

*Art in Early Childhood*

# Wind project in a Korean kindergarten: A project-based Art Activity in Early Childhood

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## ABSTRACT

This study investigated how young children's drawings changed according to the three phases of a project. A project is an in depth study of a topic that is of relevance, and of interest, to a class or group of children (Katz & Chard 1989). The influence of various art materials on children's development was also examined.

The author investigated the drawings of six, five-year-old children from the Wonju kindergarten in Kangnung-Wonju National College where the Project Approach had been used for two years. Children's drawings were examined at each of the three phases of the project. For a qualitative approach, sample drawings were collected in portfolios and the activities and the contents of the drawings were analyzed carefully.

Representational experiences supported the children's development in phase 1 through memory drawing, in phase 2 through observation and memory drawing and in phase 3 through the appreciation of their drawings. The drawings in phase 1 were very simple, but they became more complex along with the increased knowledge about the topic in phase 2 and phase 3. The children could develop their knowledge, artistic sensitivity, expression of feelings, creativity and thinking power through the various representations with a wide range of art materials phase by phase. Considering the results of this study, the Project Approach is a useful way to support art education.

## Introduction

Many early childhood educators discuss the use of projects with young children (Diffily, 1996). A project is an in-depth study of a topic. The project method originated with Dewey and is currently advocated by Sylvia Chard and Lilian Katz (Katz & Chard 2000). Recently, many teachers of early childhood in Korea have become interested in the

Project Approach. For the past 30 years, teachers at the Reggio Emilia schools in Italy have been successfully implementing projects with their young students (Edwards, Gandini, & Forman, 1993).

In this project, art is not viewed as a separate part of the curriculum but as part of the whole cognitive symbolic learning of the developing child. Children's art works are not casually created but are the result of a guided exploration of ideas and events that are relevant to the lives of children and of the community (Gandini, 1984; Gandini & Edwards, 1988). Art is considered to be a highly symbolic activity and a form of cognitive expression (Seefeldt, 1995).

In addition, art is a personal way of communicating and it provides the child with a way to express unique ideas (Isbell & Raines, 2002). Art also serves as an index of a child's thinking. Art reflects what a child knows about the world. One must know about something before one can re-create it through art. Thus detailed artwork can indicate that a child knows much about that particular subject (Schirmacher, 2005). Specifically, children have a basic desire to express their own story or ideas through drawing pictures. Drawing or scribing is a primary activity and a typical form of expression that appears from the initial stages of development. Drawing can provide many opportunities for a dialogue between teacher and child, because watching children draw can provide teachers with a clear indication of some of the individual thought patterns of children (Brooks, 1995). Drawing activity is basic to children's lives and provides engaging experiences with their environment.

Moreover, children usually enjoy drawing and can express not only their internal imaginary world but also their problems, conflicts and feelings in everyday life. Thus they can relax while drawing and feel the happiness of expression and even the feeling of accomplishment. Victor Lowenfeld believes that individual self-expression in art is essential for healthy emotional and personal development (Lowenfeld, 1947).

This paper discusses children's art activities in the context of the Project Approach. It analyzes art activity processes in the three phases of a "Wind Project" in a Korean kindergarten. In addition, it examines how both the phased Project Approach activities and various representational materials influence the children's development.

## **METHOD**

### **Study Participants**

This study investigated the changes in the drawings of six, five-year-old children across the three phases of the project. The children attended Wonju Kindergarten in Wonju National College where the Project Approach had been practiced for two years. Although observing more children might provide a more adequate result, only six children were observed for a deeper level of analysis in a limited time.

### **Study Procedure**

This study investigated how children's drawings changed according to the three phases in the project. Firstly, how the drawings are represented in phase one. Secondly, how the drawings changed in phase two. Thirdly, how the drawings are finally represented in phase three. In addition, the influence of various art materials on children's drawing development was examined.

## **Data Collection and Analysis**

For a qualitative approach, sample drawings in the form of a portfolio were collected to analyze the phase-based art activities and the contents of the drawings. The author observed six participants' drawings for eight weeks in 2006 and also interviewed the children and their teacher several times. The sample drawings included children's project work drawings, observational drawings, memory drawings and field notes. The children were guided to use various materials in their works such as water color, wood, junk material, charcoal, transparency sheets, wire, clay, Chinese ink, color sand, strings, cellophane paper and so on. The children's drawings were analyzed and interpreted after listening to their explanation of the content of the drawings.

