Designing Creative Learning Media About Processing of Used Milk Boxes into DIY Art and Craft

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ABSTRACT
Waste materials are things in the environment that can be used or returned into something good and useful. One of the results of used good processing is a work of art, which can be made DIY by all people, both adults and children. Creating or customize DIY art and crafts can be an opportunity and the beginning step for children, particularly teenage children, to develop creativity. Children’s creativity needs to be developed in early age, so that one day they have special skills that will be useful in the future. Seeing their ambitions, children can learn anything autodidactically, because there’s social media that support their activity in finding education and entertainment. Instagram and YouTube can become a learning media that will be used to get public support for a creative movement as example. From Instagram and YouTube, teenagers can get many tutorials for them to follow, so they can understand step by step and practice. On Instagram, teenagers will get basic materials up to the steps of making, reviews from random people about the art works that has been made. Also, Instagram will be the media that share events, challenge, giveaway, etc. which is also good for get public attention. And about YouTube, YouTube will become a back-up platform if the education content duration is too long. It will be great for teenagers as the study’s subject if Instagram and YouTube merge as creative learning media that can bring out creative young generations, that can create what they want, and become whom they want in their future.

Keywords: Children, creativity, learning media.

INTRODUCTION
Waste or recycled materials are used goods in the surrounding environment that can be reused as basic materials in arts and crafts activities (Hamidah & Aprilia, 2016). Waste materials are classified into 2 types, namely organic and inorganic. Organic is a waste material that can be decomposed naturally without human intervention, and inorganic is a material that is difficult to decompose by soil, so it requires human intervention or technology for its processing. It takes 60 to 70 years for inorganic waste materials to completely decompose (Hariyanto, 2014). Examples that are classified as residual materials are household waste, waste that is not used, whether it is kitchen cooking waste, fallen and dry leaves, stacked paper that can be recycled, and cardboard/milk boxes which are the highlights of this study.

From the many used materials, milk boxes are waste that is quite wasted, even though if used it can be processed into useful products. The milk box is a product packaging made from Coated Unbleached Kraft Paperboard (CUK) with Polyethylene (PE) as one of its important elements. The shape of Polyethylene is like thin cardboard, but its properties resemble wax that is applied to the paper to make it water resistant (Taylor, 2020). The characteristics or characteristics of polyethylene are elastic/flexible, impact resistant, slightly opaque and transparent, impermeable to liquids, clean, odorless and hygienic (Panca Budi, 2017).

The milk box in the manufacturing process goes through two steps, at two different locations. At the carton mill, the manufacturer cuts and prints cartons that are delivered “knocked down” to the milk packers, then the packers complete the process by shaping, filling, and sealing the cartons. Milk boxes made of polyethylene with their properties and characteristics make milk boxes have the potential to be created into masterpieces. Various works that can be produced from milk box waste include bags, flower vases, multipurpose containers, toys, wall decorations, and so on.

To process milk boxes as one of the used materials, of course, creativity is needed. Creativity is an ability to find new things that are more creative and innovative and are packaged in an interesting way (Wulandari, 2020). Meanwhile, according to Husna (2019), creativity is a natural thing that is innate from birth as well as the ability to produce original, unusual and very
flexible thoughts in responding and developing thoughts and activities. Furthermore, according to Mulyati and Sukmawijaya (2013), creativity is an important thing in children's lives, which can make children more productive from an early age, and creativity can improve the quality of life and can make it easier to find a way out of a problem.

Children's creativity needs to be developed from an early age so that they have special skills. Not forever they will continue to depend on others help and care. For the development of creativity, educational media are needed, for example creative learning that leads them to think actively, dare to explore and experiment and use their imagination as the initial stage of honing their mindset (Patmonodewo, 2003). From creative learning, they will be invited to create a work using used goods, one of which is a milk box. To motivate children to want to work, of course, careful preparation is needed, for example in terms of material, as well as teaching media. Creative learning media is one strategy to invite them to hone their creativity from an early age, by utilizing several techniques and additional materials to process milk boxes into works in this design.

