

# North Sumatera Traditional Ornaments in The Form of Educational Comics as a Fine Arts Learning Media

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**Abstract.** This research is a development research that produces decorative learning media for North Sumatra based on educational comics as an appreciation of material in elementary arts and skills education courses. In the Fine Art and Skills Education course, students are not only required to be able to hone practical skills but also understand the contextual aspects of a work of art through art appreciation activities. Through this activity, students are invited to be able to understand the background of making a work, history and cultural anthropological relations so that students can gain concrete knowledge about works of art which will be a practicum assignment. The development model used is the 4D model which emphasizes the development of North Sumatra decorative learning media based on educational comics. At the definition (defining) stage, an analysis of the needs of fine arts learning media will be carried out, the susceptibility to North Sumatra's decorative styles, and planning for the packaging of learning media content. Based on the results of this analysis, a design (design) of North Sumatra decorative learning media was carried out as material for student appreciation. Once designed, it is followed by the development (development) stage by carrying out 3 main activities, namely: validity test, practicality test, and effectiveness test. Through the development of this learning media, it seems that students are more enthusiastic about understanding the textual and contextual aspects of a work of art. The educational values contained in a traditional ornament are of course a positive aspect for the formation of moral character and love for the nation's culture.

**Keywords:** Learning Media, Traditional Ornaments, Educational Comics

## 1 Introduction

The learning process is a series of systems where each component is integrated with each other to achieve a positive achievement. Several components in the learning process include: (1) objectives, (2) methods, (3) learning materials, (4) tools and media. (5) learning evaluation [5]. Media as one of the learning components has a role as a means of non-verbal communication. Therefore, it will be very important as an educator to be able to optimize the use of learning media to achieve more optimal learning results. In accordance with Ruth Lautfer's opinion [14] that learning media is a tool that helps education in conveying learning material so that it can increase students' creativity and learning motivation.

Guidance for an educator in using learning media is also regulated in Law no. 14 of 2005 concerning Teachers and Lecturers and Minister of National Education Regulation no. 16 of 2007 concerning Academic Qualification Standards and Teacher Competencies. The law stipulates that education must have competence in utilizing technology and information to

carry out a more optimal learning process. Educators are also expected to be able to establish effective, empathetic and polite communication in the learning process. Furthermore, in Minister of National Education Regulation no. 16 of 2007 states that educators must have competence in using learning media that is relevant and appropriate to the characteristics of students so that learning objectives can be achieved. [13].

Within the scope of higher education, the use of learning media also greatly influences the lecture process to achieve optimal goals. The Fine Arts and Elementary Skills Education course is one of the arts courses in the Primary Teacher Education - Faculty of Education which prioritizes students' practical achievements. In this course, students are required to have practical fine arts skills that are relevant for elementary school needs. Apart from practical achievements, students are also required to be able to understand the contextual aspects of a work of art through art appreciation activities. Through this activity, students are invited to understand the background to the creation of a work, its history and cultural anthropological relationships so that students can gain concrete knowledge about works of art which will be part of their practical assignments.

North Sumatra has a very diverse range of traditional decorations or ornaments. Several ethnicities in North Sumatra such as Toba Batak, Simalungun, Karo, Pakpak/Dairi, Mandailing, Nias and Malay have distinctive characteristics according to their cultural context. The distinctive characteristics and variety of ornamental characteristics in North Sumatra can be explained in terms of shapes, lines, colors and the meaning contained in the ornaments. Traditional ornaments from North Sumatra are often found to decorate various products, including decorating traditional houses (traditional houses), household furniture, ulos and souvenirs. In a study of ornamental analysis, it is stated that the main function of ornamentation is as a guide for the supporting community [8]. In further studies, it is stated that traditional ornaments also have a symbolic meaning that requires a moral message so that later they can be used as a means of education for the community [7]. Based on several contextual studies, this can of course be packaged into material in an interesting open art form. Some examples of decorative forms in North Sumatra are elephant dampak, lions which are usually found on walls or entrances, then ulu paung which comes from buffalo heads at the top of the ridge. These three types of decoration function as repellents so that every family can avoid various difficulties and disasters. Furthermore, the art of carving and carving made from wood, stone and metal produces statues of ancestors and animals as well as other items such as sticks, knives, keris, areca nut holders, jewelry boxes, musical instruments and so on. Another art that stands out is woven mats made from rattan, pandan, bamboo and coconut fiber. This craft has motifs such as bamboo shoots, pomegranate seeds, spilled rice, waves, clove flowers in various colors. [12]

