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Teaching Materials and Methods for Aesthetic Education in Taiwanese Preschools: A Case Study of Leaf Rubbing Art

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ABSTRACT : This study explores the teaching materials and methods used in aesthetic education in Taiwanese preschools, with particular emphasis on leaf rubbing art. It examines how leaf rubbing can be incorporated into preschool teaching as an aesthetic learning experience and how children engage with natural materials through observation, exploration, artistic expression, and creative practice. The study further considers how teachers design and facilitate aesthetic learning experiences that connect children's everyday encounters with nature to artistic creation and aesthetic appreciation. Such an approach not only expands the possibilities of aesthetic curriculum design in Taiwanese preschools but also demonstrates how natural environments can function as meaningful pedagogical spaces for fostering young children's aesthetic sensibility, creativity, and holistic development.

KEYWORDS: early childhood education, teaching materials and methods for aesthetic education, young children.

1. INTRODUCTION: AESTHETIC EDUCATION IN EARLY CHILDHOOD

Leaf Rubbing as an Aesthetic Learning Experience

Aesthetic education is fundamental to young children's holistic development and lifelong learning. The cultivation of aesthetic sensibility has been increasingly emphasized in early childhood education across different countries and has become an important concern in contemporary educational practice in Taiwan. Aesthetic education is not limited to cultivating children's ability to appreciate works of art; rather, it involves engaging children in everyday life and environmental experiences through which they can perceive, explore, express, and create, thereby developing a heightened awareness of nature, everyday life, and artistic expression. Children's aesthetic experiences do not arise solely from formal art activities but are deeply embedded in their interactions with their surrounding environments, natural materials, interpersonal relationships, and cultural contexts. Accordingly, transforming children's familiar life experiences into meaningful aesthetic learning contexts represents an important issue in the design of aesthetic curricula in early childhood education (Dewey, 1934; Eisner, 2002; Ministry of Education, 2017; Shih, 2020). From a developmental perspective, young children demonstrate a high degree of sensory sensitivity and a strong inclination toward exploration. They construct understandings of the world around them through diverse forms of engagement, including observing, touching, manipulating, and moving objects. Children's artistic experiences are particularly dependent on sensory perception and hands-on interaction. Through direct engagement with materials, children can explore visual and tactile elements such as shape, color, line, texture, and spatial relationships and subsequently transform their individual feelings, experiences, and imaginations into artistic expressions. Natural materials found in the environment—including trees, flowers, stones, fruits, and fallen leaves—not only possess diverse forms, colors, lines, patterns, and textures but also provide children with direct and concrete sensory experiences. Compared with highly structured or commercially prepared art materials, natural materials are characterized by greater openness, variability, and unpredictability. Such characteristics enable children to discover the properties of materials through exploration and to transform these experiences into artistic expressions according to their own perceptions, imaginations, and prior experiences (Dewey, 1934; Edwards, 2014; Eisner, 2002; Ingram & Seashore, 2003). Among various natural materials, leaves are particularly suitable for aesthetic education in early childhood because they are readily accessible and exhibit considerable diversity in form, texture, color, and seasonal variation. Leaves from different species differ in size, shape, margins, venation, color, and surface texture, providing children with rich opportunities to observe, touch, compare, and explore their distinctive formal characteristics. Through the process of leaf rubbing, children can transfer naturally occurring leaf patterns and textures onto paper, thereby transforming elements originally embedded in the natural environment into visual artistic representations. This process creates a meaningful transition from natural observation to sensory exploration and, ultimately, to artistic expression. From Dewey's (1934) perspective, art is not a specialized activity detached from everyday life but an integrated

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form of experience emerging through continuous interaction between individuals and their environments. Accordingly, leaf rubbing should not be regarded merely as a technical art-making activity; rather, it can be understood as an aesthetic educational experience mediated by natural materials and integrating sensory awareness, aesthetic perception, creative exploration, and artistic expression (Dewey, 1934; Eisner, 2002). Through leaf rubbing, children are not simply reproducing the physical characteristics of leaves. Instead, they engage in a process of noticing, interpreting, experimenting, and transforming natural forms into artistic representations. The educational value of the activity therefore lies not only in the final artwork but also in the experiential process through which children develop aesthetic awareness and construct meaning through interaction with natural materials. From the perspective of early childhood curriculum, the natural environment itself constitutes an important educational resource. Through direct engagement with nature, children can develop sensory awareness, observational abilities, curiosity, and exploratory dispositions while gradually developing emotional connections with and caring attitudes toward the natural environment. Integrating natural materials such as leaves into aesthetic curricula can therefore enrich children's artistic learning experiences while simultaneously strengthening the connection between nature exploration and aesthetic education. Such curriculum design is also consistent with the aesthetic domain of Taiwan's *Early Childhood Education and Care Curriculum Framework*, which emphasizes guiding young children to perceive, explore, and express beauty through everyday environments and artistic activities. In this context, leaf rubbing can be conceptualized as more than a conventional art technique. It represents an experiential and nature-based approach to aesthetic education in which children encounter natural materials, engage their senses, explore formal and tactile qualities, and transform their perceptions and imaginations into artistic expressions. By connecting nature, everyday experience, sensory exploration, and creative expression, leaf rubbing provides a concrete pedagogical example of how aesthetic education can be embedded within young children's lived experiences. Such an approach not only expands the possibilities of aesthetic curriculum design in Taiwanese preschools but also demonstrates how natural environments can function as meaningful pedagogical spaces for fostering young children's aesthetic sensibility, creativity, and holistic development (Louv, 2008; Ministry of Education, 2017; Wilson, 1992).

