

Development of Art and Culture Teaching Materials Based On North Sumatra Local Content

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Abstract. The problem in this research is the unavailability of teaching materials for Cultural Arts (music, dance, and drama) based on local content in North Sumatra. The purpose of this study was to develop and determine the validation, practicality and effectiveness of teaching materials for Art and Culture based on local content in North Sumatra. The type of research used is Research and Development (R&D) with a Four-D model, namely: Define, Design, Develop and Disseminate. The cultural arts teaching materials developed include traditional arts from North Sumatra, including: traditional music (Karo, Simalungun, Nias), traditional dances (Mandailing, Sibolga, Dairi), traditional theater (Makyong and Batak Opera). The results of the assessment of the material expert validators are an average of 96.5% (very valid). The test results to students averaged 85.07 (practical). The results of the assessment of the effectiveness of the Arts and Culture teaching materials were an average of 67.08 (effective), the second stage trial averaged 91.25 (Very Effective)..

Keywords: Teaching Materials, Cultural Arts, Local Content.

1 Introduction

Learning in schools is currently collaborating between direct learning and online learning which is called Blended Learning. With this condition, teachers are encouraged to prepare digital-based teaching materials that can be used for direct and online learning. In this digital era, digital teaching materials are more effective than printed books. Digital teaching materials are electronic teaching materials which usually contain information or guides/tutorials. Adisaputera's research [1] stated that students were greatly helped by the existence of digital teaching materials based on Malay ecology that were integrated with LMS.

Observations made in several high schools in Medan City, found several problems in the subjects of Cultural Arts, including that teachers are required to teach four arts fields (music, dance, visual arts, drama), even though they only have an educational background in one field of art. In addition, the Art and Culture teaching materials used are still in print and there is no digital form of teaching materials available. Furthermore, the teaching materials for Cultural Arts have not yet contained material for the arts of music, dance, and drama originating from

ethnic groups in North Sumatra. This is very much needed in learning Cultural Arts in high school so that students can develop their creativity in the arts. The results of research that has been carried out by previous researchers, Widiastuti [2], developing teaching materials for the art of music based on local wisdom of North Sumatra turned out to be well received by Vocational Arts and Culture teachers, as well as Nugrahaningsih's research [3], because it helps teach music and dance through outputs. resulting research.

This research will develop cultural arts teaching materials in the form of e-books, animated PPT, animated games, learning videos (music/dance/drama) and questions/quiz/games, which are extracted from eight ethnic groups in North Sumatra (Malay, Karo, Toba, Simalungun, Mandailing, Nias, Pakpak, Sibolga). It is hoped that the success of this research will later be used in high schools in the city of Medan by providing teaching materials for Art and Culture based on local content in North Sumatra so as to help teachers teach Cultural Arts subjects.

Teaching materials are learning components used by teachers as learning materials for students and assist teachers in carrying out teaching and learning activities in the classroom. According to Widodo and Jasmadi in Lestari [4], teaching materials are a set of learning tools or tools that contain learning materials, methods, limitations, and evaluation methods that are designed systematically and attractively in order to achieve the expected goals, namely achieving competence or sub-competence. competence in all its complexity. Ellington and Race [5] grouped the types of teaching materials based on their shape, including:: (1) Printed teaching materials and their duplicates; (2) Non-projected display teaching materials; (3) Projected silent display teaching materials; (4) Audio teaching materials; (5) Audio teaching materials linked to silent visual materials; (6) Video teaching materials; (7) Computer teaching materials.

The words art and culture are two things that are interrelated and cannot be separated, because every art must have a unique culture. Vice versa, in every culture must have artistic value that is so beautiful and priceless. Harry Sulastianto [6], Cultural Arts is a skill in expressing aesthetic ideas and thoughts, including realizing the ability and imagination of views of objects, atmosphere, or works that are able to create a sense of beauty so as to create a more advanced civilization. Art and Culture is everything created by humans about the way of life developing simultaneously in a group that has an element of beauty that has been passed down from generation to generation. Arts and Culture in art education includes music, dance and theater arts. Art studies that can be used as material for Cultural Arts in high school can be extracted from traditional arts in accordance with local wisdom so that they become local content material in schools.

