



Analysis of Students' Creativity Level through Upcycling Crafts from Used Plastic in Class IV Elementary School

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Abstract

This study aims to analyze the level of creativity of fourth-grade students of SDN Tidar 4 Magelang City through upcycling crafts from used plastic in fine arts learning. The research method used in this research activity is descriptive qualitative, focusing on three problem formulations: 1) the environment of SD Negeri Tidar 4, 2) the process of learning fine arts crafts from used plastic, and 3) the level of student creativity in producing upcycle crafts. Data were collected through observation, interviews, and documentation. Data validity was tested using triangulation of sources and techniques. The subjects in this study were all students and teachers of grade IV SDN Tidar 4, totaling 24 students. The results of this study revealed that the majority of students at SDN Tidar 4 showed sufficient creativity in learning fine arts through making upcycled crafts from used plastic. However, there is still a small number of students who need more motivation in order to express their creativity in creating works from used plastic cups. This is due to their fear of trying something new and lack of experience in interacting with art.

Keywords: creativity; upcycling; used plastic

INTRODUCTION

Creativity is an important aspect of students' self-development, especially in learning in elementary school (Ihsan et al., 2023). This ability allows students to think critically, find innovative solutions, and produce original works. Children's creativity is characterized by the existence of children thinking creatively and can unite two ideas that are original (Husnu, 2021). Learner creativity is the ability to generate various ideas through a broad and varied thought process (Probosiwi & Dewi, 2020). In this 21st century, creative thinking skills are part of higher-order thinking skills. These skills help improve students' process skills and learning outcomes. So, the ability to think creatively is very important for students to have (Hagi & Mawardi, 2021). This process supports active learning, where students are not only recipients of information but also creators of knowledge. The current implementation of art education that occurs in the field emphasizes more on the process of transferring knowledge and skills, even though the ideal of an educational process is to be able to foster and provide a forum for children's creativity and imagination that is oriented toward understanding themselves and their environment (Ary, 2019).

In formal education, the development of creativity is often associated with fine arts subjects, as art provides an expression space for students to explore various media, techniques, and ideas. Fine art not only serves as a medium to develop aesthetics and visual sensitivity but also becomes an effective means to train high-level thinking skills that are highly relevant in

everyday life. Since art basically emphasizes more on children's enjoyment and creative process rather than the end result, children should be given the freedom to explore their creativity through art (Anggun et al., 2024). Through art learning, students are encouraged to express their ideas and creativity in the form of artworks. This ability can be developed through various activities, such as observing, evaluating, analyzing, and appreciating works of art, both inside and outside the classroom (Safitri et al., 2023). Increasing children's creativity is done through various learning activities that aim to hone basic abilities to foster creativity. The purpose of increasing creativity is to form children who are creative in thinking, speaking, doing hand sports, art sports, and body sports to train fine motor and gross motor skills (Rachmawati, 2017). The process of increasing children's creativity is influenced by several aspects, including: (1) fluency; (2) flexibility; (3) originality; (4) elaboration; and (5) sensitivity.

Fine arts education has great potential as a learning tool that is relevant to global issues, one of which is environmental issues. The environment has an important role in education. The environment is something that is in the surrounding nature and has an influence on individuals (Ary, 2018). Currently, the issue of plastic waste is one of the main challenges facing the world community. According to data from the Ministry of Environment and Forestry (KLHK, 2022), Indonesia produces more than 64 million tons of waste each year, and about 15% of it is plastic waste. Plastic waste, which is difficult to decompose, is a serious threat to environmental sustainability (Karim & Mel, 2025). As the population in Indonesia increases, daily waste production also increases, making recycling plastic waste an effective solution to reduce its volume (Masrifah et al., 2019). In this context, education can play an important role in shaping students' awareness of environmental impacts while providing creative solutions. Education is the key to a country's success and has a very important role, especially through the formal education system in schools involving teachers, students, and various supporting facilities (Putri & Ary, 2024).