The processing of milk boxes into a work will be carried out in orphanages. An orphanage is an institution that accepts and accommodates both underprivileged children and their parents so that they can continue their lives. Orphanages are formed to improve the welfare of neglected children by providing guidance and alleviation, as well as services as a substitute for parents/guardians of children in meeting their foster care needs so that they can get a broad, proper, and proper education, and adequate opportunities to develop themselves into better persons. As the next generation of the nation's ideals, they are trained to be able to play an active role in the field of national development (Depdos RI, 2004). Then, according to UUD No. 20 of 2003 concerning the National Education System, Article 3 in Chapter II which explains the Basics, Functions and Objectives of National Education, children in orphanages have the same rights as children in general, even though their lives are very dependent on donations, such as funds and used goods. However, it is possible that the orphanage children can still be creative even in the midst of limited funds, facilities, and so on. The creativity they develop from an early age can be a very good investment for their bright future, just like children in general.

Therefore, this research focuses on how to design creative learning media that will be followed by children aged 12-18, with the hope that those who are the older siblings in the orphanage can also motivate their younger siblings to develop their creativity and potential by learning to work from a young age. early.

Realizing the many potentials of creativity can indirectly be a place for them to make an impact from a young age. This creative learning process is certainly supported by the characteristics of children who mostly want to stand out, want to develop their own identity, easily adapt to new people (in this case, the event organizers themselves), ambitious/willing to develop competencies while looking for ways to get them, and are committed on the intended purpose. Children aged 12-18 years are also much better at understanding and proficient in using scissors and other equipment, so that the learning process and the execution process will be safer.

An effective and efficient creative learning media can be done on site, and online using social media. Regarding social media and its advantages, social media has become part of human life for represent themselves or something and interact. Social media also helps users to collaborate, share, communicate with other users, and form a virtual social bond. The values that exist in society and the community also appear in the same or different forms on the internet. According to Nasrullah (2016), basically, whatever happens on internet or social media, it’s accurate to what happens in the real world too, for example tips/how to make something presented on social media such as Instagram and YouTube, will be no different. when they are put into practice on the spot.

METHOD

Required Data

This design uses a qualitative approach where the method research methods will be carried out namely data collection and analysis. Data collection methods are carried out by:

1. Primary data
   The data needed is data obtained from interviews and observations with several children at Yestoya orphanage regarding their daily activities, their characteristics, followed by finding out the views of the caretaker towards the plan holding this creative learning media.

2. Secondary Data
   Secondary data is obtained from online articles, journals, books, and others that discuss about the importance of creativity and the potential of used goods that can be processed into a work.

Data Collection Method

1. Interview
   According to Lexy J. Moleong (2018), an interview is a face-to-face conversation with the intention of certain. Interviews were conducted by the author on
the caretaker of the orphanage regarding children's daily lives and their opinion on the creative learning media to develop children's creativity by utilizing used milk boxes. This is accompanied by interviews with several Yestoya orphanage children as the research target audience to find out and explore their interest, so that in the future they can design creative learning activities that are interesting for them, and they can comfortable too in following the process from start to finish.

2. Observation
Observation is a way to collect data by direct observation and records that done systematically on the object to be learnt. Observations were carried out by researchers with how to observe and record the technical steps of creative learning that will be more effective and have an impact on the development of children's creativity.

3. Libraries
Literature is in the form of data collection through articles, journals on the internet and blogspot with the aim of deepening the issues raised before committing design, to simplifying the execution process.

4. Experiment
Experiment is one of the research methods used to determine the effect of independent variable (treatment/treatment) to the dependent variable (outcome) under conditions uncontrollable. In this case, it is necessary to test the characteristics, safety, and how to process used milk boxes as something that will be created into a work of art. The goal is that there is a clear knowledge base before being taught to the children of the Yestoya orphanage. Supporting experiments also include additional tools and materials that make a work of art such as: glue, scissors, and so on.

Data Analysis Method
This design is categorized as qualitative through collecting data from various kinds of sources such as journals, websites/blogspot, as well as observations and interviews in the field can be concluded in the form of 5W+1H that concerning about:

- Point of View Regarding Selection of Milk Box as Object
- Characteristics of Children aged 12-18 Years Old
- The Effectiveness of Holding Creative Learning for Children aged 12-18 Years

**FINDING AND DISCUSSION**

**Milk Box as One of the Supporting Creative Materials**

Waste material or used material is an object that can be recycled, processed, and used reused. Milk box is one of waste material product that made from Coated Unbleached Kraft Paperboard (CUK) with Polyethylene (PE) as one of the important elements with water resistant characteristics (Taylor, 2020). Other characteristics or characteristics of polyethylene, namely: elastic/flexible, impact resistance, slightly opaque and transparent, impermeable to liquid, clean, odorless, and hygienic (Panca Budi, 2017).