Local content is the content of a subject to develop regional potential as part of efforts to improve the quality of education in schools, besides that local content is also an effort to preserve the culture of the area where the school is located. Local content can be used as curricular activities to develop competencies that are tailored to the characteristics and potential of the region, including regional advantages, whose material cannot be grouped into existing subjects. The substance of local content subjects is determined by the education unit, not limited to skills subjects. According to Mulyasa [7], local content is a set of plans and arrangements regarding the content of learning materials determined by the regions in accordance with the circumstances and needs of each region and the method used as a guide for the implementation of teaching and learning activities.

2 Method

This study uses the type of research development or Research and Development (R&D) by Borg & Gall [8] which states that development research is an attempt to develop and validate products that will be used in education, Ardhana [9]. The development research model used in this study is the Four-D Model of Sivasailam Thiagarajan, Dorothy S. Semmel, and Melvyn [10]. This model consists of 4 stages, namely: Define, Design, Develop. The stages of the 4-D model are: (1) the Define stage is the stage to define and define the learning requirements; (2) The Design phase aims to design learning tools; (3) Develop (Development) is the stage to produce a development product which is carried out through two steps 1) expert appraisal and developmental testing; (4) Disseminate, the dissemination process is a final stage of development. Data collection techniques are carried out by: (1) validity testing, accuracy of instruments to collect learning outcomes data (2) reliability, instrument determination in capturing learning outcomes data even though users vary and the time of use, (3) practicality is a test phase for students (as users) after validation tests are performed by two validators; (4) Effectiveness Test. Data analysis techniques were carried out by analyzing the validity of the data. To determine the validity of the questionnaire, a Likert scale was used with a score for each answer: very good (5), good (4), moderate (3), not good (2), not good (1). By using the formula:

$$\text{Validity} = \frac{\text{Score obtained}}{\text{Maximum score}} \times 100$$

To analyze the effectiveness of teaching materials based on the questions given to students, using the following formula:

$$\text{Effectiveness Value} = \frac{\text{Score obtained}}{\text{Maximum score}} \times 100$$

3 Research result

The development of teaching materials in this study includes 4 stages using a 4-D model, namely: Define, Design, Develop, and Disseminate.

3.1 Define

The first step in the define stage is to define the needs analysis stage for product development in the form of cultural arts teaching materials, which consist of:

a) Preliminary Analysis

At the initial stage, the researchers conducted a study and analysis of the syllabus and Cultural Arts books used in high school class X, especially on the art of music, dance in Basic Competence (KD) 4.1 and theater arts in Basic Competence (KD) 3.1.

b) Student Analysis

At this stage the researcher identifies the characteristics of students in understanding the material of traditional musical instruments.

c) Task Analysis

At this stage, the researcher analyzes the tasks in the Cultural Arts subject.

d) Concept Analysis

At this stage the researcher analyzes the concept of cultural arts learning that is taught based on competency standards and arranges steps that are carried out rationally.

e) Formulation of Learning Objectives

At this stage the researcher writes the learning objectives as the basis for achieving student competence after doing the learning.

3.2 Design

The next step is the design of teaching materials for art and culture based on local content in North Sumatra:

a) Preparation of Test Standards

In the first stage, the researcher conducted a pretest to students before the material was given, the standard test contained questions containing material for Class X Cultural Arts, specifically for music, dance and theater arts.

b) Media Selection

In the second stage the researchers developed teaching materials for Art and Culture Based on Local Content in North Sumatra based on the characteristics of the material, learning objectives and student characteristics.