## **Literature Review**

In *Engaging children's minds: The project approach*, Katz and Chard (2000), describe project work as an innovative way to meet a wide spectrum of educational goals. The term 'Project Approach' describes a way of devising appropriate, active, engaging and meaningful learning (Helm, Beneke & Steinheimer, 1998). Projects for children are especially valuable in undertaking in-depth studies of real-world topics (Chard, 1999). The Project Approach is an emergent approach to developing and implementing curriculum in the classroom (LeeKeenan & Edwards, 1992). Project work emphasizes meaningful, real-life experiences. In project work, children can choose to follow their own research question. They design, plan and carry out their research investigations with the guidance of the teacher (Leskiw, 1998). The Project Approach enables children to test their ideas in a safe context where both children and teacher perceive misinterpretations constructively, and as opportunities for learning. As child-directed research studies, projects can take many different forms and areas of study.

Projects can last several days or can extend into two months. Ideas for projects should come from the children's experience with their world. Sometimes teachers suggest projects and sometimes children initiate projects (Gandini, 1993). As a way of learning, this method emphasizes children's active participation in their own studies. The teacher's role in the Project Approach is that of a guide and facilitator. When planning for a project the teacher selects the topic based on the children's interest, the curriculum and local resources. The teacher also brainstorms her own experience, knowledge and ideas in a topic web and uses this as a basis for developing the project. Projects allow teachers to integrate learning across the curriculum.

The Project Approach has three temporal phases such as the beginning, progressing and concluding phases (Booth, 1997). In Phase one of a project, called 'getting started' (Katz and Chard 2000), the teacher discusses the topic with the children, finds out what

experiences they have had, how much they know and how well they understand the concepts involved in explaining their experiences. The teacher helps the children to formulate questions about what they might be interested in investigating further. During the first phase of the project, the children also recall their own past experiences related to the topic.

In phase one of the project, 'Developing the Project', the teacher arranges opportunities for the children to do field work and talk to experts in that field. Phase two involves finding out new information about the topic. The teacher provides resources such as books and other research materials and activities for the children's hands on investigations. Special vocabulary is sought and posted for reference. The teacher involves each child so that he or she is working at his or her own appropriate level in terms of basic skills, construction, art, music and dramatic play. The teacher enables the children to be aware through group discussions and displays of all the different work being done. Answers are sought to the questions raised in phase one and new questions are asked. In phase two, which is the heart of project work, children are investigating, drawing from observation, constructing models, observing closely and recording, finding, exploring, predicting, and discussing and dramatizing their new understandings (Katz, 1994).

In phase three of the project, 'Concluding the Project', the teacher arranges a culminating event so that the children can share what they have learned. They can be helped to tell the story of their project to others outside their classroom. Selecting materials to share, the children involve themselves in reviewing and evaluating the whole project. The teacher also offers the children imaginative ways of personalizing their new knowledge and understanding through art, stories and drama (Chard, 1992). Culminating events include preparing and presenting reports of results in the form of displays of findings and artifacts, talks, dramatic presentations, or guided tours to make a meaningful transition for them between the project being concluded and the topic of the next project.

Drawing greatly enhances project work for children of any age. Most work products, whether they involve writing, diagrams or other forms of representation, are more interesting and informative when accompanied by drawings. In addition, the process of drawing itself is instructive.

In the course of a project, children can draw for a variety of different purposes throughout the three phases of the study. Information represented in drawings can come from three main sources in the context of a project: memory of past experience, present reality or creative speculation. Drawing in each of the three phases in the development of a project generally taps into these sources of information; phase one is more concerned with past experience, phase two with present reality and phase three with creative speculation (Katz & Chard, 1989).

According to Williams (1998), during the first phase, one way that children share their prior experiences and knowledge about a topic is through drawing. The drawings during this phase are mostly from memory. During phase two and phase three the children engage in observational drawings. Observational drawings are detailed drawings of various objects related to the topic. The object is in front of the children and they have the opportunity to study it intensely. The drawings also include labels



that identify the various parts of the drawn object.

Many different kinds of drawings can be included in the project work. Sometimes a drawing can be simply executed at one sitting or it may be revisited and added to several times before it is completed. In the case of a revisited drawing it may be of interest to the teacher as documentation of the progress made by the child. The children particularly enjoy expressing their experiences through drawing. Drawing provides a non-verbal means of communication to those children who do not command a large vocabulary to express their ideas. Hence drawing can create a dialogue between teacher and child, so the teacher can better understand a child's thinking through the drawing.

Watching children draw can provide the teacher with a clear indication of some of the individual thought patterns of children. Drawing combines the actions of the hand and the mind in purposeful and meaningful ways for children. Thus encouraging children to represent their experiences through drawing is valuable for their cognitive development (Brooks, 1995).