Currently, environmental issues are one of the main focuses in various sectors, including education (Muliadi & Nasri, 2023). The amount of plastic waste in the school environment makes an idea for teachers in utilizing used goods to encourage student creativity. An approach that can be done is the concept of upcycling. Upcycling is an innovative method of processing used goods, such as plastic waste around us, so that they can be reused (Putri & Suhartini, 2018). In this context, upcycling focuses on processing household plastic waste into products with better quality than before in terms of both aesthetics and functionality. The purpose of upcycling is to transform used items into more useful items without going through the material processing process (Nefilinda & Siwi, 2022). The utilization of upcycled materials, such as used plastic, in art learning not only aims to develop students' creativity but also to raise ecological awareness from an early age. By utilizing plastic waste as art media, students are invited to think critically about environmental issues while producing aesthetically valuable and functional works of art. In addition, this activity can build students' awareness of their social responsibility towards the surrounding environment. The utilization of plastic waste in art learning can be an effective solution. Through this approach, students are invited to explore their creativity by creating handicrafts from plastic waste.

Based on previous research related to children's creativity in fine arts learning, this study has novelty with previously tested research in different places and subjects. Research by *Ihsan et al.* (2023) conducted at SD Negeri 1 Panjang focused on analyzing the level of student creativity

through collage techniques using origami paper. The results showed that the level of creativity of SD Negeri 1 Panjang students was still low due to limited learning media, uninteresting learning methods, and lack of appreciation from teachers. Meanwhile, research by (Putri & Suprayitno, 2022) on SBdP learning collage material in class II Darul Muta'alimin Tawang Sari Sidoarjo. This research is a Classroom Action Research (PTK) with the aim of increasing the creativity of students. The results of this study indicate an increase in student creativity, with data on teacher activity in collage learning increasing from 68.75% in cycle I to 88.75% in cycle II. Likewise, the results of student work, which in cycle I only reached 25%, increased to 75% in cycle II. This shows that the use of recycled materials in making collage work can increase student creativity in making collage work.

Seeing the discussion on the results of the study is certainly different from the results that have been studied in the field by previous researchers, both in terms of methods, research locations, subjects, and focus of discussion. This research has the following formulations: 1) the environmental conditions of SD Negeri Tidar 4, 2) the learning process of fine arts in class IV, and 3) analysis of the level of student creativity in producing upcycle crafts. Based on this background, the researcher is interested in conducting research with the title "Analysis of Students' Creativity Level Through Upcycle Crafts from Used Plastic in Grade IV Elementary School". The purpose of this study is to determine the level of creativity of fourth grade students of SD Negeri Tidar 4 Magelang City through upcycling crafts from used plastic in fine arts learning. By understanding how upcycling-based art learning can affect students' creativity level, this research is expected to contribute significantly to the development of art learning strategies that are innovative, relevant, and support the sustainability agenda through plastic waste reduction. In addition, the findings of this research are also expected to provide references for educators in designing more effective and contextualized learning programs.

METHODS

This research was conducted at SDN Tidar 4 Magelang City, especially fourth-grade students in the even semester of the 2023/2024 academic year. This study used a descriptive qualitative method to analyze the level of student creativity in learning fine arts based on upcycling crafts from used plastic. This method was chosen because it is able to provide an in-depth description of the phenomenon under study, especially in the context of the learning process and the development of student creativity. The subjects of this study were fourth-grade students and teachers of SD Negeri Tidar 4 Magelang City. There are two kinds of data sources, namely primary sources, that are collected directly from the object of research, while data collected through other people or documents are called secondary sources. Based on this, primary data sources were collected by researchers through observation and interviews, while secondary data were obtained through documentation activities.

Data collection techniques in this study were through observation, interviews, and documentation. This study used non-participant observation through direct observation and was not involved in the activities observed. Observations were made to observe the condition of the school environment as well as student activities during the fine arts learning process in class IV. Interviews were conducted with the principal, grade IV students and teachers, and parents. Interviews were conducted to explore in-depth information about the state of the school

environment and the learning process of fine arts in class IV. Meanwhile, documentation in the form of photos and videos was also used to record the state of the school environment, the art learning process, and the creative process of students and the results of their work. The instruments used in conducting this research were interview guidelines, observation sheets, field note sheets, and audio and video recorders.

