

PARTICIPATION DESIGN OF FABRIC MATERIAL UTILIZATION

STUDY CASE: IMPROVING CREATIVE PROCESS OF PAUD HI BKB KEMAS KUTILANG

Putri Anggraeni Widyastuti¹, Ahmad Fuad², Ratnawati Susanto³

^{1,2,3}Department of Elementary School Teacher Education, Faculty of Teacher Education
and Science, Universitas Esa Unggul, Indonesia

e-mail: putri.anggraeni@esaunggul.ac.id¹, ahmad.fuad@esaunggul.ac.id²,
ratnawati@esaunggul.ac.id³

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Abstract

Fabric is the main material in producing bags in Kadugenep village. The purpose of the research is to involve participatory design in the design of learning products that can improve the creative process of PAUD HI BKB Kemas Kemas students, in order to utilize the potential of fabric material which is a natural resource in Kadugenep Village. Qualitative research was conducted by collecting data from site observations, interviews with related parties, and literature studies related to the utilization of fabrics by PAUD activities through a participatory design approach. Community service activities have been held at PAUD HI BKB Kemas Kutilang in the post-pandemic era in 2022 and new normal in 2023 as a form of utilization of one of the fabric materials. Flannelette and calico fabric were chosen in the activity. The combination of calico fabric on the drawstring fabric and flannel fabric on the floral motif is applied using a textile glue paste technique that is safe for children of early childhood age. The flannel fabric was applied using a weaving technique on the plastic frame of the shell-shaped handheld fan to produce a plane. In conclusion, the design of learning products formed based on the participation of PAUD HI BKB Kemas Kutilang students can finally be applied by utilizing calico and flannel fabric materials that are safe and comfortable.

Keywords: Creative process, Fabric material, Participatory Design, Utilization

INTRODUCTION

Fabric is a material formed through a weaving process where horizontal threads and vertical threads are combined to produce a plane through the weaving process. One of the oldest weaving tools to produce cloth is the sling weaving before being continued by the ATBM Machine (Non-Machine Weaving Tool) and then produced using a weaving machine that utilizes electrical energy. In Indonesia itself, woven fabrics such as lurik or ulos have been used to wrap their goods since the colonial era. It is no wonder that Indonesians themselves have been accustomed to this fabric material since time immemorial. The utilization of fabrics in several villages in Indonesia is still maintained both in the process of making the

fabric itself and also making products that use fabric materials such as bags. Like the village of Kadugenep, which has the nickname of the village of a thousand bags, located in Petir District, Serang, Banten, this is a village that utilizes cloth as a bag-making production to meet the demand in the capital city. Although Kadugenep Village's original products such as klakat are produced by several craftsmen in this village who certainly use bamboo materials. No wonder if we look at the geography of Kadugenep Village which is surrounded by bamboo plants and also rice fields to support the production of klakat.

In Kadugenep Village itself there are still 3 PAUD, one of which is PAUD HI BKB Kemas Kutilang. This PAUD has arguably 3 separate rooms intended for learning activities. The first room with the smallest size is used as a room for teachers and principals as well as administration. The largest room is used for joint activities and is also intended for the largest number of students. A separate room of medium size is used for a small or medium number of students.



Image 1 Klakat and Bag Production in Kadugenep Village. (Source: Widyastuti, 2022)



Image 2 Taking Pictures in front of the Survey Site, PAUD HI BKB Kemas Kutilang (Source: Widyastuti, 2022)

PAUD HI BKB Kemas Kutilang has a not too large field that can be used for ceremonial activities or other school activities which is also equipped with play facilities such as slides and others, which are certainly not in new condition. But even though this PAUD is established in Kadugenep Village, which has the main potential for the production of cloves and bags, it has not utilized the resources of bag or cloves products. At least, in fact, the most production in this village is the production of bags that utilize fabric materials. In Kadugenep Village, the production

of bags is not only produced through craftsmen who gather in a small and medium enterprise, but also produced in people's homes. Even in the homes of Kadugenep villagers, at least one sewing machine and one obras machine are found as tools for producing bags. With such conditions, PAUD students in Kadugenep Village are accustomed to seeing their parents sewing and producing bags from fabric materials. Seeing this condition, it can be used as a basis in designing a product that utilizes the potential of fabric materials in Kadugenep Village for PAUD HI BKB Kemas Kutilang students.

From the above problems, the next problem arises, namely the role of participatory design in improving the creative process of PAUD HI BKB Kemas Kutilang students by utilizing fabric materials? The purpose of this research is to prove the role of participatory in improving the creative process of PAUD HI BKB Kemas Kutilang students through the utilization of fabric materials. The benefits obtained from this research are the existence of learning products that can be used by PAUD HI BKB Kemas Kutilang students to improve the creativity process through the utilization of fabric materials as a potential resource for a superior product in Kadugenep Village.

