Creative process of elementary school teacher education students in making Ecoprint: Aesthetic habitus studies

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Abstract: The purpose of writing this article is to describe the creative process of making an ecoprint by students. The background of the writing is that there is a relationship between students' creative process in making patterns with aesthetic habitus in the eco print stages. The method used is qualitative with a narrative approach. The subjects studied were even semester students for the 2021/2022 academic year, while the object of study was making an ecoprint in groups. Data collection techniques were carried out using observation and document review. The data analysis selected is narrative techniques. The study results show that steamed ecoprint works are carried out through a creative process involving habitus to achieve the work's aesthetics. The achievement of aesthetic habitus in the creative process is supported by five stages, namely: (1) the stage of understanding or problem formulation; (2) the preparation stage; (3) the incubation stage; the (4) stage of illumination; (5) verification stage. The essence of habitus is the condition of any objectification and perception described in the actions taken by PGSD UAD students who apply to learn behavior with nature and identify natural materials in ecoprint techniques and with assistance from supporting lecturers and art practitioners.

Keywords: Creative process, Ecoprint, Aesthetic habitus


Introduction

Indonesia has a wealth of art and culture in abundance on every island. Art is part of a cultural activity that focuses on objects or objects that have aesthetic value. Culture consists of two types, namely, material culture and intangible culture. Culture is divided into seven elements, language, knowledge system, social organization, living equipment system and technology, livelihood system, religious system, and art. Based on these seven elements, it can be classified into three forms of culture, namely the form of culture as a complex of ideas, values, norms, rules, and so on; the form of culture as a complex of patterned activities and actions of humans in society; and the form of culture as objects made by humans. This confirms that art is an essential aspect of human civilization. Cultural elements are part of a culture that can be used as an analysis. Fine art is a branch of art that produces works whose
form and quality can be felt by the senses of sight and touch, besides that society can enjoy them because they have natural and visible forms. (Suwarno, 2018, pp. 194-203).

Fine art consists of pure art and applied art. Pure art is an art that prioritizes aesthetics, including painting, graphic arts, and sculpture. At the same time, applied art is an art that pays attention to aspects of beauty and function, such as wood crafts, ceramic crafts, metal crafts, and textile crafts (Kartika, 2017). Fine art is a form of human work which is accepted by the sense of sight, and broadly divided into pure art and applied art (Indriyanti, 2021). One of the parts of fine art is visual arts which are the materials given in elementary school education units on the subject of "Seni, Budaya, dan Prakarya (SBdP)". Visual art and design are the same things, both are forms of aesthetic expression with visual media (points, lines, shapes, colors, textures, volumes, and spaces). In the context of aligning the terms art and design, the term "fine art" is interpreted as pure art, while the term "design" is associated with applied art. Visual art is an expression of mere aesthetic considerations (Salam, 2020, pp. 8-10). SBdP subject matter, especially in fine art, can provide direct experience of art practice by students; for example, it is done independently or in groups accompanied by a teacher.

Art learning in the form of fun creative activities also functioned to provide the basics of educational experiences such as 1) helping children's growth and development, 2) fostering aesthetic development, 3) developing talents, and 4) helping perfect life (Tatu Rohamah, 2021, pp. 3497-3507). Art education is a relatively new term used in the world of schooling. At first, the term drawing was used, then the term teaching drawing lasted for quite a long time until it was replaced with the term art education. The subject matter provided is drawing and various other art fields, such as sculpting, printing, pasting, and art appreciation. The purpose of teaching drawing in elementary schools is to make children bright in drawing through eye-hand coordination exercises (Dayanti, 2021, pp. 704-711). For elementary schools students, the art aesthetic is the bond that gives each area of the curriculum its common purpose, explicating that visual art is an exceptionally supportive context that can be associated with interactivity to a) sensory anchoring, b) instant access, c) personal engagement, d) dispositional atmosphere, e) wide-spectrum cognition (visual processing, analytical thinking, posing questions, testing hypotheses, verbal reasoning, and more) (Stavridi, 2015, pp. 2274-2282). Art learning materials are not only in the form of pictures but also types of textile crafts are given to PGSD students at Ahmad Dahlan University to equip them with expertise and skills. One type of textile craft that is practiced is ecoprint. For elementary school students, ecoprint is an alternative way of learning through art media that not only practices how to make it but also as a form of introduction to materials from nature such as leaves, flowers, roots, and bark which are suitable for making ecoprint works.