Meanwhile, this research uses data analysis techniques with data collection, then data reduction, data presentation, and conclusion drawing on the data that has been obtained. Data collection through data triangulation techniques by combining several sources and methods to increase data validity. The data collected is descriptive in the form of narratives, interview transcripts, and field notes. Data reduction is done by summarizing data, grouping data, compiling summaries, and connecting information found. Data analysis of each research subject will be based on each indicator of creativity in fine arts learning activities, making crafts from used plastic. Data is presented in the form of narrative text. While the last stage of data analysis by drawing conclusions and verifying the data that has been obtained.

RESULTS AND DISCUSSION

This research was conducted in class IV of SDN Tidar 4 in the 2024/2025 academic year. The purpose of this study was to analyze the level of creativity in grade IV students at SDN Tidar 4 Magelang City through upcycling crafts from used plastic in learning fine arts. Based on the research results, there are several discussions, including (1) the environmental conditions of SD Negeri Tidar 4, (2) the process of learning fine arts in class IV, and (3) an analysis of the level of creativity of students in producing upcycle crafts. A more detailed discussion related to this description is as follows.

School Environment

SDN Tidar 4 is located on St. Beringin V Number 1, North Tidar, South Magelang Sub-district, Magelang City, Central Java Province. The environment at SDN Tidar 4 looks clean, neat, and beautiful. There is no trash scattered around the school. Hygiene facilities in this school are very adequate, as seen from the presence of trash bins scattered in various corners of the school so as to support students' habits in disposing of garbage in its place. In addition, the well-maintained garden provides a beautiful and comfortable atmosphere for students and educators in carrying out teaching and learning activities. A clean and organized school environment is one of the factors that support in creating a conducive learning atmosphere. This is commensurate with the opinion (Nurhayati et al., 2020) that a good school environment will be able to improve the quality of education. Therefore, it is necessary to make efforts to maintain the environment in order to create a conducive learning atmosphere. The clean environment at SDN Tidar 4 is shown in Figure 1 below:



Figure 1. School Environment

Based on the interview conducted with the principal, it was found that in an effort to maintain school cleanliness, the standard of cleanliness in this school can be said to be high, which is indicated by the good level of awareness and understanding of students in maintaining the cleanliness of the school environment. The students have been accustomed to throwing garbage in its place according to the predetermined categorization. In addition, to support school hygiene and realize an environmentally friendly school, the school has accustomed students to sorting organic and inorganic waste. This is in line with the school's status as an *adhiyayata* School. *Adhiyayata* is a program used by schools to create an ideal learning environment for all students and raise awareness of the importance of protecting the environment. The purpose of this program is to encourage school members to take responsibility for protecting and managing the environment that supports sustainable development with good school governance (Sari & Nurizka, 2021). The government, through the Ministry of Environment designed and implemented the *adhiyayata* program to instill the character of students' concern for the environment (Fathurrahman et al., 2022). The *adhiyayata* program is very good for building a prosperous society and caring for the environment because it teaches children from a young age to care for and about their environment (Fauziah, et al., 2023). In 2024, SDN Tidar 4 was ranked first in the *adhiyayata* School assessment conducted by the Magelang City Environmental Agency. This further strengthens its reputation as a school that cares about ecology and environmental sustainability. This award shows that the instruments required in the *adhiyayata* School assessment have been fulfilled and the school has met the criteria as an environmentally friendly school.

Education based on the environment helps learners adapt to the conditions around them, which ultimately plays a role in shaping and developing their personality and potential as individuals who will live in the community. *Ovide Decroly* put forward the concept of *Ecole pour la vie par la vie*, which means that schools come from life and are intended for life (Hamalik, 2003). According to Ary (2019), the environment has a crucial role in the educational process because it greatly influences individual behavior. The environment can include social, individual or personal, natural or physical, and cultural environments. Environment-based education not only helps students adjust to their surroundings but also forms a mindset that is more responsive and adaptive to social changes and life challenges. In addition, this approach allows learners to develop critical thinking skills, creativity, and the ability to collaborate in various real situations. Interaction with the environment also encourages more contextualized and meaningful learning, where students can connect theory with practice directly.