LITERATURE REVIEW

Primadi said that the creative process is a learning process in humans, whose process is always surpassed by humans in their learning throughout their lives (Anggraeni Widyastuti et al., 2021). He also said that the creative process is a physical, creative, and ratio ability that is realized in a balanced and dynamic manner that integrates with each other in an enrichment, so there is no need to differentiate because the level of appreciation and deepening of the creative process is different. Therefore, to appreciate and deepen the creative process of children can be done by playing because play is a need that can help children develop motor, cognitive, language and social abilities, values and attitudes (Pandanwangi et al., 2022).

Therefore, the creative process in learning can actually be derived in an educational curriculum, such as in early childhood education learning. Teachers have a role in curriculum development and testing by providing feedback so that it can be used as a contributing part in curriculum improvement. Through a participatory approach, teachers ensure that they are active and involved in the design process to increase their knowledge and self-efficacy in teaching STEM-themed topics. Through participatory curriculum design, early childhood education teachers are empowered to contribute their expertise and perspectives in producing a high-quality curriculum that can be piloted in preschool classrooms to assess its impact on teacher and learner outcomes (John et al., 2018). Unfortunately, this participatory approach has not involved a participatory design approach in the creation of educational game tools that utilize the potential of the preschool location.

Therefore, there are several things that must be considered in designing educational game tools, including: (1) contains educational value, (2) is safe and harmless to children, (3) is attractive in terms of its shape, (4) is in accordance with the interests and level of development of children, (5) is simple, easy and easy to obtain, (6) is durable not easily damaged and easy to maintain, (7) size and shape according to the age of the child, and (8) serves to develop children's creativity and intelligence

(Azizah et al., 2024). The reason of instructive amusement devices within the early childhood learning prepare is as a device for guardians and instructors or teachers to: (1) Give inspiration and incitement for children to carry out different exercises to discover unused encounters; (2) Clarify the learning material given to children; (3) Give joy to children in playing (learning) (Kusuma & Listiana, 2021).

One of the Educational Game Tools commonly used by PAUD children in general is in the form of busy book media in an article entitled Utilization of Flannel Cloth as a Teaching Tool for Early Childhood, with the theme of recognizing numbers, recognizing letters, and counting, which is applied in community service activities. The purpose of this community service activity is to increase the creativity of children's handicrafts which can be seen from the addition of trinkets to the results of their work (Qomariyah et al., 2022). Unfortunately, this article does not involve a participatory design approach, although this article proves that fabric materials are often used in the design of learning products for PAUD. In designing educational game tools, a modified Thiagarajan and Semmel model can be used. This design model consists of four stages: defining, planning, developing, and disseminating. This model is suitable for the development of learning media that is beneficial for the creativity of educators and also students in learning. Therefore, the Thiagarajan and Semmel development model is considered suitable for application (Ekayati, I. A. S., & Henita, 2021).

This model is similar to the designing model which represents that design can start from researching a problem, then proceed with the concept of solving the problem, followed by product development so that in the end the product is ready to be produced and launched to the market (Morris, 2016). The design process generally uses design thinking which includes the emphasize stage, define stage, ideation stage, prototyping stage, and evaluate stage (Hidayat et al., 2023). Design thinking is the process of exploring structures that have meaning in their general form that works by acquiring meaning through verbal language (Brian, n.d.). The design process is also found in the participatory design approach in an article entitled Uncovering placemaking needs with(in) a kindergarten community: a cross-disciplinary approach to participatory design. It shows the involvement of students and teachers as active participants to contribute their contextual experience needs in the design process. There is also a democratic right to involve both parties to make decisions that lead to innovative design solutions for kindergarten environments that are user-friendly and supportive through feedback and collaboration between all parties (Economidou et al., 2023). This Participatory design approach focuses on designing placemaking needs with(in) a kindergarten community, certainly different from this paper which focuses on designing Educational Game Tools that utilize the potential location of early childhood education in Kadugenep Village.

METHODOLOGY

The method used is a qualitative research method with data collection through observation, interviews, and literature studies related to this research. The approach used is participatory design, which has stages of planning and relationship, design and also monitoring and evaluation (Ferguson & Candy, 2014). The planning and relationship stages involve planning the location of community service activities carried out by the team in Kadugenep Village through observations and interviews

with interested parties, before deciding which partners to choose in carrying out activities. PAUD HI BKB Kemas Kutilang was chosen as the location for community service activities. At this stage, the team must maintain good relations with PAUD HI BKB Kemas Kutilang, especially the teachers there in order to understand the problems faced by them, especially to improve the creative process of their students. The data collection process was carried out during the design stage of participatory design through literature and documentation that can be used as a basis for knowledge in the process of designing learning products for HI BKB Kemas Kutilang PAUD students.