Author uses a milk box as part of the design project because:

1. The milk box is easy to cut. According to Iriani (2013), cutting is an activity using a tool in the form of scissors, and do some cut already introduced since early childhood, which is about 4 years. Cutting is one of the activities or cutting activities that involve and require eye, hand coordination and concentration.

2. The characteristics of milk box itself require creative thinking, for example by combining other creative tools and equipment such as brushes, pencils, paper, scissors, and others. By using creative media in this way, children can carry out activities that can train hand muscles and coordination eyes, mind with hands (Iriani, 2013). This accustoms children to be more flexible, not stiff, or not easily tired, and looser if one day they will work again.

3. As stated on Netpak (n.d.), Coated Unbleached Kraft Paperboard (CUK) out of the box Milk is a type of superior grade cardboard produced from 80% unbleached real wood pulp. CUK paperboard is thinly coated with kaolin which serves to increase the printing surface and thinly coated with polyethene (PE) for added strength in wet conditions which is often used for food or beverage packaging, so that in the process of the making of the milk box is not easily damaged, even though the creases remain visible.

4. The manufacturing technique is easy and varied, one of which is using the cut-paste which is divided into several different styles/characters: (Beetleston, 2010).
a. A collage is a work of sticky art whose composition consists of various materials affixed to a pattern surface. The materials used are of various types of materials from nature, such as stones, leaves, twigs, cherries, seeds, shells or the like or processed materials such as plastic, flannel, rubber, logan or others.

b. A montage is a work of sticky art that combines finished pictures of various sources in the form of used newspapers, used magazines, books that are not used, pamphlets or other forms of new artwork.

c. Mosaic is a piece of sticky art that combines pieces of material that are arranged together form a visual design as desired.

Pieces of material can be chips paper, eggshell chip, ceramic chip, glass chip, leaf chip, chip stone, wood chips or other pieces. In paintings, mosaics are similar with cubism paintings or stained-glass paintings with many kinds of art accessories.

**Definition of Creative Learning**

Learning is the basic word of learning. According to Lindgren (1969), learning is a process relatively permanent change in behavior and the change is caused by an individual's interaction with environment. Learning is also a process of developing knowledge, skills, or attitudes as an interaction with information and the environment, so the learning process needs to choose, organize, communicate information in an appropriate environment. Gredler also emphasizes the very strong influence of the environment in the learning process. Studies Learning is not just an academic exercise, it is an important aspect for both individuals and society. Learning is also the basis for the future development of society.

Learning is activities carried out intentionally or unintentionally by each individual, so that change from not knowing to knowing, from unable to walk to being able to walk, no can read to be able to read and so on. Learning is a process of individual change interact with the surrounding environment in a good or bad direction. The notion of learning cannot be separated from the notion of learning, both are a series of inseparable activities. Learning outcomes become a model or basis for the process further learning. Learning refers to learning activities carried out by those who learning and teaching, such as teachers, mentors, mentors, and others. The learning process becomes a learning system.

A learning system consists of several interrelated components interact until an effective interaction is obtained. The word learning is of course closely related to strategy. Strategy is a common pattern a series of activities that must be carried out to achieve certain goals (Sanjaya, 2008, p. 99). It says general pattern, because a strategy essentially does not lead to things that are practical, still in the form of a plan or overall picture. Meanwhile, to achieve the goals, strategies are prepared for a specific purpose. For example, if someone want to instill creativity among children, then creative learning is needed which in practice will be different from ordinary learning, by set the creative learning with more practical way, minimal in theory, and relaxed. Creative learning is a form of learning, as well as a vital part of learning cognitive development, which helps explain and interpret abstract concepts involving skill and curiosity. This form of learning relies on creativity, which is the ability to discover, explore, seek certainty and enthusiasm, which they are all very great qualities that a person has.

**Definition of Social Media**

The presence of the social media nowadays has become a part of human life with modern features that are useful. Social media is a medium on the internet that allows users to represent themselves and their interact, cooperate, share, communicate with other users, and form virtual social bonds. Social media is a digital medium where social reality occurs, and the space-time of users interact. Values that exist in society and the community can also emerge in the same or different forms on the internet. Basically, some experts researching the internet see that social media on the internet is a picture of what happens in the real world (Nasrullah, 2016).