2. TEACHING ACTIVITY DESIGN: LEAF RUBBING ART

2.1 Activity Title

Transforming Leaves: Let's See What Leaves Can Become!

2.2 Age Group: 4–6-year-old preschool children

2.3 Activity Format

☑ Group Activity

☑ Learning Area Activity

The activity "Transforming Leaves" is conducted as a group activity. The teacher first guides the children to observe spring leaves together and encourages them to discover their shapes, colors, and textures through discussion, touching, and comparison. The teacher then demonstrates the leaf-rubbing technique, after which children independently select leaves and art materials for their own creations. Finally, children share and appreciate one another's artworks and exchange their creative experiences.

Teaching Duration: 40 minutes

Time: 10:00–10:40

2.4 Activity Rationale

Using the spring season as a meaningful learning context, this activity guides children to observe and explore the shapes, colors, and textures of leaves in the natural environment. Through touching, comparing, and rubbing leaves, children are encouraged to discover the natural beauty embedded in leaf patterns and transform their perceptions and imaginations into individual artistic creations, experiencing how natural materials can be transformed into works of art.

2.5 Learning Objectives

In alignment with the Aesthetic Domain of Taiwan's Early Childhood Education and Care Curriculum Framework, the activity "Transforming Leaves" can be designed around the following learning objectives:

A-2-1: Use imagination to engage in personally unique artistic creation

Encourage children to observe the shapes and textures of leaves and use their personal experiences and imagination to freely select leaves, colors, and creative methods, transforming natural materials into artworks that reflect their individual ideas and characteristics.

A-2-2: Use various forms of artistic media to engage in creative expression

Guide children to use leaves, paint, paper, and other natural and artistic materials to engage in artistic creation through rubbing, arranging, combining, and other forms of expression, while exploring the beauty of shapes, colors, lines, and textures produced by different materials.

2.6 Learning Indicators

A-2-2-1 Explore and use the characteristics of various visual arts materials and tools in the process of artistic creation.

A-2-1-1 Explore various artistic media, exercise imagination, and enjoy the pleasure of self-expression.

2.7 Activity Content

2.7.1 Beginning Activity

2.7.1.1 Motivation and Introduction

Teacher: Do you know what leaf rubbing is?

Children: Yes! / No! It means putting a leaf under a piece of white paper and rubbing it with a crayon.

Teacher: Good! Today, we are going to have fun making **leaf-rubbing art**. Before we begin, we are going to read a picture book together. The title of the book is *A Day in the Forest*. Let's say the title together.

Children: *A Day in the Forest.*

Teacher: Great! Let's begin our story.

(The teacher reads the picture book.)

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After the story: The teacher presents a collection of leaves with different shapes, sizes, colors, and textures.
Teacher: Look, everyone! I have collected many different kinds of leaves. Now, I would like you to explore them with your senses. You can touch and smell the leaves. After you finish exploring, raise your hand and tell me what you noticed and how the leaves felt or smelled.
Children: "This leaf feels pointy." "This one feels round and smooth." It doesn't have much of a smell." This leaf smells nice."
2.7.1.2 Teaching Focus
Through the picture book and sensory exploration of leaves, children are encouraged to: Develop curiosity about nature and natural materials. Observe differences in the shape, texture, and smell of leaves. Express their sensory experiences through language. Build connections between nature, sensory perception, and artistic creation. Prepare for the subsequent leaf-rubbing activity.
2.7.1.3 Transition to the Main Activity
Teacher: We have discovered that leaves can look and feel very different. Do you think these leaves can also become part of a picture?
Children: Yes!
Teacher: Let's find out what beautiful patterns and pictures we can create with these leaves!