Primary Teacher Education Study Program, as one of the study programs that prioritizes increasing student academic competence, is of course obliged to develop various lecture materials, teaching materials and innovative media. One of the profiles of Primary Teacher Education Study Program graduates is that they can produce elementary school teachers who are skilled and have mastered competencies in mandatory fields of study such as Mathematics, Indonesian, Natural Sciences, Social Sciences, Civics and Arts and Culture. In the field of arts and culture, especially the Fine Arts and Elementary Skills Education courses, the lecturer team has carried out various innovations to design teaching materials that are relevant to the needs of elementary schools. This is in accordance with the objectives of the OBE (Outcome Based Education) based curriculum where the competency of graduates formed by the PGSD Study Program must be able to meet market needs. Based on the research road map in 2021, the KDBK arts team has conducted research on the development of teaching materials in the

form of e-books (Google Book/Play Book and Google Scholar) with ISBN in fine arts and elementary school skills education courses [1]. In its application, teaching materials containing technical practicums are certainly deemed insufficient to fulfill students' understanding of the contextual aspects of the work, therefore there is a need for further research to create learning media containing theoretical material based on local wisdom that can strengthen students' understanding of the background artworks

## **2 Research Method**

This research is development research which aims to design products systematically and structured through the stages of planning, development, evaluation and dissemination which aims to test the level of validity and effectiveness of product use. Furthermore, Seels and Richey [9] explained that conventional product development research is different from the development of learning products which are technically simpler. The Rnd approach used is a 4-D model (four D models). Sugiyono [11] explains in his theory that there are four stages in this research, namely: definition, design, development and dissemination.

The development stages in this research can be detailed as follows.

- a. The definition stage aims to analyze several aspects including: (1) analysis of the needs for fine arts learning media (2) mapping of the decorative variety of North Sumatra (3) planning the packaging of learning media content
- b. The design stage is (1) Describing the decoration and contextual meaning of the work, (2) Describing the script and storyline of the educational comic, (3) Carrying out the design and story board of the educational comic
- c. The development stage includes: carrying out validation tests (material experts and design experts), practicality tests (distributing questionnaires to colleagues), effectiveness tests (product implementation results)
- d. The dissemination stage involves distributing the product for lecture needs within Medan State University or relevant universities

## **3 Results and Discussion**

### **3.1 Definition**

#### **3.1.1 Analysis of Fine Arts Learning Media Needs**

In the initial process, a needs analysis was carried out on the use of learning tools used in the lecture process in fine arts education courses in the Primary Teacher Education Study Program. A needs analysis was carried out as a strategy to develop learning media for traditional North Sumatran decorations based on educational comics. Educational comics are an alternative learning media that can be used to strengthen students' understanding and knowledge of the traditional decoration of North Sumatra.

To analyze these needs, researchers used a questionnaire containing questions referring to aspects of the use of fine arts learning tools, the practicality of learning tools and the use of language and the design of learning tools. Based on the analysis of the needs for using fine arts learning tools in the Primary Teacher Education Study Program, it can be seen that, in general, the fine arts education learning process uses teaching materials that suit student needs. The fine arts teaching materials used fulfill the need for theoretical material to increase

students' understanding of the textual and contextual aspects of fine art objects. The teaching materials also explain several materials regarding the implementation of fine arts learning for elementary school needs. In terms of practice, the teaching materials also fulfill several instructions for making several works of fine art such as painting, drawing Indonesian decorations, crafts and also several works that optimize online media such as paper crafts. However, in implementing the lecture process, several media were not included that could strengthen students' understanding of appreciation. Therefore, students are still focused on understanding the material descriptively without any innovative media that can stimulate student learning motivation.

