product trials the level of completeness of students reached 88.89% and the level of valid questions tested 90%. The validity of this post test question showed that the level of product being released was worth using.

With the correlation index in the book (Sugiyono, 2013: 186) as follows:

 $0.09 < r_{11} 00 1.00 = \text{very high degree of reliability}$

 $0.70 < r_{11} \le 0.90 = \text{high degree of reliability}$

 $0.40 < r_{11} \le 0.70 = \text{moderate degree of reliability}$

 $0.40 < r_{11} \le 0.20 = low degree of reliability$

 $r_{11} < 0.20$ = the degree of reliability was very low

The results of the reliability calculation in the posttest question were 0.74 with the meaning that this data was concluded in the category of high rehabilitation. So that in this trial rehabilitation and reliability were stated.

The research was conducted at grade IV of SDN 103014 Batang Baruar Julu, SDN 101130 Purba Sinomba and SDN 100930 Sibatang Kayu located in Padang Bolak subdistrict, North Padang Lawas Regency. The first step taken for the three sample classes before giving treatment was to give the initial test to students to find out the initial abilities of each student in both classes. The next step, doing learning was a class with products that have been developed by researchers. Then at the end of the learning process a final test was given to find out the student learning outcomes.

At the results of the pretest and posttest had a value of 2-tailed 0,000 < 0,005, it was concluded that there were differences in the pretest that had not been influenced by learning using the product and posttest that had been influenced by learning to use the product. It can be concluded that teaching materials were developed effectively.

The results of this study were in line with the results of the research conducted by Dek Ngurah Laba Laksana (2016) Based on the results of testing of the teacher and student response questionnaires, it was concluded that teaching materials developed in the category were very practical and feasible to use at an average position of 4.5. Learning activities increase which was accompanied by strengthening students' understanding of the science concept. Thus the study of local culture must be integrated in learning materials as an effort to improve the quality of learning.

B. Discussion

A teaching material can be said to be feasible after showing satisfactory results in achieving a predetermined goal. In this case, a product trial was carried out in the learning process to determine the effectiveness of the teaching materials developed. Effectiveness of teaching materials that, obtained from the value of student learning outcomes after testing the product.

Teaching materials that were developed based on input into the needs analysis activities to obtain information that the teaching materials developed were indeed needed and can provide convenience for students and teachers as users. Trianto (2011) argued that by developing the learning process led students to find new things and develop a fact that they found in learning by being linked to the conditions of their environment and producing the required values.

This was in accordance with Subanidro (2012) who said that the instructional materials developed were declared to be effective as a manifestation of student achievement values that exceeded the specified completeness seen from different data pre-test with post-test. Based on this, the teaching materials that have been developed were included in the category to meet the effective criteria. With this, the researcher drew conclusions on teaching materials based on student learning outcomes that achieved completeness in spending teaching materials that were developed effective criteria.

From the results of the research obtained, it was stated that the teaching materials developed by researchers have good effectiveness and increase students' knowledge of the area compared to the student books circulated now in the school under study. It was supported by the results of a study conducted by Kusumam et al. (2016) Development of basic teaching materials and measurement of electricity, namely materials developed from the 2013 curriculum and syllabus.

With the results of the study the average percentage in the trial was limited to reach 77.05% with a good category, then the average percentage in the wider trial reached 80.24% in the good category.

So it can be concluded that teaching materials developed based on local culture helped students more easily understand learning material. We can understand this in the learning process that it was expected that using effective teaching materials can improve student learning outcomes and deliver learning objectives achieved in accordance with expectations.

IV. CONCLUSIONS

A conclusion to the research results of thematic development of teaching materials based on local content, systematics grain conducted with respect to formulation of the problem and research objectives that have been formulated and can be summed up as follows:

- The feasibility of using local culture -based thematic teaching materials based on the results of validation from material experts, linguists and learning design experts showed that the overall average was categorized as "Good" and was suitable to use as local content based thematic teaching materials.
- The effectiveness of using local culture-based thematic teaching materials. From the results of the trials that

have been done, it can be concluded that there were differences in the pretest that has not been influenced by learning using products and posttest that have been influenced by learning to use the product. With this the authors concluded that products that were developed were effective and feasible to improve student learning outcomes.

SUGGESTION

Based on the conclusions and implications of the results of the research, here are some suggestions as follows:

- Teachers were still very much needed attention to creativity to develop teaching materials and students remained actively involved in the learning process.
- In order for the product to be more maximal and feasible to be used further, it required development consisting of: curriculum development experts, study experts and professional material experts, design, financial support, facilities and time available, and the ability of facilities in production adequate teaching materials.
- It was expected that the principal fulfilled the library in accordance with appropriate standards so that students can use it effectively.

Other researchers should conduct further research to develop teaching materials based on local culture in a more representative sample.

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