Craft art has been found since prehistoric times. At that time, craft objects were made of clay, stone, and metal with various functions. At that time, the art of craft was made simple and emphasized functional aspects. Craft art is not a work created with diligent intensity alone, but it contains the value of creativity and aesthetics and the quality of expertise (skills) tall one. Textile craft can be understood as a craft art that, in its manufacture, uses textile media. In textile craft, the same as other craft works, in its manufacture, it still focuses on function but cannot be separated from its aesthetic value as a work of craft art. Textile crafts can be found in everyday life in "batik" and woven fabrics (Bayu Prayogi, 2019, pp. 1-11). Based on some understanding of the textile craft, ecoprint is included in the textile craft group, which has the technique of hitting and steaming to produce products that can be used in human life.
The ecoprint technique is the process of transferring colors and shapes onto fabrics through direct contact. Ecoprint brings out its characteristics, which are contained in terms of motifs and coloring techniques. The motifs are created from natural materials. These materials produce shapes and textures similar to the original, and the colors are made from raw materials. This technique is a coloring that is unique and easy to work with, as well as environmentally friendly with its natural and soft color properties. The ecoprint technique means printing with raw materials on a specific media. The media usually used are cloth and paper fibers. Making ecoprint begins with mordanting, soaking the fabric in alum water for one hour. This method is used to maintain the basic color of the fabric and to open the pores of the fabric so that the image can be printed. After the fabric dries, the motif printing process can be carried out (Annesha, 2020, pp. 3957-3976). Motif results from the ecoprint technique seem natural and not visually perfect but can create a beautiful aesthetic value and seem superficial.

Further, understanding of the ecoprint technique, namely: 1) one way to process white cloth by utilizing various plants that can produce natural colors; (2) the activity of moving the pattern (shape) of leaves and flowers onto the surface of multiple fabrics that have been processed to remove the waxy layer and fine dirt on the material so that the plant color can easily absorb (mordant technique); (3) the ecoprint technique utilizes plant media (leaves and flowers) as the primary material for giving colors and motifs to fabrics; (4) ecoprint is a way to decorate cloth by utilizing various plants by utilizing their natural colors. Based on this description, it can be concluded that eco print is a technique of decorating cloth fabric by using natural dyes extracted directly from plants to form motifs or patterns to produce a beautiful work (Hartati, 2020, pp. 1143-1155). The raw materials used by PGSD students in making ecoprint technique textile crafts are leaves, twigs, and flowers. The dyes used are synthetic. The ecoprint technique used is the steaming technique, and the practice stages are almost similar to the boiled technique. The steps for the ecoprint practice using the boiling technique are as follows: (1) white cloth discouring and mordanting, 2) the cloth is stretched so that the position of the cloth is flat and horizontal, 3) plant material is attached to the cloth, 4) cloth that has been put plant parts then covered with plastic, 5) rolled up with a pipe tightly, 6) white cloth tied with thread or rope, and 7) steamed cloth for 1-2 hours, 8) cloth untied on the floor carefully using scissors, 9) cloth dried in the sun, 10) the dry cloth was fixed using a special liquid, 11) the fixed cloth was dried again to dry (Steffanie Nurliana, 2021). The steps for making the ecoprint textile craft using the steam technique were carried out sequentially by students. Each class is divided into several groups of 5 people per group. The fabric produced, of course, goes through the stages of the creative process because ecoprint material is part of learning fine arts.

Creativity is a coloring of the whole attitude to the external reality that the profound existential ground to creativity claiming that a creative apperception more than anything else makes the individual feel is worth living. Creativity is something universal, it belongs to the approach of the individual to external reality. Creativity also allows any individual to approach external reality in a personal way and playful manner. Art brings the child to an intermediate area of experiencing, to which inner reality and external both contribute (Savoie, 2015, pp. 1-14). Another opinion about creativity is that artistic creativity entails essentially ill-defined problem-solving activities in which the operators are not well known, and the outcomes or goals cannot be well predicted in advance (Yokochi, 2019, pp. 3172-3178). Furthermore, there are five stages in the process, namely: (1) the stage of understanding or formulating the
problem that lays the foundation, studying the background of the problem, its intricacies, and the problems that can occur in hours, days, to years; (2) the preparation stage by developing problem-solving ideas; (3) the incubation stage is the process of taking a special time to find peace of mind to solve or solve certain problems through the liberation of thinking and work habits; (4) the illumination/illumination stage is the process of getting ideas, ideas, solutions, solutions, ways of working, consciously new answers and clarity of relationships between problems that can be described and explanations appear for solving the problem; (5) the verification stage is the final period that is carried out consciously where the framework of ideas is tested and developed, ensures that the solution solves the problem, and makes or realizes it into work (Tomihendra Saputra, 2020). Creativity in the world of education has certain indicators to measure, including generating ideas, questions, answers, and solving problems that vary spontaneously, being free to express opinions, experiment and imagine, creating unique expressions, ideas, or ideas, making observations of the surrounding environment, have a great curiosity so that they can see problems from various perspectives, create varied works or products, gain new experiences, and have a sense of beauty to be able to produce interesting ideas (Utami, 2022). Based on this explanation, it can be concluded that a person's creativity is influenced by personal feelings obtained from pleasant principles and steps in life. The creative process of PGSD students goes through the stages of making ecoprint textile crafts using steaming techniques that lead them to experience the struggles of their inner and external realities that contribute to each other. The creative process also requires problem-solving to produce aesthetic objects through these five stages. The inner and external reality of the self is shown by the repeated refraction of beauty (aesthetic habitus) during the practice of making works of art.