In an effort to maintain the cleanliness of the school environment, SDN Tidar 4 has implemented various strategic measures involving all elements of the school, namely the

formation of a cleaning team consisting of BK teachers and students who play a role in instilling clean living habits and maintaining the beauty of the school environment. In addition, the school also implements the clean friday program which is carried out every month by all school members. Other programs, such as class picket and teacher picket, are also implemented to ensure that school cleanliness is maintained consistently. Teachers not only guide students but also play an active role in maintaining the overall cleanliness of the school environment. It is not only the responsibility of students to keep the school environment clean, but also teachers and everyone involved in the school (Susanto et al., 2024). Through the implementation of these strategies, it is expected that the awareness and responsibility of all school members towards environmental cleanliness can be increased in a sustainable manner.

The school has also implemented a waste bank program as part of sustainable environmental management. In its implementation, students are responsible for collecting inorganic waste that can be recycled in their respective classrooms and then handing it over to the staff. The waste can then be used to make crafts or sold to waste collectors. This system not only creates a cleaner environment but also provides economic benefits through cooperation with waste collectors to optimize the recycling and selling process. The advantage of recycling used goods is that it not only cleans the environment but also has an economic value that makes it possible to make money through the waste bank program (Anita et al., 2023).

The principal also said that external support also plays an important role in the success of the school cleaning program. The involvement of the school committee, as well as the parents' association, actively monitors and participates in cleaning activities, such as helping organize classes, cleaning the school environment, and repainting if needed. In addition, support from government agencies, especially the environmental agency, not only plays a role in monitoring and supervising the *adiviyata* program but also provides input and becomes a resource for students and teachers. Education is a child's right and not a parent's obligation, so the government is responsible for providing children with the necessary guidance and educational supplies in their learning program (Andriana & Ary, 2023). With the support of various parties, this school has succeeded in creating a clean and comfortable environment and contributing to environmental conservation in a sustainable manner. This shows that all parties, including the school and outside the school, support the existence of creative programs or activities related to cleanliness and environmental management.

School environment management also contributes to supporting student learning, especially in fine arts subjects. When the environment is clean and well-maintained, we will feel comfortable doing various daily activities. Similarly, maintaining cleanliness in the school environment will make students and teachers feel comfortable doing learning activities. Thus, maintaining cleanliness is very important because it will have an impact on humans, the environment, and other living things (Ismail, 2021). With good management of used goods, students are not only taught to think creatively but also to have higher environmental awareness. The utilization of used goods in art learning helps students develop innovative skills in transforming items that are considered useless into something useful.

The Fine Arts Learning Process in Class IV

Based on the results of observations and interviews with the fourth-grade teacher of SDN Tidar 4, the fine arts learning process in IV has been going on very well and in accordance with the applicable curriculum. Fine arts learning is systematically designed through the preparation of teaching modules that include materials, methods, and media to be used. Before the implementation of learning, teachers prepare all equipment, including learning aids and media, to ensure the smoothness of the teaching and learning process. In this case the teacher is a component that affects the determination of success in learning (Ary, 2024). The learning methods used in this learning include scientific and contextual approaches. The scientific approach is applied through observation, exploration, and reflection on works of art, while the contextual approach aims to connect learning with the surrounding environment of students to make it more meaningful.