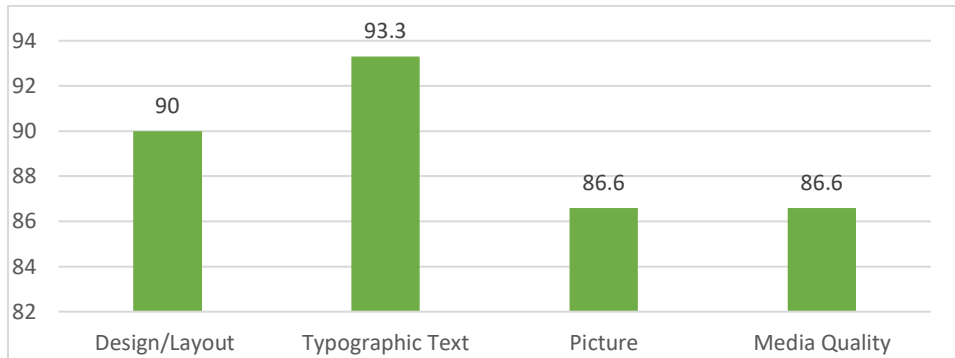
c) Development

The third stage of this research is development, namely developing cultural arts teaching materials by packaging music, dance, theater based on ethnicity of North Sumatra in the form of learning videos and books (e-books). Before being packaged into a learning video, the researchers made observations to collect data from several dance, music and theater studios in North Sumatra, with the aim of digging deeper into the techniques of playing traditional musical instruments from Karo, Nias, Simalungun, Mandailing dancetechniques, Sibolga, Dairi, Makyong Theater and Batak Toba Opera.

3.3 Develop

a) Validation

The results of the assessment from the media expert validator consist of four main aspects of the assessment, namely: (1) Design/Layout, which is at 90% achievement with very valid category; (2) Typographic Text, achieved 93.3% in the very valid category; (3) Image, is at 86.6% in the valid category; (4) Media Quality is at 86.6% in the valid category, with an average achievement of 89.12 in the valid category. The results of the media expert's assessment can be seen in the graph in Figure 1 below:



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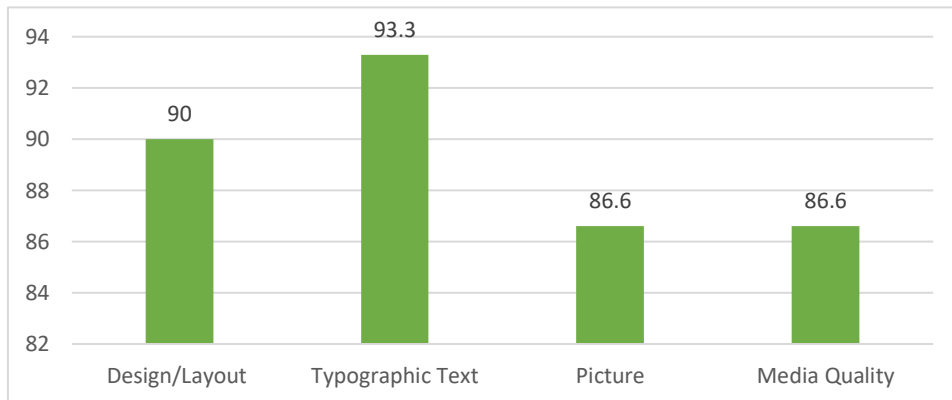


Fig. 2. Media Expert Graphics

The results of the assessment from the material expert validator consist of four main aspects of the assessment, namely: (1) Quality of Learning Materials, which is at 100% achievement in the very valid category; (2) Learning Delivery System, there is an achievement of 95% with a very valid category; (3) The Quality of Learning Strategies is at 87.5% in the valid category; (4) Quality of Language Learning Materials, is at 100% achievement with a very valid category; (5) Display Quality, is at 100% achievement in the very valid category, with an average achievement of 96.5% in the very valid category. The results of the material expert's assessment can be seen in the graph in **Figure 3** below:

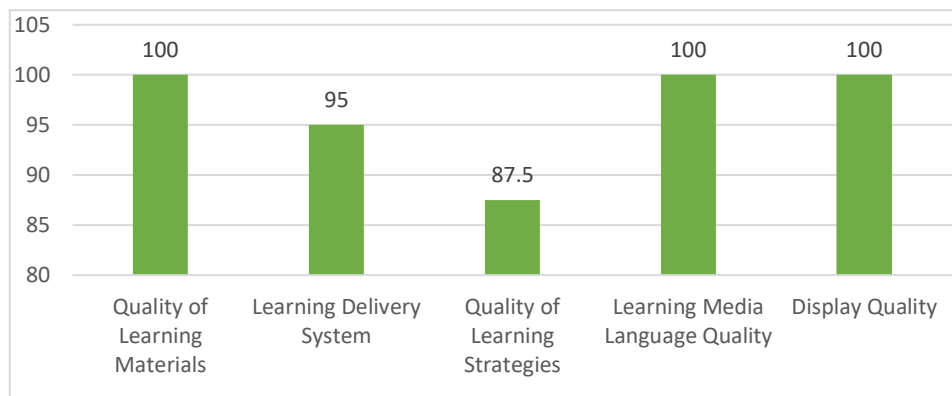


Fig. 3. Material Expert Graphics

b) Trial of Teaching Materials

At this stage a trial was conducted in high school to get reactions, responses and comments by users, namely Class X students in Medan City.

c) Practicality of Teaching Materials

The results of the assessment from the students consisted of four main aspects of the assessment, namely: (1) Design and layout, which was at 87.03% in the practical category; (2) Typographic text, which is at 86.48% in the practical category; (3) Figure, is at a value of 84.86% in the practical category; (4) Media Quality is at a value of 81.94% in the practical category, with an average score of 85.07 in the practical category. The results of the media expert's assessment can be seen in the graph in **Figure 4** below:

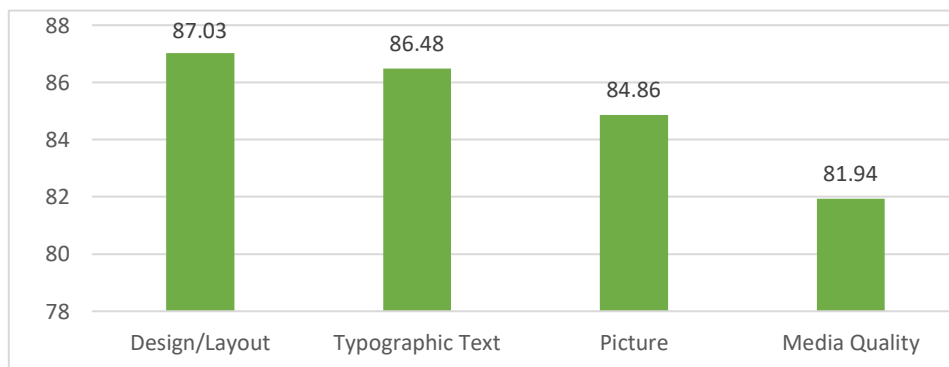


Fig. 4. Practicality Chart

d) Effectiveness of Teaching Materials

At this stage, learning and assessment are carried out to observe the effectiveness of teaching materials applied to the learning of Cultural Arts through three stages, namely: pretest, first trial, second trial along with posttest. The results of the three stages are listed in **Table 1** below:

Table 1. Average Test Results.

Activity	Pretest (%)	Trial Phase 1 (%)	Trial Phase 2 (Posttest) (%)
Score	51,52	67,08	91,25

1) Trial Phase 1

The first phase of the trial was carried out by providing Art and Culture teaching materials that had been developed but had not been revised based on suggestions from media experts. The percentage of the first stage of the trial obtained an average score of 67.08 students with the Effective category. The mastery of these students is grouped on the effectiveness of learning as shown in **Table 2** below:

Table 2. The Effectiveness of Test Results Phase 1

No.	Achievement (%)	Total students	Category
1	81 – 100	0	Very effective
2	61 – 80	26	Effective
3	41 – 60	10	Effective Enough
4	21 – 40	0	Less Effective
5	0 – 21	0	Very Less Effective

Based on the table above, it can be seen that the development of cultural arts teaching materials tends to be effective with a total of 26 students and quite effective with a total of 10 students.

2) Trial Phase 2 (Posttest)

In the second phase of the trial, the researcher provided the revised Cultural Arts teaching materials based on suggestions from media experts. After that, the students were given questions (Posttest) to determine the students' competence in the subjects of Cultural Arts. The percentage of the second stage of the trial obtained an average score of 91.25 students in the Very Effective category. The mastery of these students is grouped on the effectiveness of learning as shown in **Table 3** below:

Table 3. The Effectiveness of Phase 2 Trial Results (Posttest)

No.	Achievement (%)	Total students	Category
1	81 – 100	33	Very effective
2	61 – 80	3	Effective
3	41 – 60	0	Effective Enough
4	21 – 40	0	Less Effective
5	0 – 21	0	Very Less Effective

Based on the table above, it can be seen that the development of cultural arts teaching materials tends to be very effective with a total of 33 students and effective with a total of 3 students.