Habitus is a term referring to a set of unconscious practices conditioned by the social, cultural, and political context that permeates their users (obviously also determined by the strategic prescriptions and the technological characteristics of the media). The heuristic value of Pierre Bourdieu's concept of "habitus" lies in the fact that it helps consider online activity beyond its dimension. Bourdieu defines the "habitus" as "incorporated history", "reactivation of the meaning objectified by the institutions", "standardization of the experience", "common code", or ultimately "subjective but not individual system of internalized structures, common patterns of perception, conception, and action, which are the condition of any objectification and any perception. This approach emphasizes the habitus as a set of relatively homogeneous practices and shared meanings within a group. It does not advocate the acceptance of an absolute determinism that leaves no margin for individual creativity; these margins prove, however, limited, often predictable by the habitus itself. "Like any art of inventing, the latter can produce an infinite number of practices, relatively predictable (like their corresponding situations), but limited in their diversity (Koukoutsaki-Monnier, 2018). The creative process wrapped in habitus is expected to produce artistic works of aesthetic value, meaning that the ultimate goal is to prioritize the aesthetic side.

The term "aesthetics" has a close relationship with the word "art" some experts categorize the two as having the exact definition, but not a few say that aesthetics is a form of beauty that is different from the term art. Aesthetics is often associated with something that smells of art because it contains beauty that can be seen. Aesthetics has always been used to express the philosophical language of works of art since its emergence. However, in reality, art is not only seen as something beautiful, so there must be a field that is used to answer the true nature of art, namely the philosophy of art. The word "aesthetics" comes from the Latin
"aestheticus" or the Greek "aestheticos" which comes from the term "aishte" which means to feel. Aesthetics can be defined as the arrangement of parts of something that contain a pattern to unite the features that make it up and the harmony of its elements, giving rise to beauty. From this, it can be interpreted that aesthetics concerns one's feelings, and this feeling is devoted to beautiful feelings. The beautiful value means not only defines the form but can also involve the beauty of the content or meaning (Hasnidar, 2019). Based on the explanation above, aesthetic habitus can be said to be an artistic activity framed in a homogeneous practice and interpreted together in a group that aims to achieve the beauty value of the content or meaning of a work of art through the harmony of its elements. Textile works of ecoprint technique produced by PGSD students are made by fulfilling the stages of the steaming process to achieve the beauty value obtained from natural materials. Practical activities carried out in groups consist of individuals with a cooperative pattern but are divided into each stage.

**Methods**

Qualitative research is applied to natural background or in the context of a need (entity) because natural ontology calls for the facts as a whole that can't be understood if separated from its context (Moleong, 2018, p. 8), explained that qualitative research uses interviews, observations, and document review methods. This research has several considerations, namely the adjustment is easier if faced with plural facts; presents the nature of the relationship between researchers and respondents directly; qualitative methods are more sensitive and more adaptable to the many sharpening of the mutual influence on the patterns of values encountered. Interviews are one of the most widely used research data collection tools that enable researchers to collect data from respondents in a variety of situations and contexts (Sarosa, 2017, p. 47). The object being studied is the creative process of making a steaming technique ecoprint, while the subject of the study is PGSD UAD students who take the Fine Arts and Skills Education course.

The approach chosen to analyze is It is an approach that emphasizes chronological studies of individual life. So, if a researcher wants to explore the dynamics of life, a person or individuals can use a narrative approach in qualitative methods (Kaharuddin, 2021, pp. 1-8). Narrative research is one form and type of qualitative research which focuses on the experience individual and rewrites it in the form of narrative chronology. Theoretically, education policy research is part of public policy studies in education, which regulates related regulations. Data collection was carried out with literature studies or library research conducted by collecting data, information from various kinds of policy data sources, online media such as public data, and trusted news media (Yanti, 2022, pp. 3237-3250). The narrative is a social science research method to help understand one's identity and worldview about the stories (narrations) that are heard/told. Could It is also said to be a critical investigation of events in the past and produce descriptions/narratives as well as precise, correct interpretations regarding events. Usually, the technique used is a heuristic, source criticism, interpretation, and historiography (Fadli, 2021, pp. 33-54).