There are definitions of social media according to various sources and research literature (Fuchs, 2014 as cited in Nasrullah, 2016):

1. Social media is a medium that facilitates cooperation between user and their generated content (Mandibergh, 2012).
2. Social media is a collection of software that enables individuals and communities to gather, share, communicate and collaborate, play or even work (Boyd & Ellison, 2008).
3. According to Van Dijck and Poell (2013), social media is a platform that focuses on existence of users who facilitate them in their activities and collaboration, that can strengthen relationships between users as well as a social bond.

**Functions of Social Media That Can Help Creative Learning Activities**

Functions of social media to Help Creative Learning social media is one example of an online-based media by having many users spread all over the world. Social
media is generally used to share and participate. Not infrequently, social media is also used as a means to perform social interactions. This is due to the ease of accessing social media that can done anytime and anywhere. In addition to the above statement, here are some functions other of social media (Tenia, 2017):

1. Search for news, information and knowledge social media contains millions of news, information and knowledge to the latest news which actually spreads these things more quickly to people audience through social media than other media such as television.

2. Get entertainment
   A person's condition or a person's feelings are not always in a good, cheerful, happy state without any problems, everyone would feel sad, stressed, and bored with something. One thing that can be done to reduce all these negative feelings is to seek entertainment by playing social media.

3. Online communication
   Easy access to social media is used by its users to be able to communicate online, such as chatting, sharing status, informing news to spreading invitation. Even for users who are used to it, online communication is considered more effective and efficient.

4. Mobilizing the community
   The existence of complex problems such as in terms of politics, government to ethnicity, religion, race, and culture (SARA), able to invite many responses from the audience. One of the efforts to responding to these problems is to provide criticism, suggestions, criticism to defense through social media.

5. Sharing tools
   Social media is often used to share useful information for many people. By sharing information, there is hope so audiences will know about that information, both on a national scale and international scale.

**Instagram as One of the Social Media**

Instagram is one form of the result of the advancement of the internet and is classified as one of the social media is quite loved by today's audience. This can be proven by increasing number of Instagram users every year. As of last April 2017, Instagram reached the range of 800 million users more than the previous year (Hartawan, 2017).

Unlike other social media, Instagram focuses on posting photos and videos from users. The uniqueness that makes this Instagram different from social media in general. Moreover, Instagram often updates its system. Since its appearance on 2010, Instagram often updated existing features so that the features were more complete and more interesting. Here are the features that are on Instagram at the moment:

1. **Followings and Followers**
   The concept of Instagram is for us to become a follower of other user accounts, as well instead by having Instagram followers. Thus, communication between fellow users Instagram itself can be linked by giving likes and comments on photos or videos that have been uploaded by other users. To find friends on Instagram, you can also use links associated with other example of social media platform for example Facebook and Twitter.

2. **Uploading Posts**
   The main use of Instagram is as a place to upload and share photos or videos to other users. On Instagram, users can only share a maximum of 10 photo files or photos videos in one upload. For own videos, videos can only be uploaded with a time limit 1 minute max. Before uploading photos or videos, users can also enter a title or a description of the photo according to what is in the minds of the users. Users can also put a label on the title of the photo, as a sign to group photo is in a category.

3. **Camera**
   Photos that have been taken through the Instagram application can be saved. Use of the camera via Instagram can also directly use the existing effects, to adjust the coloring of the photo desired by the user.

4. **Effects (Filters)**
   In its initial version, Instagram has effects that users can use at any time they want to edit a photo. In the application of effects, users can also simultaneously photo editing such as adjusting brightness, contrast, color, etc.

5. **Hashtags**
   A label in Instagram is a code that makes it easier for users to search the photo using keywords. Hashtag itself can be used in any form of communication concerned with the photograph instead. Users can enter your own name, the place where you took the photo, to report an event, to indicate that the photo is taking part in a competition, or to indicate that those photos are generated by members of a community.

6. **Geotagging**
   After entering the title of the photo, the next section is the Geotag section. This feature supported by GPS technology, so Instagram can detect the location where the Instagram users are located. By geotagging users can detect where the photo has been taken or where the photo has been uploaded.