At the monitoring and evaluation stage, the designed learning media products were applied to PAUD HI BKB Kemas Kutilang students on site and well documented. From the results of this activity, it will be used as a source of data to carry out the evaluation stage of this activity. It is hoped that it can be used as a review material if one day similar community service activities are carried out involving the use of fabrics with the same target market.



Image 3 Chart of the Process of Applying Participatory Design. (Source: Widyastuti, 2024)

RESULT & DISCUSSION

The utilization of fabric materials in PAUD HI BKB Kemas Kutilang located in Kadugenep Village has actually been carried out in 2022 and 2023. The following will explain the stages of the participatory design approach in this activity, including:

Planning and relationship.

The year 2022 is a period of transition or adaptation to the new normal era. However, the use of masks to prevent the Covid virus is still being used. Therefore, a product that can be used to store masks for PAUD HI BKB Kemas Kutilang is needed. Drawstring bag made of calico was chosen as a material that can be used as an application of participatory design through counseling activities for PAUD HI BKB Kemas Kutilang students.

The selection of drawstring bags made from calico with small sizes is certainly inseparable from the main production of Kadugenep Village. The calico fabric was chosen because it had never been used during bag production in Kadugenep Village, which was obtained during the survey. In addition, this calico fabric has characteristics like woven fabrics in general with a texture that is more flexible than woven fabrics. This type of fabric has also never been used in community service activities with the target market of PAUD students in general with some literacy searches related to what materials are used in these activities for PAUD students.

The design stage

One of the creative ideas is to apply the decorative technique of floral motifs by utilizing pieces of flannel and buttons in the shape of flowers or butterflies. This decorative technique is done by attaching the two materials using a special sequin glue that is safe for children.

The extension process also involved the product design, interior design and visual communication design study programs to assist and document this activity. The results of this counseling activity can also be taken home by PAUD HI BKB Kemas Kutilang students who have followed the process of applying the technique to drawstring bags according to the module in the creative package.

The monitoring and evaluation stage.

The creative package was chosen as an alternative in counseling activities at the PAUD level in general. This started when conducting community service activities in PAUD during the pandemic. It is important to pay attention to aspects of social restrictions such as touching each other within a certain distance at that time to maintain a safe distance. Some creative packages containing modules, tools and materials are packaged in plastic so that these packages have the potential to be teaching materials that can and are ready to be sold in the market as well as used to maintain distance between students and the activity team itself.

Knowing that this creative package has the potential to become a ready-to-sell learning product, the community service activities in the second year (2023) with the same location are still designing learning products that are not only ready to be sold but are easily used by students at the PAUD level in the event of a pandemic. In 2023, the utilization of fabric is still carried out because it looks at the products produced by the village, namely bags and klakat. This type of fabric is a fabric commonly used in learning products at the PAUD level in general, but the products produced are certainly about busy books that can be used to improve the cognitive process of these students. Understanding the geographical conditions of Kadugenep Village is one of the foundations in the process of designing learning products for HI BKB Kemas Kutilang PAUD students.



Image 4 Extension Activities Involving Participatory Design at PAUD HI BKB Kemas Kutilang Utilizing Calico Cloth Drawstring Bags and Patterned Flannel and Button Paste Techniques. (Source: Widyastuti, 2022)



Image 5 Extension Activities Involving Participatory Design at PAUD HI BKB Kemas Kutilang Utilizing Flannel Fabric Woven Into a Plastic Fan Frame. (Source: Widyastuti, 2023)

CONCLUSION

PAUD HI BKB Kemas Kutilang in Kadugene Village, has the problem of not utilizing the potential of the village's product resources, which is the main point in the participatory design approach. One of the stages of the participatory design approach is the planning and relationship stage which is well planned so that it can be applied to build relationships with activity partners. With the hope that in the future many similar activities can be carried out in the following year centered on fabric utilization. In the design stage, the products produced in the following year have unity and continuity of material in order to improve the creativity process of PAUD HI BKB Kemas Kutilang students. The results of the monitoring and evaluation stages, activities for two years resulted in sustainable collaboration between the team and partners by utilizing calico and flannel fabrics that are safe and comfortable for PAUD HI BKB Kemas Kutilang students. The hope of further activities can develop innovative products utilizing fabrics as product resources in Kadugene Village. Finally, research based on community service activities involving PAUD can be carried out with a participatory design approach, by involving the participation of PAUD students and teachers this becomes the basis for designing products that can solve partner problems through collaboration between the team and partners.

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