The results obtained from the N-Gain value in the effectiveness test got a value of 0.81 with a percentage of $g > 0.7$ in the high category. Based on the acquisition of the N-Gain value, it is known that the development of cultural arts teaching materials that have been revised by highly effective media experts can be seen in **Table 4** below:

Table 4. *N-Gain* Score Criteria

N-Gain Value	Category
$g > 0,7$	High
$0,3 \leq g < 0,7$	Currently
$g < 0,3$	Low

4 Conclusion

The development of North Sumatran Local Content-Based Cultural Arts Teaching materials in the Sendratasik application is made in the form of e-books, animated PPT, animated games, learning videos (music/dance/drama) and questions/quiz/games. The cultural arts teaching materials developed include the traditional arts of North Sumatra, including: (1) Karo traditional music; (2) Simalungun traditional music; (3) Nias traditional music; (4) Mandailing traditional dance; (5) Sibolga traditional dance; (6) Dairi traditional dance; (7) Makyong traditional theater. (8) The traditional theater of Batak Opera. The results of observations and data retrieval to art studios are then recorded in the form of video and compiled in the form of a book (e-book).

The results of the assessment from the media expert validator consist of four main aspects of the assessment, namely: (1) Design/Layout, which is at 90% in the very valid category; (2) Typographic Text, achieving 93.3% in the very valid category; (3) Figure, is at 86.6% in the valid category; (4) Media Quality is at 86.6% in the valid category, with an average achievement of 89.12 in the valid category.

The results of the assessment from the material expert validator consist of four main aspects of the assessment, namely: (1) Quality of Learning Materials, which is 100% attainment in the very valid category; (2) Learning Delivery System, there is an achievement of 95% with a very valid category; (3) Quality of Learning Strategy, is at an achievement of 87.5% with a valid category; (4) The quality of the language learning material is at 100% achievement with a very valid category; (5) Display Quality, is at 100% achievement in the very valid category, with an average achievement of 96.5% in the very valid category.

The results of the assessment from the students consisted of four main aspects of the assessment, namely: (1) Design and layout, which was at 87.03% in the practical category; (2) Typographic text, which is at 86.48% in the practical category; (3) Figure, is at a value of

84.86% in the practical category; (4) Media Quality, is at a value of 81.94% in the practical category, with an average score of 85.07 in the practical category.

The results of the assessment of the effectiveness of Arts and Culture teaching materials can be described as follows: (1) Pretest is conducted to determine the students' initial abilities before being given teaching materials with percentages: 0-21% (2 students are very less effective category); 21-40% (11 students in the less effective category); 41-60% (13 students in the quite effective category; 61-80% (10 students in the effective category). The percentage at the pretest stage obtained an average score of 51.52% students in the quite effective category; (2) The first phase of the trial was carried out with provide cultural arts teaching materials that have not been revised by the validator with percentages: 41-60% (10 students are quite effective category); 61-80% (26 students are effective category); the percentage at the pretest stage obtained an average value of 67.08% students with categories Effective; (3) the second stage of the trial (posttest) was carried out by providing teaching materials for Cultural Arts which had been revised by the validator which was then carried out posttest with the results of the percentage of achievement: 81-100% (33 students were very effective category); 61-80% (3 students in the effective category); the percentage at the pretest stage obtained an average score of 91.25% with a very effective category. Through the effectiveness test of Cultural Arts teaching materials, the percentage increased after going through three stages, namely pretest, trial stage one, and the second stage of the trial (posttest). The results obtained from the N-Gain value in the effectiveness test got a value of 0.81 percentage > 70% in the Very Effective category. The conclusion is based on the acquisition of the N-Gain value, it is known that the packaging of learning with cultural arts teaching materials that have been revised by media experts is very effective.

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