Constructivism theory argues that students build their understanding through direct experience and interaction with the surrounding environment, which is the basis for the Contextual Teaching and Learning (CTL) learning model. Based on research conducted by (Wibowo, 2022), the contextual learning approach is proven to be effective in improving students' motivation and learning outcomes in fine art materials at the elementary school level. This concept is based on the theory of constructivism developed by Jean Piaget and Lev Vygotsky, which emphasizes the importance of social interaction and experience in the learning process. Constructivism learning theory proposed by Piaget and Vygotsky highlights the importance of deep understanding and active exploration by students in the learning process. An inquiry-based approach is based on constructivism theory, where students are expected to construct their own knowledge through a process of investigation and analysis of artworks. In the context of art appreciation, students' active involvement in understanding and evaluating artworks is crucial to encouraging the development of their creativity (Fuadi, 2024).

According to Nurluthfiana (2023), constructivism is a view that states that cognitive development occurs through an active learning process, where individuals construct meaning and understanding of reality through observation and interaction. In other words, this theory emphasizes the role of individuals in shaping their understanding of reality, which can then be directed to develop their creative abilities. The learning media used by teachers in the learning process is quite diverse, including LCD projectors, images from the internet, and visits to computer laboratories to see art references in more depth. The use of these various media helps students to get inspiration and improve their understanding of the material being studied. Students' enthusiasm for fine arts learning is very high, especially in practical and explorative activities. The grade IV teacher said that the activity that students are most interested in is making art using objects around them because it can provide challenges and encourage students' creativity. In addition, this process helps students in developing critical thinking skills to process available materials into a meaningful work of art.

One of the materials in fine arts learning in Class IV is used plastic crafts. In this lesson, the teacher chose plastic cups used as the main media, considering that this type of waste is often found in the surrounding environment. The teacher develops the concept of upcycling crafts by turning used plastic into classroom window decorations. The main objective of this activity is to hone students' creativity in utilizing items that are seen as having no use value into something

more valuable. This learning not only emphasizes the technical aspects of making crafts but also provides insight into the importance of protecting the environment by reducing plastic waste. From the interviews, it can be seen that the use of the upcycling method arises from the need for learning that is relevant to the school's environmental conditions as an *adiwiyata* school. The concept was initiated by the teacher considering the school's policy on environmental conservation and the support of the principal, who strongly encouraged the implementation of this method in learning.

In the learning process, the teacher starts by playing an educational video about recycling plastic waste and upcycling crafts to provide initial understanding to students. Students prepare in advance the tools and materials that will be used, including plastic cups used as beverage packaging, glue, glue gun tools, scissors, and cutters. Materials are prepared from home on orders from teachers who are also communicated with parents. This proves that parents' involvement plays an important role in supporting the smooth learning of fine arts. Next, the teacher demonstrates directly how to make crafts from used plastic, and then students are given the opportunity to try themselves with teacher guidance if they experience difficulties. Students carry out this activity with focus until it is finished. Feedback on students' work is given in the form of grades and verbal appreciation, such as praise for their work. In addition, students' work is also displayed in the classroom as a form of appreciation for their efforts and creativity. The learning process of making crafts with used plastic cups is shown in Figure 2.



Figure 2. Learning Process of Making Crafts

Although the learning of upcycling crafts in fine arts subjects has been designed in an interesting way, according to the fourth-grade teacher from the interview results, there are still some obstacles to its implementation. Some students did not bring the necessary materials because they forgot, while there was one other student who did not actively participate because he lacked interest in art and was more interested in subjects such as Mathematics and Science. This caused the student's involvement in art activities to not be as optimal as other friends. To overcome this obstacle, the teacher took proactive steps by providing materials for students who did not bring them so that they could still participate in learning activities properly. Additional motivation is also given by the teacher to students who are less enthusiastic so that they are more enthusiastic about creating and understanding the importance of art in daily life. Through this approach, it is expected that all students can be more involved and gain maximum benefits from learning.

Analysis of Students' Creativity Level in Producing Upcycled Crafts

Creativity can generally be understood as the ability to generate ideas or products that are new, different, and unusual. Creativity enables individuals or groups to find innovative approaches to solving problems, often resulting in better and more original solutions than before. In other words, creativity is the ability to develop new ideas or methods to solve problems and turn them into opportunities. Creativity is something that has a relationship with ideas and imagination that arise from high curiosity (Hidayah et al., 2022). In the context of fine arts, creativity, as explained by Sumanto, includes the ability to discover, create, redesign, and combine old and new ideas into unique visual compositions with supporting technical skills (Yayuk Primawati, 2023). Creativity can be channeled in many ways, namely through the creation of works of art that have beauty value (Regi, 2020).

