

# Batik Interactive Media in Learning the Fable Stories of Swan and Turtle for Tunagrahita Children

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## ABSTRACT

Interactive media in the learning and playing process is an important means to attract students interest. Providing interactive media that suits children's needs in the learning process determines success in their learning. Batik with the fable theme of the Swan and Turtle as interactive media contains a moral message, especially for mentally retarded children. The creation of this interactive media aims to complement previous studies which rarely create non-multimedia interactive media that can stimulate the sense of touch of mentally retarded children. The practical method of creating this work, the creation of Practice Based Research, practice-based research is very appropriate to use in the creation process, because in this process it produces a way in which practice can produce knowledge in research that grows in creating the work. One of the main characteristics of this research is creating and reflecting on new work through practical research carried out. The results of this creation are in the form of batik interactive media with learning fable stories of Swans and Turtles using written batik techniques in the process of realising visually appealing illustrations of fable stories, interesting interactive media not only to stimulate sensory, fine motor and train concentration, but from interactive media it also teaches manners that contain character values and preserve batik as a cultural heritage and not only as a fashion product.

## KEYWORDS

Interactive Media, Batik  
Tunagrahita, Fable,  
Story

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## INTRODUCTION

Interactive media in the learning process as well as playing is an important means to attract students' interest. The provision of interactive media that meets the needs of children in the learning process determines success in their learning (Abdullah 2017). Appropriate interactive media is also important in helping the development of children with special needs (tunagrahita). Children with disabilities have intelligence that is significantly below average and accompanied by an inability to adapt behaviors that arise during the developmental period. Children with disabilities have such academic barriers that their learning services require curriculum modifications that suit their special needs (Widiastuti, N. L. G. K., & Winaya n.d.2019), children with disabilities face problems with the focus of activities; They take a long enough time to absorb information and take care of tasks that take a long time to complete. When they enter school, children with disabilities will have difficulty understanding things in school. Children with disabilities often experience attention disorders, namely easily distracted and lack of concentration so that they experience obstacles caused by the influence of their perceptual abilities (Sari and Natalia 2018). In line with Bratanata's statement (Effendi: 2006) that one of the obstacles that appears in visually impaired children from a cognitive perspective is having difficulty concentrating. However, children with disabilities (tunagrahita) can focus on

interesting things or media. So there is a need for interactive media that can help train mental and intellectual.

Based on the search for data related to interactive media for the visually impaired, this shows that it is important to create the right interactive media, to help the learning process of children with disabilities. Studies on learning media for the disabled have been carried out by many previous researchers. Most studies discuss interactive multimedia learning media for the disabled (Ambarwati and Darmawati 2020); (Herdiyanto, Sulton, and Praherdhiono 2020); (Pradnyana, Pradnyana, and Suyasa 2020); (Fauzia et al. 2017) and non-multimedia interactive media (Ivan Alfikri and Tengku Khairil Ahsyar, 2018). Studies whose output are non-multimedia products are rarely found even though non-multimedia interactive media if presented in the real world can help stimulate the senses of sight and touch in children with disabilities.

The creation of this interactive media aims to complement previous studies that are still rare to create a non-multimedia interactive media that can stimulate the senses of touch (sensory), motor and concentration of children with disabilities. Handling children with special needs, especially with mental barriers (disabilities), one of which can be done by providing art therapy using interactive media. *Art therapy* is an effort to improve mental health by using art media. *Art therapy* It has the goal of exploring feelings, reducing anxiety, and reconciling emotional conflicts. *Art therapy* This is done in groups, providing benefits, namely educating students emotionally in the social realm, namely practicing interaction skills between group members (Mahardika 2017). Specifically to create an interactive media for children with disabilities. This writing adheres to one important point, namely how to create interactive media for children with disabilities made of textiles in the form of batik in learning the fables of Swan and Turtles. The presentation of these points provides knowledge about the reasons for the creation of interactive media for visually impaired children made of textiles in learning the fables of Swan and Turtles. In addition, it also reveals how the process of creating interactive media specifically for children with disabilities is mainly made of textiles in the form of batik with the theme of the fable of the Swan and the Turtle, so that it is successful in helping the learning process. Batik is a cloth that is drawn using a tool filled with a liquid called wax. Until finally a picture was formed that had high artistic value. Batik comes from the word *amba* and *tik* which comes from the Javanese language which means writing periods. Written batik is a batik technique that is carried out using canting written on the cloth following the motif that has been painted on the fabric. In making batik products, of course, it is inseparable from the motif, because the motive is one of the most important things (Novrita and Pratiwi 2022).