Based on the results of this analysis, it can be seen that the learning process still uses printed teaching materials even though some content has been integrated into digital media such as YouTube and websites. The design of the teaching materials themselves is quite interesting because several examples of concrete work are included so that students can be clearer about creating a work of fine art. Based on the needs questionnaire analysis, it can be seen that of course the fine arts learning process really requires learning media to support the learning process to be more effective. This can certainly be the basis for developing innovative learning media so that it can stimulate student learning motivation. The discussion process was carried out by the art lecturer team to try to formulate a learning medium in the form of educational comics containing traditional North Sumatran decorations. This can certainly be a forum for student appreciation thereby increasing knowledge of the textual and contextual aspects of traditional North Sumatran ornaments [6]

### **3.1.2 Mapping Analysis of North Sumatra Decorative Variety**

The process of making North Sumatran decorations is carried out to be able to design several traditional North Sumatran ornaments which will be packaged in the form of educational comic media. The decoration chosen must of course have educational meaning and contain positive values regarding moral and educational aspects (Pasaribu, et al, 2023). Based on the results of analysis and discussions with the the art lecturer team for art education at Primary Teacher Education Study Program several decorative variations from 7 traditional ethnicities of North Sumatra were formulated, including: (1) Karo: Dew Sikawiten, Pangeret – ether, (2) Toba Batak: Dalihan Natolu, Gajah Dompok, Niari's eyes. (3) Nias: Ni'ogolilimo, Ni'Ohaluyo, Ni'Okindro, (4) Simalungun: Silobur Pinggan, Pinar Bulung Ni Andurdur, Pinar Bulung Ni Andurdur, Gajah Mardompok, Pakir Marodor, (5) Mandailing: Bona Bulu, Burangir , Bondul Na Opat, Jagar-Jagar, (6) Pak-Pak: Gerga Perbungan Rintua, Gerga Epen-Epen, Gerga Bulan, (7) Malay: Lilit Kangkung, Ricih Wajid, Lebah Gantung

### **3.1.3 Learning Media Content Analysis**

To create educational comics, use the Clip Studio Paint application. Clip Studio Paint is an application that was previously introduced by Manga Studio, which is software for MacOS and Microsoft Windows. Clip Studio Paint is special software used to create digital comics and manga.

### 3.2 Design

#### 3.2.1 Educational Comic Design and Storyboard

At this stage, researchers try to design designs in the form of sketches and also story boards from comics as the first step in making digital comics. Before the coloring stage, the researcher tried to sketch the comic in stages. The first part of the sketch depicted depicts the opening of a story about Beyamin Ginting and Ciliat who are fighting over family inheritance. The sketch form can be seen as follows:



Fig. 1. Sketches 1 and 2

The next part, the researcher designs a sketch in the form of a conversation between the two figures. In this section, the two characters have a dialogue about the contents of the decorations found in one of the characters' house:

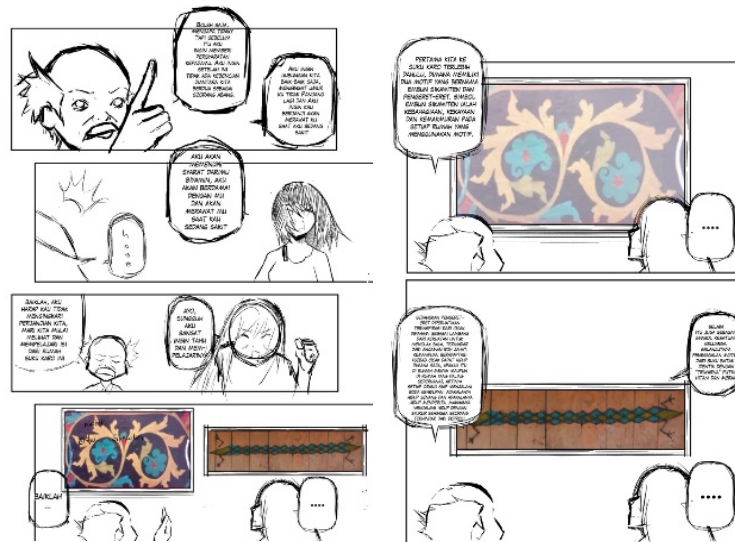


Fig. 2. Sketches 3 and 4

In the first plot in describing the contextual meaning of North Sumatran decorations, the researcher begins by knowing the decorations found in the Karo ethnic group. The decorations explained by Embiun Sikawiten and Pangeret – Eret. In the next sketch stage, the research tries to explain the Toba Batak ethnic decoration, namely Dalihan Natolu, Gajah Dompok and Mata Niari. The sketch illustrations for the comic can be seen as follows.