2.7.2 Development Activity

2.7.2.1 Demonstration and Creative Exploration Teacher: Now, I'm going to demonstrate how to make a leaf-rubbing artwork. First, choose the leaves you like. You will need two sheets of paper. Place one sheet of paper on the table and arrange the leaves on top of it. You can choose how you would like to arrange the leaves. Next, gently place the second sheet of paper over the leaves. Hold a colored pencil or crayon at a slight angle and gently rub across the paper. Let's see what patterns and textures appear! (The teacher demonstrates the leaf-rubbing technique.)
2.7.2.2 Children's Creative Activity Teacher: Now, I would like six children who would like to try leaf rubbing to come to the learning area and wait at the colored-pencil area. The other children may freely choose another learning area. (Children begin their creative activities.)
During the activity, the teacher observes children's exploration and provides appropriate guidance without requiring them to produce identical artworks. The teacher may ask: "What happens when you rub the paper gently?" "What kind of pattern can you see?" "What happens if you use a different leaf?" "What do you think this pattern looks like?" "What colors would you like to use?" "Can you create something new with your leaf patterns?"
2.7.2.3 Learning Focus
Through the leaf-rubbing process, children are encouraged to: Explore artistic media and tools by experiencing the characteristics of leaves, paper, colored pencils, and crayons. Develop sensory and aesthetic awareness by observing the lines, veins, shapes, and textures revealed through rubbing. Use imagination and creativity to transform natural patterns into individual artistic expressions. Make independent choices regarding leaves, colors, arrangements, and rubbing techniques. Experience the pleasure of artistic creation through hands-on exploration. This activity connects natural materials, sensory exploration, artistic media, imagination, and creative expression, corresponding closely to the learning indicators A-2-2-1 and A-2-1-1.

2.7.3 Concluding Activity

2.7.3.1. Artwork Sharing and Appreciation Teacher: Now, I would like to invite the children who participated in the leaf-rubbing activity to share their artworks with everyone. Would anyone like to come up and share?
Child: Me!
Teacher: Great! Please come up and share your artwork with us.
Teacher: Could you introduce your artwork to everyone?
Child: It is called "Rhinoceros Beetle."
Teacher: Why did you name it "Rhinoceros Beetle"?
Child: Because the leaf is round, and I think it looks like the rhinoceros beetle's belly.
Teacher: What a wonderful idea! You used the shape of the leaf and your imagination to create your own artwork. Thank you for sharing!
Children: (Applause.)
2.7.3.2. Extended Appreciation and Discussion
After the child's sharing, the teacher can invite other children to observe and respond to the artwork:
Teacher: What do you notice about the leaf in this artwork?
Child: It is round.
Teacher: What else does the leaf make you think of?
Child: It looks like a bug.
Teacher: Everyone may have a different idea when looking at the same leaf. What do you think your leaf could become?
Through sharing and discussion, children are encouraged to observe, describe, imagine, and appreciate different forms of artistic expression.
2.7.3.3. Learning Focus
This concluding activity allows children to:(1) Share their creative ideas and artistic experiences. (2) Use language to describe their artworks. (3) Explain the relationship between natural forms and their imagination. (4) Appreciate different interpretations of the same natural material. (5) Develop confidence in expressing their ideas. (5) Experience the joy of sharing and appreciating artistic creations. The activity therefore completes the learning process:
Observing nature → Exploring leaves → Creating through leaf rubbing → Using imagination → Expressing ideas → Sharing and appreciating.
This process demonstrates that the educational value of "Transforming Leaves" lies not only in producing an artwork but also in enabling children to transform their sensory experiences of nature into imaginative and meaningful artistic expressions.

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2.7.4 Formative Assessment

2.7.4.1. Assessment Indicators

Use the characteristics of leaves and coloring tools to engage in artistic creation. Observe whether children can use leaves of different shapes, sizes, and textures, together with colored pencils, crayons, and other coloring tools, to create leaf-rubbing artworks. Explore the characteristics of leaves, use imagination, and enjoy the process of creative self-expression. Observe whether children can actively explore the shapes, textures, and arrangements of leaves, use their imagination to transform leaves into personally meaningful artworks, and experience enjoyment and satisfaction throughout the creative process.

2.7.4.2 Assessment Methods

2.7.4.2.1 Children's artworks

Observe how children use the shapes, textures, colors, and arrangements of leaves in their artworks and whether their creations demonstrate individual creativity and unique forms of expression.

2.7.4.2.2 Children's verbal descriptions of their artworks

Through children's verbal sharing, the teacher can understand their creative ideas, imagination, choice of materials, and aesthetic experiences. For example: "My artwork is called *Rhinoceros Beetle* because this leaf is round, and I think it looks like the rhinoceros beetle's belly."