One way to measure students' creativity in fine arts learning is by inviting them to work on task-based projects. Through this activity, students are encouraged to explore their imagination in designing and creating a work of art (Safitri et al., 2023). The activity of making crafts from used plastic cups into window decorations is one way to assess the level of student creativity in processing recycled materials into works of art that have aesthetic and functional value. Using various objects that utilize the surrounding environment in learning makes students think more creatively and allows them to think freely and imagine what they feel and create (Santi & Anisah, 2019).

Based on the findings of the research at SDN Tidar 4, when learning fine arts on the material of making crafts from used plastic, it seems that students feel very enthusiastic and excited about working on this project. This can be seen when the teacher gives the task of making crafts from used plastic, students seem engrossed and focused on their work. So that at this stage, the level of student creativity is tested. This finding is in line with the opinion of (Yayuk Primawati, 2023), which states that creativity is an important part of the process of creating works of art. Fine art itself is closely related to creative activities, so it can be a place for students to imagine and develop their creativity. From the results of interviews with a number of grade IV students revealed that they felt happy to take part in learning and felt proud of the work they had made. The results of the crafts from class IV students can be seen in Figure 3.



Figure 3. Students' handicrafts

Rachmawati & Kurniati (2011) explained that student creativity can be measured by five main indicators, as described by Sandi (2022) are as follows: First, fluency, which is the ability to come up with similar ideas to solve a problem. Second, flexibility, which refers to the ability

to generate a variety of ideas to solve a problem outside the usual category. Third, originality, which refers to the ability to give unique or extraordinary responses. Fourth, elaboration, which is the ability to express the direction of ideas in detail to realize the idea into reality. Finally, sensitivity, which is the sensitivity to capture and generate problems in response to a situation.

First, fluency, overall students have been able to understand the instructions from the teacher, students are able to cut used plastic cup materials independently without help from the teacher. Students with high fluency in thinking can easily follow the steps given and assemble the hanger decoration without much difficulty. Students showed good fluency in generating ideas for making crafts. Although they were directed to follow the same shape as the example given by the teacher, most students were able to come up with small variations in design, such as certain color combinations or patterns on their crafts. This shows that students can think fast and generate many ideas even within the constraints (Probosiwi & Dewi, 2020). Second, flexibility, although students were given examples by the teacher, a small number of students showed flexibility in adapting the design to better suit their preferences, for example, by changing the arrangement pattern or decoration color. Students were able to arrange and connect the used plastic cups firmly and balance with the teacher's help in using glue. However, most students tend to stick to the same shapes as the examples given, indicating that their flexibility of thinking is still limited. This suggests that in the context of learning, students need to be given more space to explore various possibilities in making work (Anggun et al., 2024).

Third, originality, the indicator of originality in this task, is still not optimally developed because students tend to imitate the examples given by the teacher without making significant modifications. However, in general, students have been able to make their own handicrafts whose colors and motifs of plastic cups are different from other friends. Some students have been able to try to give a unique touch, such as adding shapes or patterns to the crafts they make. To improve this indicator of originality, teachers can provide additional challenges, such as asking students to create their own design variations. This in line with the role of creative thinking in problem-solving and the importance of higher-order thinking skills, which includes originality (Hagi & Mawardi, 2021). Fourth, elaboration, some students have been able to cut, paste, and arrange plastic cups into wall hangings with full accuracy and responsibility for their work. Some students showed accuracy in arranging the hangers to make them look more attractive by ensuring that each element was aligned, sized, and neat. However, some students still pay less attention to details in the completion of their work, so that the final result looks less neat or less than optimal in aesthetics. Strengthening this skill can be done by encouraging students to pay more attention to small details in the process, as suggestion by Safitri et al. (2023) that creative development can be supported through structured learning activities, including evaluation and reflection on artworks. And the last, sensitivity, students have shown their understanding of the importance of recycling plastic waste through this activity. They realize that used plastic can be turned into something useful and aesthetically pleasing, although this awareness is triggered more by teacher direction than personal initiative. Students who have a high sensitivity to environmental issues were more enthusiastic in this activity because they realized that they were making a useful recycling effort (Putri & Suhartini, 2018; Muliadi & Nasri, 2023). They also showed an understanding of the importance of reducing plastic waste through creativity. Some students were also able to recognize challenges or shortcomings in their projects, such as imbalances in