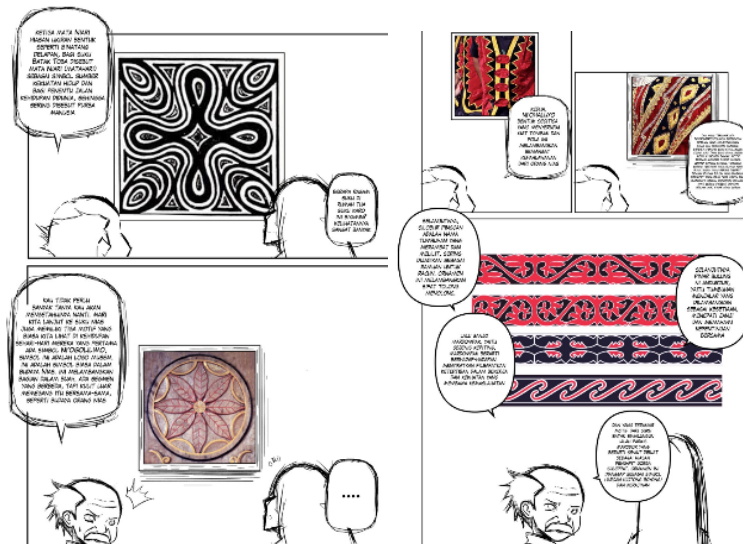


Fig. 3. Sketches 5 and 6

In sketches 5 and 6 the researcher also explains the decorative variations of the Nias and Simalungun ethnic groups. Next, in sketches 7 and 8, the researcher designed sketches of the Mandailing and also Pak - Pak ethnicities. Each description of each decoration is equipped with an explanation of contextual aspects to provide knowledge to comic readers. The forms of sketches 7 and 8 can be seen as follows:

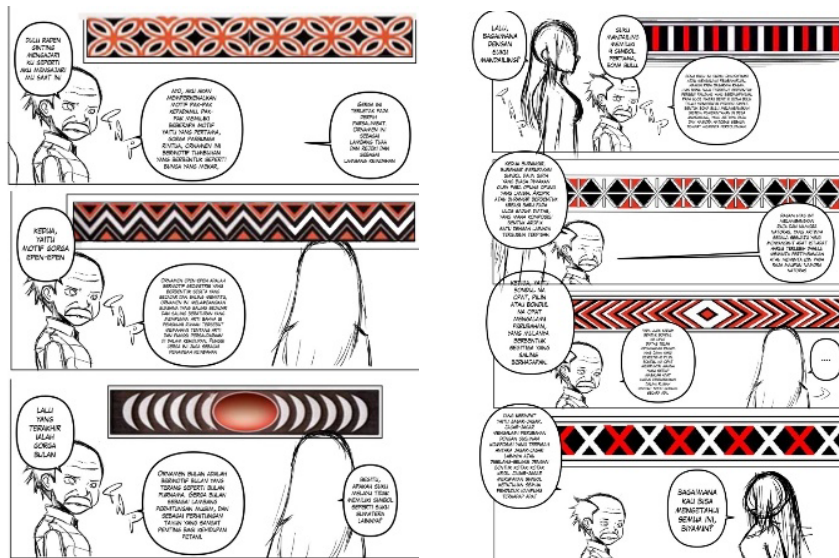


Fig. 4. Sketches 7 and 8

In the next stage, the researcher carried out the finishing stage for educational comics by coloring each comic sketch page. The coloring process is carried out in stages by paying attention to the details of the image that has been designed at the sketch stage. An example of a comic that has gone through the finishing stage is as follows

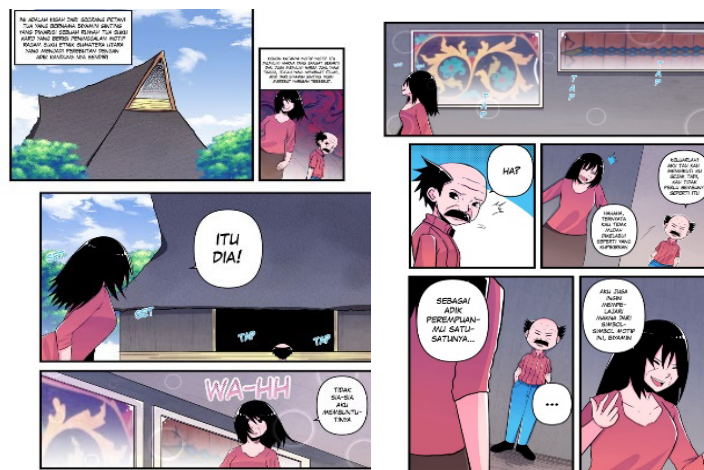


Fig. 5. Finishing Results of Several Comic Pages

Then, in the final part, the researcher tried to design a sketch to provide information regarding the traditional decoration of the Malay ethnic group. At the end, the researcher closes the storyline with a discussion between Beyamin and Ciliias. The sketch that has been designed will later be continued at the Coloring stage to produce a more attractive comic appearance. For the finishing stage, the researcher will package the educational comics in the form of a flip book so that they are more attractive and easy for users to access.