This creation research is based on the argument that engaging interactive media can determine the success of the learning process of children with disabilities. Interesting interactive media is not only to stimulate sensory, fine motor and train concentration, but from these interactive media also teach ethics that contain character values. In the creation of this interactive media, it raises fable stories because children are more interested and like them (Sabarua 2019). The fable with the story of the Swan and the Turtle was chosen because the story contains the teaching of good ethics sourced from the temple relief. The source of the story was chosen from the relief of animal stories at Mendut Temple located in Magelang Regency. Several animal story reliefs adorn the walls of the temple, including reliefs of monkeys riding the backs of crocodiles (Monkeys and Crocodiles) and turtles being flown by two swans (Swans and Turtles). Batik media was chosen because it is safe and keeps children comfortable, and there are many types of fabric textures that can be chosen so that they can train during the learning process of children with disabilities (Ramadhani and Sudarsini 2018). Batik serves as a visual language that can tell the long history of the nation's cultural journey, starting from the past to the present. In addition, batik is also a window for the world to understand and appreciate the beauty and diversity of Indonesia's cultural heritage (Budiman, Pertiwi, and Benyamin 2024).

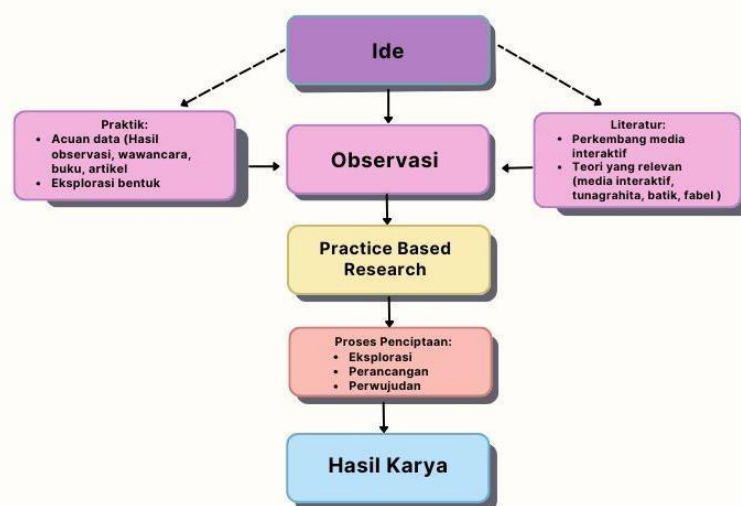
In this study, the author chose reliefs that depict the friendship of Swans and Turtles. In this story, there is a moral message of mutual help to anyone who needs help or help, besides that there is also a moral message in the form of an attitude of holding fast to the promises that have been spoken. The relevance of the value of character education contained in the relief of animal stories Swan and Turtles has character values of self-control, responsibility and moral integrity (Dewi Retno

Sari 2013). Mardiwarsito (1983) in (Research, Arts and Culture et al. 2020) The relief of this animal story is sourced from the book Tantri Kamandaka which is in Ancient Javanese.

## METHOD

The focus of this research is to create an interactive media of batik for children with disabilities by learning the fable stories of Swan and Turtles. The importance of creating interactive media helps children with disabilities to stimulate their sensory and motor development, providing education on moral values and ethics contained in the fable story of the Swan and the Turtle. The author uses the theme of the fable of the Swan and the Turtle as a story in interactive media, because the story contains the teaching of good ethics, which is sourced from the relief of Mendut Temple. Based on this, a method was chosen to facilitate the creative process. The process of creating a practice-based work of art requires a creation method based on relevant theories. In general, a method is a way to move or do something systematically and in an orderly manner, the order of thoughts and actions, or also techniques and work arrangements in a certain field or field (Mikaresti and Mansyur 2022). The author uses the following steps to create this method and creation *Practice Based Research*.