2.7.4.2.3 Teacher observation and documentation

During the creative process, the teacher observes whether children independently select materials, experiment with different rubbing techniques, explore the characteristics of leaves, and express their ideas in their own ways.

2.7.4.3 Core Assessment Principle

The formative assessment of this activity should focus primarily on children's creative processes rather than simply evaluating the aesthetic quality of the finished artworks. The key is to observe whether children can explore natural materials, use artistic media, exercise imagination, express their ideas, and enjoy the process of creative expression.

3. ACTIVITY RECORD

At the beginning of the activity, the teacher guided the children to share their understanding of and experiences with "rubbing" through questions. The children responded enthusiastically to the teacher's questions, raising their hands to share their ideas and personal experiences related to rubbing. The teacher then introduced a picture book and explained how to borrow books and the relevant borrowing rules in advance. During the reading activity, the children listened attentively to the story and followed the teacher's guidance throughout the reading process. After the picture-book reading, the teacher introduced the tools and materials needed for the rubbing activity, beginning with leaves as the primary material. The teacher guided the children to observe the leaves' shapes, sizes, and characteristics and introduced the names of the different types of leaves one by one. During the introduction, the children showed strong interest in the actual leaves and actively expressed their desire to touch and observe them. Through direct interaction with the materials, they were able to experience the leaves' shapes and textures. Next, the teacher demonstrated how to create leaf rubbings, allowing the children to observe the procedures and techniques involved. After the demonstration, the teacher invited the children who were interested in trying the rubbing activity to sit at the front and prepare for hands-on practice. The other children independently entered the learning areas according to their interests and choices. Overall, the activity progressed through a sequence of sharing prior experiences, picture-book reading, material observation, teacher demonstration, and hands-on creation. Through questioning, direct observation of materials, and demonstrations, the teacher provided appropriate learning scaffolding and gradually guided the children to understand the concept and techniques of rubbing. Through free choice and hands-on exploration, the activity supported the development of the children's observation, communication, creativity, and autonomous learning abilities.

4. CONCLUSION

Early childhood education constitutes the foundation of formal education and plays a crucial role in children's holistic development, with lasting implications for their future learning and growth. Compared with later stages of education, early childhood is generally characterized by relatively limited academic pressure and therefore provides an important context for fostering children's artistic and aesthetic development. Young children are naturally curious about the world around them and actively explore their surroundings through sensory experiences, play, movement, and interaction. From a child-centered perspective, early childhood art education should therefore move beyond the transmission of artistic knowledge and techniques and instead create opportunities for children to explore, experience, express, and create according to their interests, experiences, and developmental characteristics. Such an approach can foster children's aesthetic sensibility while also supporting their agency, creativity, self-expression, and holistic development (Shih, 2018a, 2018b, 2020a, 2020b).

Connection to teaching materials and methods in the aesthetic domain of early childhood education. This leaf-rubbing activity is closely connected to the teaching materials and methods used in the aesthetic domain of early childhood education. The activity uses "leaves," a natural material that children can easily encounter in their daily surroundings, as the medium for artistic creation. Through observation, touching, and hands-on exploration, children are guided to perceive the different shapes, colors, sizes, and natural textures of leaves. In terms of teaching methods, the activity adopts an approach of "guidance, demonstration, hands-on exploration, and creation." After providing children with basic rubbing techniques and procedures, the teacher allows them to independently choose leaves, colors, and arrangements, encouraging them to create according to their own ideas and preferences. The activity emphasizes the creative process rather than evaluating children primarily based on the completeness or aesthetic quality of their final products. Through trying, identifying problems, adjusting their approaches, and completing their artwork, children gradually develop aesthetic experiences and artistic abilities. For example, some children initially moved the leaves while making rubbings, resulting in blurred patterns. After observing the teacher's demonstration and learning from their peers' experiences, they gradually mastered the techniques, demonstrating a learning process that involved identifying problems and making adjustments independently. Furthermore, the older children were able to use multiple leaves to create layered and representational forms, with some even arranging the leaves into the shape

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of a rhinoceros beetle, demonstrating rich imagination and creativity. The younger children, in contrast, focused more on exploring different color combinations and observing the textures of leaf veins, accumulating visual and tactile aesthetic experiences through hands-on activities. This demonstrates that children of different ages can express their perceptions of natural beauty in diverse ways according to their developmental abilities and life experiences. Overall, this activity integrates natural materials, sensory experiences, aesthetic awareness, artistic expression, and autonomous creation. It not only provides children with opportunities to engage with nature and art but also enables them to develop observation, creativity, and aesthetic abilities through free exploration and artistic creation. In this respect, the activity reflects the principles of exploration, openness, autonomy, and process-oriented learning emphasized in teaching materials and methods for the aesthetic domain of early childhood education.

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