### 3.3 Develop

#### 3.3.1 Material Expert Validation

The learning media for traditional North Sumatran decoration that has been designed is followed by a validation process from the material expert, namely Anada Leo Virganta, S.Pd., M.Pd. From the results of the validation carried out, valid (feasible) results were obtained with the following details:

**Table 1.** Material Expert Validation Results

Assessment Aspects	Before Revision	After Revision
	Total Score	Total Score
Aspects of Material Load	10	13
Aspects of Material Presentation	15	20
Language Aspects	15	15
Total	40	48
Category	“in accordance”	“Very suitable”
Average value	Average = $40/50 = 0,8$	Average = $48/50 = 0,96$
Average Percentage	$40/50 \times 100\% = 80\%$	$48/50 \times 100\% = 96\%$

From the data above it can be described that the results of the first stage of validation obtained a total of 80% in the "feasible" category. Next, product revisions were carried out and the score was increased to 96% in the "Very Eligible" category. Based on the validation carried out, the material expert provides suggestions on several explanations of contextual aspects which are expected to clarify educational aspects so that the educational values contained in the story can be seen.

#### 3.3.2 Learning Media Expert Validation

Media validation aims to determine the suitability of comic media designed from the aspects of image detail, color harmonization, comic characters and storyline so that it will be valid for use in the learning process. Product validation by media experts was carried out by Adek Cerah Kurnia Aziz, S.Pd., M.Pd, the scores obtained were as follows.



**Table 2.** Media Expert Validation Results

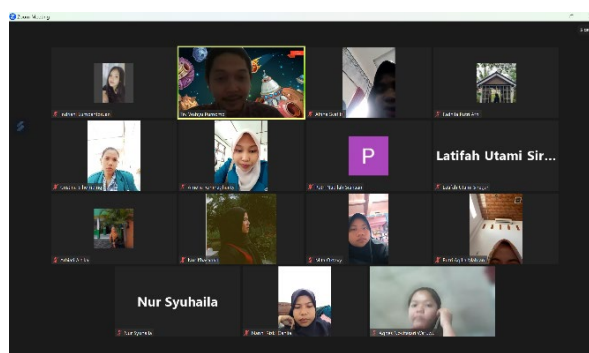
Assessment Aspects	Before Revision	After Revision
	Total Score	Total Score
Aspects of Material Load	15	15
Aspects of Material Presentation	41	54
Language Aspects	15	15
Total	71	84
Category	“in accordance”	“Very suitable”
Average value	<b>Average</b> =71/90= 0,788	<b>Average</b> =84/90 93,3
Average Percentage	71/90x 100% = 78,8 %	84/90 x 100% = 93,3 %

The first stage of media validation obtained a score of 78.8% in the "Decent" category, and then after the revision of the food product a score of 93.3% was obtained in the "Very Eligible" category. Media experts stated that the comic design on each page should be clearer regarding images of traditional North Sumatran ornamentation. This is to make it easier for students to see the details of each decoration so that it can be used as material to strengthen student appreciation.

### 3.3.3 Implementation Stage

Next, the product is tested for effectiveness by implementing the product in the learning process. The research sample involved in this research was 20 Primary Teacher Education students. The trial phase was carried out in coordination with the research samples to share information regarding the research objectives. The research stages will continue when students start their studies.

This research is development research which aims to design products systematically and structured through the stages of planning, development, evaluation and dissemination which aims to test the level of validity and effectiveness of product use. Furthermore, Seels and Richey [9] explained that conventional product development research is different from the development of learning products which are technically simpler. The Rnd approach used is a 4-D model (four D models). Sugiyono [11] explains in his theory that there are four stages in this research, namely: definition, design, development and dissemination.