*Practice Based Research* is a type of scientific writing from the results of ongoing practical research. Practice-based research is very appropriate to be used in the creation process, because it will produce alternatives or ways in which practice can generate knowledge in research that grows in creating creative works and documenting and publishing these works. One of the main characteristics of this research is to create and reflect new works through practical research conducted (Hendriyana, 2021: 9).



**Figure 1.** Creation Stage Scheme (Source: Ratih, 2024)

In the process of creating three steps, three steps were chosen which refer to Gustami's opinion in (Gladies Aprilia, Martono, and MPd 2017) The method of creation includes three stages, namely, Exploration, Design and Manifestation. With these three stages, the resulting works can be created properly and in accordance with the idea of creation and its function. In line with the opinion of SP. Gustami said that in creating interactive media for children with disabilities, it is necessary to carry out stages, namely:

### 1. Exploration

Art exploration is often used for the purposes of creative problems, creative ideas, and intensive empirical experiences through communication with visual data (artifacts) in selective works and related libraries. The meaning of adulthood, uniting creative and innovative capital through the creative thinking process (Gracia Simatupang et al., n.d.). So that exploration can be concluded as a stage of searching and maturing ideas and visuals as well as looking for references from predetermined themes. The process of creating batik interactive media for children with disabilities began with exploration, in the creation of which observations were made. It is aimed at exploring relevant and interesting themes to find visuals contained in the fable story 'Swan and Turtle' and

visualized through batik artworks. The visuals shown must be attractive and use bright colors that attract attention but still convey the moral message contained in the fable story 'The Swan and the Turtle'. Observations were carried out to find out the condition and needs of children with disabilities, through interviews with Special Needs School (SLB) teachers and parents of students. This is to find out the extent to which interactive media can be used effectively and be able to help teachers and parents in accompanying children with disabilities to learn.

## **2. Design**

Design derived from the word design according to the Great Dictionary of the Indonesian Language (Pusat Bahasa Departemen Pendidikan Nasional 2007) which means design, and design is the process, way, act of designing, while designing is arranging everything (before acting, doing, or doing something). Starting from alternative sketches, ideas or ideas that are still in abstract form are poured into sketches to facilitate the visual work process until a selected sketch is produced. Choosing the right unity and harmony such as composition, color, texture and so on as well as choosing the shape and harmony of art elements.

## **3. Realization**

At this stage, the artist determines the form of creation that is felt to be appropriate by combining the materials obtained from previous explorations. The formation stage starts from sketches, ideas or ideas that are still in abstract form are poured into sketches to facilitate the visual work process, then prepared into prototype models until the desired perfection of work is found. The model can be made in miniature size, it can also be in actual size. Choosing the right unity and harmony such as composition, color, texture and so on as well as choosing the shape and harmony of art elements. Before entering the work, first prepare all the necessary equipment, including the main equipment, supporting materials, and equipment. This preparation is very necessary to avoid problems that will arise during the realization process. In the creation of the work, the author completes the creation of the work, namely the presentation (*presenting*).

*Presenting* or presenting works in art refers to the way in which the artwork is presented or performed to the audience or audience. It involves using various *platforms* or mediums to display the artwork, such as art galleries, exhibitions, social media, or live performances. The presentation of artwork is an important step in the artistic process because it is an opportunity for artists to share the vision, inspiration, and message contained in their work with the audience. Through the presentation, the audience has the opportunity to experience and interpret the artwork, as well as capture the artistic meaning and value that the artist wants to convey

## **RESULT AND DISCUSSION**

The creative process in realizing works of art that have artistic aspects, such as aesthetics, expression, composition, harmony and so on. In this interactive media work with illustrations of Swan and Turtles, to see in general the concept in the process of creating this artwork and as an accountability in the results of observation and observation in the creation of interactive media artworks for children with disabilities, in addition to instilling ethics through illustrations of the fable of Swan and Turtle. Here are the stages in the process of creating interactive media artwork:

### **1. Exploration**

The first stage in this study is exploration, carried out by means of observation and interviews to obtain data on the problem. Observations were made at Special Needs School (SLB) and interview activities were carried out on educators at the school and psychologists. By making observations, creators can find out the needs of children with disabilities which will later be realized in an interactive media. At this stage, imagination emerges, followed by thinking, responding and interpreting about the chosen theme to be in line with the concept of art creation.