Forman (1990) suggests drawing as a way of supporting learning in the course of a project. He states that learning can be deepened by using various materials to explore a concept. This comes from the children's reflection, reinterpretation and revisiting of the concept through diverse art representation activities. Also, they acquire knowledge about the topic under study through the drawing of their own hypotheses and through using the art of representation as a learning device (Forman, 1994).

## **Results**

This study aimed to analyze the art activity process during the three phases of the Wind Project undertaken by children in Wonju Kindergarten in Wonju National College. In addition, it examined how using various materials influenced children's development.

Firstly, the teacher and the children discussed together what the topic of the project should be. 'Wind' was chosen for several reasons. Children could not enjoy playing outside because of 'yellow sand' (Asian dust), which often occurs in spring in Korea. The children also witnessed that the yellow sand removed the plastic covers of plant seedlings in their backyards. Thus, the wind aroused the children's curiosity. They thought that wind was a disruptive element and wanted to know where the wind came from.

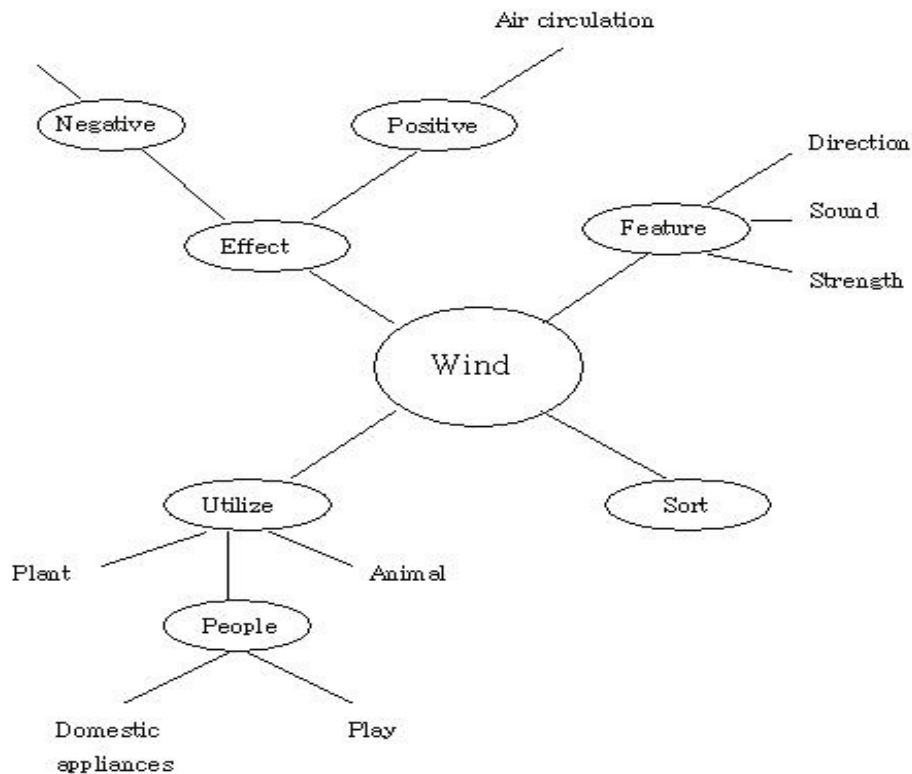


Figure 1

In the preliminary stage, the teachers thought of many possible directions in which the children's interests might develop through a study of 'Wind'. Teachers brainstormed ideas in a topic web and represented where the study might lead (Figure 1). This web shows the many possible directions this study might go.

The teacher often used a web to plan possible activities for the children. A web is open and flexible and allows the children's personal knowledge and interests to guide the direction the project can take. There are many benefits in studying wind. The children can learn about the importance of wind. They can also increase their interests and creative expression skills about wind. Wind provides several opportunities for dramatic play and role-play to connect literacy, music, dancing, science and numeracy to real life contexts.

During the project the teachers provided the children with various materials such as junk material, wood, water color, clay, charcoal, Chinese ink, transparency sheets, color sand, string and paper to facilitate the children's knowledge and creativity through various art representational activities.

## Phase One: Getting Started

To share their previous experiences, the children did a lot of activities such as memory drawings and writing, constructing with blocks and playing of dramatic roles. Through these processes they were able to show what they already know about wind.