7. **Social networks**
   In sharing these photos, users can also not only share them on Instagram only, but the photo can...
also be shared through other social networks such as Facebook and Twitter or other platform by linking Instagram account links with other social media accounts.

8. Likes
   Instagram also has a like feature which functions the same as other social media platform.

9. Instastory
   Instastory (Instagram stories) is one of Instagram's features which allows users to share photos or videos that will be deleted automatically within 24 hours thereafter. In the Instastory, there are also effects filter that can be used to entertain the users.

10. Photo Archive
    This feature works as a private medium or like a private album. So, users can share photos or videos that only that user can see.

11. Closefriend
    In this feature, users can share photos or videos that can only be accessed by other users who have been selected as “CloseFriend”.

12. Live broadcast
    This feature allows users in an account to broadcast live videos indefinitely which will be enjoyed by his followers.

13. IGTV
    This feature allows users to upload videos longer than 1 minute, but not saved in the Upload profile feed. Based on the features above, Instagram can also be used as a website replacement of photo and video albums. Every post on Instagram has no time limit, so we can’t see photos or videos that have been posted before even though it's already done in a fairly long period of time.

### Youtube Also the Next Level Social Media

YouTube media is a video sharing service provided by Google for users to load, watch and share video clips for free. YouTube is a form from the shift in internet technology (world wide web) from "read only web" to "read write web", namely from a state when the internet only provides reading resources for its users to a state when the internet provides a means for users to create and share reading resources for students and other users. This shift has made YouTube one of the most practical and effective social media easily accessible, so that currently YouTube is the most popular site and is watched by thousands of people every day.

About 20 million viewers visit YouTube every month with an age range of 12 - 17 years. In Indonesia itself, social media users are very large, ranging from media applications such as WhatsApp, Facebook, Instagram and so on to video-based media such as YouTube, in a survey in 2019 and presented in an infographic taken from the web.

### Number of Social Media Users in Indonesia

The infographic above describes the development of social media users. Total users reach 150 million users, this means most of the internet use is for socializing through social media. The number of social media users reaches 56% of the total population Indonesia, with its mobile-based users reaching 130 million. No wonder all platforms social media finally focuses on optimizing its applications on mobile.

### Frequently Visited Social Media Intensity Level Chart

The graphic data above reveals that YouTube is a social media frequently visited by Indonesian citizens. YouTube is accessed by all people, from children, teenagers, adults to even the elderly, from playing music to viewing video tutorials, reviews and so on. There is also a very popular social network until now which has become a successful audiovisual content website as a medium for disseminating information on the internet. Internet users must have used YouTube, both for entertainment media and to find various information and video tutorials. The success of YouTube in the internet world has also spurred many companies to create special channels on YouTube.

### The Importance of Creativity for Children and Creative Learning Media Itself

Humans are naturally creative creatures. The need to create something exists because of a fundamental drive in humans (Gurten, 1998). There are many things that humans can do with their minds and minds. Sir William Bragg said: "The important thing in science is not to acquire new facts but to discover new ones by creative thinking."
Creativity and innovation concern the process of creating and applying new knowledge. Creativity is needed at every level and every dimension of life, and creativity is not limited to the grand scheme of things, making it possible for someone to create new products or new services and good new processes.

Today, creativity and innovation are often confused with people, even though they are quite different. Creativity is about the generation of ideas, and innovation is about putting them into action. Children as humans who at their age are easy to learn things and like to imitate, must be able to distinguish these two things from an early age, so that they can see opportunities in various sectors of their lives, and hone their potential.

CONCLUSION

Waste material or used material is an object that can be recycled, processed, and reused. Based on the results of the study, it can be concluded that waste materials combined with creative learning methods can develop teenage children creativity, specifically the children at the Yestoya Orphanage as the main target audience for this project. To design an effective creative learning, author need to learn many things related to creative learning media itself. In building a good constructive relationship with the entire contents of the orphanage or children from different background, it needs exercises and experiments for delivering material and designing effective learning platform, as example through social media (Instagram and Youtube). Not only teaching or educating, but author can also increase children’s motivation by realizing that they have some opportunities as children in general too. They should not be afraid to explore their potential while there is an opportunity because they will hold their own future soon. With good education, they can create things/stuffs by their own creativity and efforts.

REFERENCES