**Figure 2.** Relief of Swans and Turtles on the wall of Mendut Temple  
 (Source: Ratih, 2024)

## 2. Design

The second stage is design, in this stage it provides a greater opportunity for creators to develop their imagination. Designing activities include: experimentation, differentiation, considering, and harmonizing. The result of improvisation is the sketches produced by the creator in the form of alternative sketches and selected sketches. Sketching is the initial stage in the process of creating a work of art, where the author makes sketches of ideas or concepts as a visual representation of the idea to be realized. In the context of artistic research, sketching helps writers visualize concepts and ideas developed through literature study (Ashma' Abdillah et al. 2024). Color, texture and compatibility selection.



**Figure 3.** Sketch of Artwork Interactive Media  
 (Source: Ratih, 2024)

## 3. Realization

The last stage is the realization, at this stage it is the realization of various stages that have been carried out previously including the final completion or finishing. The embodiment of forms that refer to alternative sketches becomes the desired form of artwork.



**Figure 4.** *Sourcing* process (washing the fabric thoroughly to clean it chemical residues and starch on fabrics)  
 (Source: Ratih, 2024)



**Figure 5.** Drawing, *molani* (the process of tracing batik motifs on fabric)  
(Source: Ratih, 2024)



**Figure 6.** *Nyanting* process (carving hot wax on the fabric using canting)  
(Source: Ratih, 2024)



**Figure 7.** The *nyolet* process uses the dye of remasol  
(Source: Ratih, 2024)



**Figure 8.** Batik fixation and washing process  
(Source: Ratih, 2024)



**Figure 9.** The *nglorod* process uses a mixture of soda ash powder  
(Source: Ratih, 2024)



**Figure 10.** Welding process of iron plate, iron pipe and wheel gear assembly and lacker  
(Source: Ratih, 2024)





**Figure 11.** Batik interactive media works  
(Source: Ratih, 2024)

The creation of this interactive media is in the form of batik interactive media artwork that can be played by children with disabilities by moving a hand-operated lever, used as a motion transmission, like the one on a bicycle to rotate or move batik that tells the fable of the Swan and the Turtle. According to Nurita (2018), interactive learning media is very important for children, can clarify messages and values, and improve learning processes and outcomes, this is in line with the opinion of Nurhandayani (2024), media that are considered suitable for children to increase the effectiveness of their learning process are through the design of educational toys that are specifically designed to instill educational values in children (Adila, Bahri, and Azhar 2024). When teachers or parents tell the story of the fable of the Swan and the Turtle, students move the lever using their hands while listening to the story, this aims to make students focused, their motor skills are trained and their senses are sensitive to the texture of the fabric by touching the textured batik fabric. From fable stories, students can learn about moral messages and character values. Fable stories teach the goodness and educational value of the younger generation. Fun learning strategies are needed to engage students, with effective learning media to improve communication and interaction between teachers and students (Muryasari et al. 2023).

## CONCLUSIONS

Based on the results of this study, it is an interactive media of batik with learning the fable stories of the Swan and the Turtle by using the written batik technique in the process of realizing visually interesting illustrations of fable stories, in addition to preserving batik as a cultural heritage and batik is not only a fashion product, batik can be used as an interactive media for children with disabilities in the learning process. Through the creation of batik interactive media, the author tries to create learning media that is not boring and fun for children with disabilities. Interesting interactive media is not only to stimulate sensory, fine motor and train concentration, but from these interactive media also teach ethics that contain character values. The selection of Swan and Turtle reliefs for the education of blind children introduces fable stories carved on the walls of Mendut temple, in this story contains a moral message of mutual help to provide help to anyone who needs help or help, besides that there is also a moral message in the form of an attitude of holding fast to the promises that have been spoken.

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