The data analysis technique used is a narrative technique. Narrative techniques are writings that contain a series of events from time to time outlined in sequence starting from the beginning, middle, and end. Narration is a story that contains empirical material collected by researchers. The material in question is the result of interviews with participants or personal narratives. Some approaches to narrative data analysis techniques are as follows (1)
Reading or writing, from above or from below, realist, constructivist, critical, genre, sound, ante-narrative, deconstruction, grand-narrative, microstomia, story network, intextuality, causality, plot analysis, and theme analysis. Writing in the narrative analysis is a tool for organizing and presenting research data in a logical, structured, and systematic manner, while reading in the narrative analysis is interpreting the meaning of data in the form of a narrative (Sarosa, 2021, p. 93).

**Results and Discussion**

Making Ecoprint process consists of several stages. Table 1 describes each step. In the following discussion, the authors give perspective on the Ecoprint-making process concerning the creative process.

**Table 1. Analysis of Making Ecoprint by PGSD UAD’s Students**

<table>
<thead>
<tr>
<th>Number</th>
<th>Activity</th>
<th>Picture</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fabric ordering (“pemordanan”)</td>
<td><img src="source" alt="Fabric ordering" /></td>
<td>The process of mordanting or mordanting uses chemicals such as soda ash, alum, and TRO. Alum is used to strengthen when dyeing fabrics and increase fire resistance. TRO functions as a wetting agent that facilitates the absorption of dyes on materials. In addition, the “mordan” process removes components in the fabric fibers, such as oil, grease, wax, and other impurities, and reduces the potential for fading.</td>
</tr>
<tr>
<td>2</td>
<td>Highly soaked fabric (eg: brown color)</td>
<td><img src="source" alt="Soaked fabric" /></td>
<td>Soaking is done for 15 minutes to get the primary color of the fabric so it is not plain white.</td>
</tr>
</tbody>
</table>


Source: author’s photo (2022)
<table>
<thead>
<tr>
<th>Number</th>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Leaves soaked in vinegar</td>
<td>The soaked leaves are sure to have good quality and can bring out their color. Not only leaves, but other natural materials can also be used such as twigs, branches, and flowers. Examples of leaves that can be used for ecoprinting techniques include teak, guava leaves, &quot;kersen&quot;, star fruit leaves, &quot;lanang&quot; leaves, &quot;jarak&quot; leaves, ink/ &quot;mangsi&quot;, kesumba, mulberry, leaf &quot;ungu&quot;, red longan, and others.</td>
</tr>
<tr>
<td>4</td>
<td>The cloth is dried and laid out on the floor</td>
<td>The cloth is dried and laid out on the floor.</td>
</tr>
<tr>
<td>Number</td>
<td>Activity</td>
<td>Picture Description</td>
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<tr>
<td>5</td>
<td>Leaf arrangement</td>
<td>a. Choose leaves soaked in vinegar to lay out on the cloth. Do not forget to cut the protruding leaf stems first interfering with the following process. The arrangement of the leaves is also the leaves open up, not the other way around.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Source: author’s photo (2022)</td>
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<tr>
<td></td>
<td></td>
<td>b. Arrange the leaves on the cloth according to the desired composition.</td>
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<tr>
<td></td>
<td></td>
<td>Source: author’s photo (2022)</td>
</tr>
<tr>
<td>6</td>
<td>Binding and winding of cloth</td>
<td>a. The cloth that has been arranged is then rolled slowly and carefully so that the position of the leaves does not change. At this stage, the winding is slightly pressed to compact.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Source: author’s photo (2022)</td>
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<tr>
<td></td>
<td></td>
<td>b. Binding of cloth with rope, the type of rope used is raffia. When rolling the fabric, it is ensured that the position is elongated and horizontal.</td>
</tr>
<tr>
<td>Number</td>
<td>Activity</td>
<td>Description</td>
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<tr>
<td>7</td>
<td>Fabric steaming</td>
<td>Steaming the fabric is done in a hot steamer or steamer for 2 hours to produce maximum color. Source: author’s photo (2022)</td>
</tr>
</tbody>
</table>
| 8      | Fabric lifting and opening              | a. After 2 hours, the cloth is removed from the pot or steamer, then the straps are cut using scissors on the floor horizontally.  
b. Then slowly unroll the cloth and lift the cloth cover.  
c. The result of the ecoprint technique is on the first cloth in the form of transferring the shape of natural materials that have been affixed to the second cloth.  
d. The cloth is hung to dry. Source: author’s photo (2022) |
| 9      | Fabric fixation                        | a. After drying to dry, the fabric is then fixed by adding materials containing metal complexes. There are three types of fixer solutions commonly used, namely “tunjung” which tends to darken the color, alum tends to lighten the color, and quicklime tends to lighten the color.  
b. The cloth that has been fixed is dried in the sun to dry, then made “wolsom” and ironed to make it neater. Source: author’s photo (2022) |
Based on Table 1, it can be studied the process of making ecoprint technique textile crafts by PGSD students according to the concept of a creative process which consists of five stages, namely:

1. **Understanding or problem formulation stage**: students conduct a literature study first through research journals on ecoprint techniques to obtain information about the stages, appropriate materials, and suitable types of fabrics. Students also explore alternative information on natural materials (leaves, stems, branches, twigs, and flowers) that are suitable for use. Then students make a list of equipment and materials that are discussed with the group to divide the members’ tasks.

2. **Preparation stage**: students prepare a practice room guided by lecturers and ecoprint experts and bring all the tools and materials that have been brought.

3. **Incubation stage**: students listen and follow each step, then discuss the pattern plan for ecoprint fabric. The pattern plan is done by repeatedly placing several natural until they find a suitable motif. At this stage, students are directed to use fine art’s essential elements and principles, color, composition, balance, proportion, and texture. This is because the arrangement of the dash position will affect the resulting motif and color transfer.

4. **Illumination/illumination stage**: after obtaining the proper arrangement of patterns, students then arrange them according to the results of their group discussions; if they want to make other motifs, the leaves that have been prepared are created again by cutting them according to the desired object. So, the embossed motifs are obtained from pure leaf shapes or those that have been cut into pieces.

5. **Verification stage**: the arrangement of leaves placed on a cloth and then covered with a second cloth so that color transfer can occur. The fabric is neatly rolled and tied tightly using raffia rope, then steamed for two hours. At this stage, the final result of steaming depends on the process from the beginning of students preparing for practice.

In terms of aesthetics, the work of PGSD UAD students is categorized as beautiful can be seen from the transfer of colors and shapes from natural materials that are visible and give a textured impression. The pigment from the leaves is visual right down to the fibers.

In addition, the essence of habitus is "incorporated history", "reactivation of the meaning objectified by the institutions", "standardization of the experience", "common code", or "ultimately subjective" but not an individual system of internalized structures, common patterns of perception, conception, and action, which are the condition of any objectification and any perception described in the actions taken by PGSD UAD students who apply learning behavior with nature and its surroundings by identifying natural materials that can be used in ecoprint techniques. Students have their standards in their groups regarding patterns or motifs resulting from the arrangement of leaves that give them empirical experience. The aesthetic visual subjectivity of each group was created from the results of shared thinking, discussion, and exploration of repeatedly compiling designs to determine ecoprint motifs. In other words, the general pattern of perception, conception, and action is a condition of objectification, and any perception of beauty resulting from the practice of ecoprinting becomes diverse. The habitus process within students as learners can be described in their creative process in making ecoprint technique textile crafts. Habitus of how they utilize natural materials as the main ingredient in coloring. As (Dewi, 2021), leaves are widely explored materials in the ecoprint techniques. Another effort is to explore other materials,
namely fruits and vegetables. Ecoprint can reduce waste in the world of textiles, considering that the waste produced in the world of fabrics is hazardous for the environment because many uses synthetic dyes and other chemicals that can damage the ecosystems around us. Based on this description, the aim of teaching ecoprint techniques is not only from a technical point of view but also for students’ understanding to remain environmentally friendly and utilize natural materials around them as motive ideas. Besides that, habitus provides adaptability for an agent to enter a new social situation such as a different field, based on the tacit knowledge coming from their previous experience (Alam, 2019). This explains that previous experience with social situations will affect creative power. Every process carried out by students is recorded in memory, referring to their visual memories of natural materials and adapting themselves to the current environment to explore what natural materials can be used to make patterns or motifs on textile crafts with ecoprint technique.

Conclusions

Steaming technique ecoprint works are carried out through a creative process involving habitus to achieve the work's aesthetics. The achievement of aesthetic habitus in the creative process is supported by five stages, namely: (1) the stage of understanding or problem formulation; (2) the preparation stage; (3) the incubation stage; (4) the stage of illumination; (5) verification stage.

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