**Fig. 6.** Process of Equating Perceptions Before the Testing Stage

The design of educational comics was carried out to fulfill the learning media needs in Fine Arts Education lectures at Primary Teacher Education Study Program so that the learning process could be maximized. This is in accordance with the opinion of Tofano (2018) who states that learning media is everything in physical or technical form that is used in a learning process so that it can make it easier for educators to convey material and achieve more optimal learning goals. It is hoped that this learning media can strengthen students' knowledge of traditional North Sumatran decoration material which will later become a means of appreciation.

The decorations that are the focus in the packaging of this comic learning media are traditional ornaments that are the identity of each ethnic group in North Sumatra including: Karo, Batak Toba, Nias, Simalungun, Mandailing, Pak-Pak Dairi, Malay as for the details of several decorations. packaged in educational comics can be described as follows:

- a. Karo. Some examples of decorations in the Karo area are: (1) Tapak Raja Sulaiman has the meaning of being a guide so that you don't get lost when traveling, especially when traveling into the forest, (2) Bindu Matagah has the meaning of protecting yourself from wild animals when traveling. entering the forest, (3) Sikawiten Dew and Tulak Paku as decoration [3]
- b. Toba Batak. Some examples of ornaments in the Toba area are: (1) Hoda - Hoda. The decoration is in the shape of a person riding a horse and next to him is someone holding the reins of the horse. (2) Adep - Adep symbolizes fertility and prosperity, this symbol is also often referred to as a symbol of motherhood (Inanta Parsonduk) which has the meaning of a loving and merciful figure. (3) Mata Niari, is a symbol in the form of a star that has eight corners. For the Toba Batak tribe, this symbol symbolizes strength in life and determines the path of life in the world, so it is also commonly referred to as Ancient Man. (Saragih, et al, 2019)
- c. Nias. Some examples of ornaments in the Nias area are: (1) Ni'o Bawa Lasara. This decoration is in the form of a fern, but for the people of Nias, this decoration depicts the head of a giant snake opening its mouth. (2) Ni'o Bogi. In this decoration there are parts that resemble fangs or teeth which are arranged in straight, curved and triangular lines. (3) Ni'o Huluyo. This decoration is formed from very small and neatly arranged triangle motifs. [15]
- d. Simalungun. Some ornamental examples in the Simalungun area are: (1) Silobur Pinggan, which is a decorative variety in the form of a creeping plant and in the Simalungun community is often used as a potion to antidote poison. This ornamental style has the meaning of an attitude of helping each other. (2) Pinar Mombang. Mombang is defined as a large teak tree. This decoration functions as a substitute for the Datu/Guru figure who functions as a savior and giver of health. [12]
- e. Mandailing. Some examples of decorations in the Mandailing area are: (1) Bona Bulu, where this decoration symbolizes the form of government found in villages in the Mandailing area. This decoration is also often referred to as namora natoras, which is a place to ask for help. (2) Jagar – Jagar. This decoration is a symbol of all village residents' compliance with the customs that apply in society. (3) Burangir, is an ornamental dish that comes from betel leaf sumbil which is usually eaten by elderly opung-opung. [4]
- f. Pak Pak Dairi. Some examples of ornaments in the Dairi area are: (1) Perotor Kera, which is a decoration in the form of animal motifs (monkeys) whose offspring are visible in one direction, (2) Perbunga Koning, which is a decoration in the form of plant motifs resembling trees. This decoration also symbolizes and depicts the beauty

- of women, (3) Beraspati, is a decoration in the shape of a plant and depicts a flower in bloom. This decoration also symbolizes good luck and fortune [10]
- g. Malay. Some examples of decoration in the Malay ethnic group are: (1) Pucuk Rebung, this decoration has the meaning that every activity carried out by the community will have life values that function as a guide to life, especially in the religious aspect, namely the strong Islamic religious law. (2) Flower Wheel, this ornament contains beauty and artistic value, the carvings are dreamy or hollow so that enough light enters the room, (3) Unbroken tiles. This decorative variety means that no matter how difficult it is for humans to live their lives, the good fortune that Allah SWT will give them will never run out. [2]

## 4 Conclusion

Based on the results presented, it can be concluded that: (1) At the definition stage, the results of a questionnaire obtained from 40 respondents were 80% stating the need to develop fine arts learning media in PGSD so that they can strengthen existing teaching materials, then 90% states that there is a need to strengthen material regarding traditional North Sumatran ornaments, so that it can increase textual and contextual knowledge of North Sumatran ethnic ornaments. (2) At the design stage, the process of creating a storyline and script from the comic is carried out, then continues with sketching and finishing the educational comic.

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