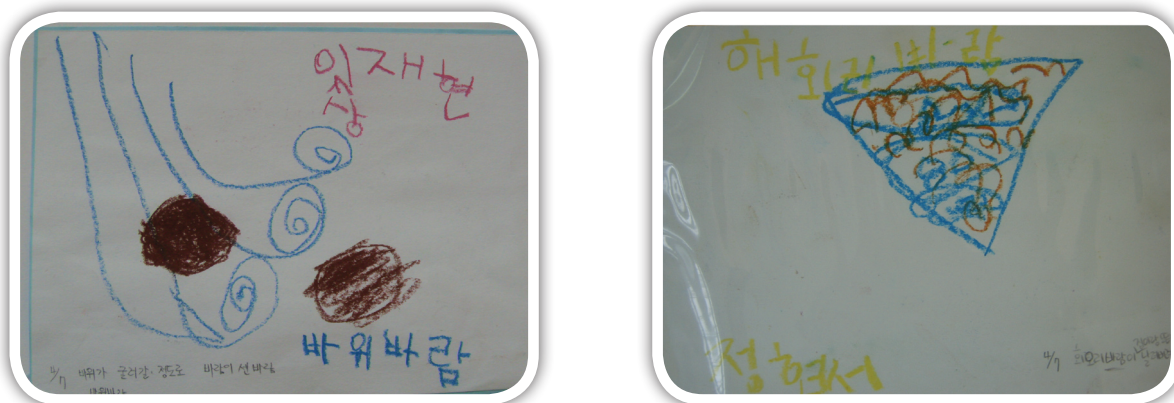


Figure 2. On the left a child's drawing of his experience of the strong wind and on the right a drawing of a whirlwind blowing off the house

The children also talked about wind with their teacher, so that the teacher could understand any misconceptions and record any questions. The children wondered why wind blows, how it becomes a severe wind, what gets blown away and why wind is invisible. They also wanted to hear the sound of wind and know about the movement, form, and strength of wind. In this phase the drawings were very simple, inexact and impressionistic (Figure 2). However the teacher invited children to share their initial knowledge and understandings in a variety of ways. This shared understanding facilitated the active participation and engagement of each child. It also gave the teacher a baseline upon which to build. The first phase at the beginning of a project usually lasted about two weeks.

## Phase 2: Developing the Project

In the second phase of the project, the work became more diversified. The children experienced and felt wind several times while they took a walk on a hill near their kindergarten. They also experienced the strength of the wind from the fan of an electric vacuum cleaner and an electric cooling fan. The children also explored domestic appliances such as hair driers, air conditioners and fans in order to know how wind is used in daily life. After that, they made "a wind castle" with constructing blocks. They also expressed their understanding of wind by drawing, writing and dancing. They measured the height a balloon would rise according to the degrees of an electric fan's strength and represented this on a graph. They flew parachutes, balloons, kites and paper airplanes and blew bubbles. They also made and observed wind indicators on the playground. They experienced that flying objects changed their movements according to the strength and the direction of the wind. They observed the pollen on the leaves of trees and wanted to study what it was. They observed and explored 'pollen wind' to discover how pollen is carried by the wind. They came to know that the wind carries the pollen, which propagates the plants. They also learned that the pollen could cause allergies in a person so they should stay indoors or wash their bodies after going out when a 'pollen wind' blows.

The children went on a field trip to the Daegwallyeong Wind Powerhouse to learn

more about wind. Before the field trip the children made a list of questions about wind. During the field trip they played with the wind and conducted a few experiments to observe the force of the wind and the movements of an object by the wind. They experienced many things in relation to wind and drew the salient experiences. They also learned about wind from an expert; why wind blows, what kinds of strengths, sounds and movements winds have; and what kinds of damage wind can cause. They watched different shapes of winds such as tornados and typhoons and learned how the winds are formed. After the field trip they discussed their experiences and they drew and wrote their observations about tornadoes, hurricanes and balloons.

The field trip spurred the children's curiosity about wind. They explored movements and speeds of wind and measured them by anemoscope and anemometer and represented them in drawings and a diagram. They also studied how to cope with dangerous typhoons and yellow sand, and represented them by drawing. For example, using the internet, they found out that the yellow sand is blown up by the prevailing westerly from the Gobi and Takla Makan deserts to the Korean Peninsula in early spring and it causes eye and respiratory infections so it is very important to wash carefully after going outside. Furthermore, exchanging emails with a weatherman after the field trip, they came to know the value of wind better. They learned that typhoons occurred because of a sudden change in temperature and that a typhoon has very good effects on earth such as circulating the air and the water in the sea.

In the second phase, many different block structures were made. The initial structures depicted simple winds. Later these depictions of winds became more sophisticated and they were used in a variety of socio-dramatic contexts with authentic dialogue and role-play. Most of the block structures were made through group collaborations. Three or four children worked, negotiated and planned together to construct and maintain a wind form. After they made their wind structure with blocks, they explained it to their classmates. Each child kept a record of the activities in his or her portfolio. They also made a book about wind.