construction or difficulties in attaching parts of the craft. They showed an active response by finding solutions to improve or enhance the end result.

Based on the analysis of student creativity using these indicators, it is found that there are most students in grade IV SDN Tidar 4 who have illustrated extraordinary creativity through crafts from used plastic. However, there is still a small number of students who need more support in order to bring up their creative ideas. Efforts that can be made are through providing motivation to help them explore their creative potential. The existence of more motivation and support to students will be able to achieve success in creating work. This is in line with the opinion of (Sulistiyani, 2022), which reveals that success is influenced by high motivation, the need for skills, and support from parents. The factors that cause creativity to be lacking in some students in class IV SDN Tidar 4 are due to internal aspects within students. Some of them still feel hesitant and afraid to try something new, more imitating what the teacher exemplifies. This will hinder the development of their creativity. Through their experience in seeing or interacting with art, both at home and in various other opportunities, students are expected to develop their creativity in making crafts from used plastic (Husnu, 2021).

The relationship between the school environment, the art learning process in grade IV, and the level of student creativity are closely interrelated in supporting the development of students' creative thinking skills and artistic expression. The following is an analysis of the relationship between the three aspects. First, a conducive school environment, in terms of facilities, learning atmosphere, and support from teachers and peers, plays an important role in supporting art learning (Nurhayati et al., 2020). Schools that have adequate art spaces, availability of tools and materials, and freedom of expression will allow students to be more active and explorative in learning. In addition, a school culture that values creativity can also increase students' motivation to create art. Second, the learning process of fine arts that is designed in an interactive and experience-based manner will greatly affect the level of creativity of students. Learning methods that involve exploration of various techniques, art appreciation, as well as discussion and reflection on artworks will help students develop creative thinking skills, originality, and flexibility in their work. If learning is done with an inquiry or project-based approach, students will be more involved in finding innovative artistic solutions. Third, a school environment that supports freedom of expression and provides a variety of creative stimuli can enhance student creativity. Factors such as teacher support in providing creative freedom, an inspiring classroom atmosphere, and opportunities to collaborate and share ideas with peers can enrich students' experiences in exploring new ideas. If the school environment is not supportive, such as a lack of facilities or restrictions on expression, then students' creativity can be hampered. As the statement of Ismail (2021) that maintaining a clean school environment positively affects student learning and comfort.

These three aspects support each other and contribute to improving student creativity in grade IV. A good school environment creates a supportive learning atmosphere, while an interesting art learning process can optimize students' creative potential. If the environment and learning methods are managed well, then students will have greater opportunities to develop their creativity to the fullest. By comparing the three data sources, it can be seen that there is an agreement between the results of observations, documentation, and interviews. From the observations made, it was found that the environment of SDN Tidar 4 is clean, tidy, and beautiful. The fine arts learning process in class IV runs smoothly, students are actively involved in the

learning process, the learning environment is comfortable and clean, and the interaction between class IV teachers and students during learning is quite good. Through observation, the results of students' craft work, some of which already look neat. Documentation is used to collect data in the form of written documents, images, or recordings that support the research. Based on the results of the documentation, it was found that the state of the school environment is clean, the learning process of fine arts in class IV is running well and conducive, and the results of students' handicrafts from used plastic are documented through photos and videos.

From the interview, the principal revealed that students' awareness of environmental cleanliness at SDN Tidar 4 is high. All school members are involved in environmental management activities. Teachers revealed that students are active in learning, but there are students who still need more direction. Grade IV teachers and parents also revealed that the principal supports policies and activities related to environmental management, one of which is through the *adiwiyata* program. Principals, teachers, and parents also revealed that they support students' learning activities regarding fine arts, making crafts from used plastic to develop students' creativity. The results of interviews with students found that they felt happy to participate in learning activities and felt proud of the work they had made.

By comparing the three data sources, it can be seen that there is agreement between the results of observations, documentation, and interviews. The observation shows that the environment at SDN Tidar 4 is clean, tidy, and well-maintained, which is supported by documentation and the principal's statement in the interview. The fine arts learning process of making crafts from used plastic upcycling in class IV runs smoothly and is conducive, and students play an active role in learning activities. This learning is supported by all parties, including the principal and parents. This statement is supported by documentation and interviews with principals, teachers, parents, and grade IV students. While the level of student creativity through crafts from used plastic in class IV is included in the sufficient category. This is supported by documentation and interviews from teachers and grade IV students. Based on the discussion of data from these three methods, it can be concluded that environmental conditions, the process of learning fine arts in grade IV, and the level of student creativity are closely related. Data obtained from various sources provide a more comprehensive picture of the analysis of the level of student creativity regarding upcycle crafts from used plastic in grade IV, thus strengthening the validity of the research results.

CONCLUSIONS

Conclusion

SDN Tidar 4 is an *adiwiyata* school with a clean, beautiful and well-maintained environment. The school is located at St. Beringin V Number 1, North Tidar, South Magelang Sub-district, Magelang City, Central Java Province. The level of awareness and understanding of students is quite high in maintaining the cleanliness of the school environment. The programs regarding cleanliness and environmental management in the school run well. All school members are involved in these activities. A clean environment can contribute to creating a conducive learning atmosphere. Through good collaboration and support between teachers, students, principals, government, and other parties, the implementation of school programs is successful

The fine arts learning process in class IV runs very well and in accordance with the applicable curriculum. The fine art learning activities include making upcycled crafts from used plastic that run smoothly. The teacher provides the material well. If students experience difficulties, the teacher is ready to provide assistance. During the activity, students were active and enthusiastic in participating in learning activities. Students feel happy and proud of their own work. Students' works were appreciated by the teacher by displaying them in the classroom. The creative idea of applying upcycling in making crafts from used plastic cups is an initiative from the teacher with support from the principal. The management of plastic waste through the upcycling method into more valuable items, in addition to reducing plastic waste, can also hone students' creativity in making handicrafts.

Creativity is very important to develop from an early age. Through art learning activities in grade IV, such as making recycled plastic crafts, students are encouraged to explore their imagination in designing and creating a work of art. This activity is the right step to measure students' creativity levels. Based on the five main indicators in measuring creativity, it was found that the creativity of grade IV students of SDN Tidar 4 in making crafts from used plastic was well developed, especially in the aspects of fluency and elaboration. Students are able to generate ideas, understand instructions, and compose works with accuracy. However, the aspects of flexibility and originality still need to be improved because most students tend to follow the examples given by the teacher without much modification. In addition, the aspect of sensitivity to environmental problems is also developing, although it is still driven by teacher direction. Most students have been able to describe their creativity and a small number of students still need additional support to bring out their creativity. Factors that inhibit student creativity include a lack of confidence and fear of trying new things. Therefore, motivation, support, and wider exploration opportunities are needed so that students' creativity can develop optimally. Thus, it can be concluded that the level of creativity of fourth-grade students of SDN Tidar 4 Magelang City is in the moderate category.

Suggestion

Recommendations that can be given to develop students' creativity in fine arts learning based on the results of this study are to implement the upcycling method for the utilization of plastic waste into something more useful. Programs on environmental management and programs to hone students' creativity need to be improved. Through these programs, students can be more motivated to explore new ideas in their work. In addition, it is necessary to increase optimal support from all related parties so that the implementation can run smoothly. Further research needs to be conducted to determine the level of student creativity in various types of art projects.

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