Children's experiences through various project activities are the major source of information for drawing. Drawing from observation led the children to notice details and discover the relationships between things. As the project progressed, the children formed more scientific knowledge through gaining objective information of wind and analytical thought process. As a result, the children represented wind in more detailed and elaborate ways, showing more knowledge about wind than the works in phase one. This suggests that the children's knowledge increased along with the increase of observational ability. In addition, their depth of thinking, expression and creativity developed through those art activities with various materials. Their artistic representation became more creative and complex in phases two and three than in phase one.

## **Scenes of Activities**

What follows are a series of images that show some of the activities the children engaged in.





Figure 3a. Children experience and feel wind while they take a walk on a hill.



Figure 3b. Experiment with an electric fan to learn about wind strength.



Figure 3c. Children explore the wind strength while on a field trip.



Figure 3d. Children blow bubbles using a dandelion's stem to learn about wind direction.



Figure 3e. An anemoscope shows wind direction.



Figure 3f. Building a wind castle.

## Development processes of art activity

The next series of drawings show the changes in the complexity of children's drawings as they progress from phase one to phase two (Figures 4-7).

## Representation of the wind



Figure 4. In phase one Hyunseo draws the strong wind he has experienced (left). In phase two his drawing is more complex (right).

The two drawings in Figure 4 are drawn by Hyunseo (boy). In phase one, he draws a strong wind only with simple lines and colors. In phase two, he depicts more concrete stories in his picture: such as tornados being very dangerous so people should stay in the house in the tornado. He uses more complicated shapes, colors and scientific knowledge than in phase one.



Figure 5. In phase one Yejin draws the wind based on her initial personal experience (left). In phase two she depicts the pollen wind in detail, showing more knowledge of it (right).

In phase one, Yejin (girl) draws very simply the wind that lifts the dust up in the air (Figure 5). However, in phase two, the girl in the picture wears gloves and puts up an umbrella, showing that pollen can be dangerous for your health. The composition, colors, lines and shapes of the picture demonstrate an extension of Yejin's knowledge and artistic skills.





Figure 6. In phase one, Jaehyun draws the strong wind he has experienced (left). In phase two, his drawing is more complex (right).

Jaehyun (boy) draws a very strong wind with a rock only and calls the wind “a rock wind” in phase one (Figure 6). In phase two, the house is blown off by the wind and the ants hide in their underground nests to avoid the wind. The lines indicate the direction of the wind. The contents of the picture become richer and the expression also is more descriptive.

In short, the drawings in phase one were very simple, but became more complex in phase two, along with the increased knowledge about the topic. It is also shown that the children’s knowledge and understanding became more refined as a result of the artistic processes related to the topic.

### Representation activities in the second phase of the Wind Project

What follows are a series of photos that demonstrates the creative use of a range of art media used in this project:



Figure 7a. Representation of a balloon using plastic cases.



Figure 7b. Representation of a parachute using clay, strings, cotton balls and spangles.

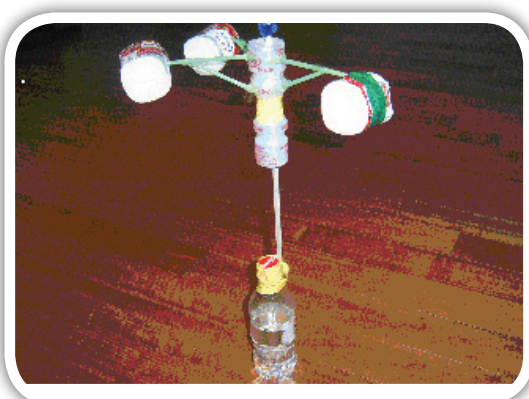


Figure 7c. Representation of an anemometer using junk materials.



Figure 7d. The child decorates representations of winds using wires.

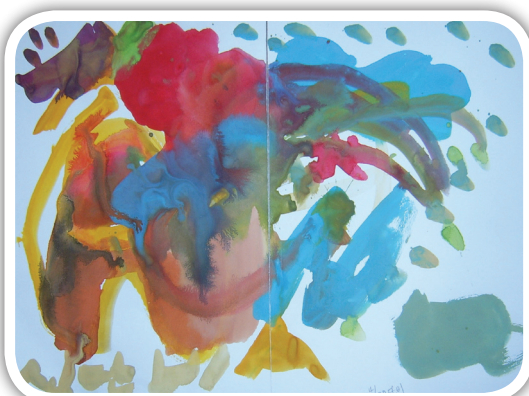


Figure 7e. Representation of the wind using watercolor.

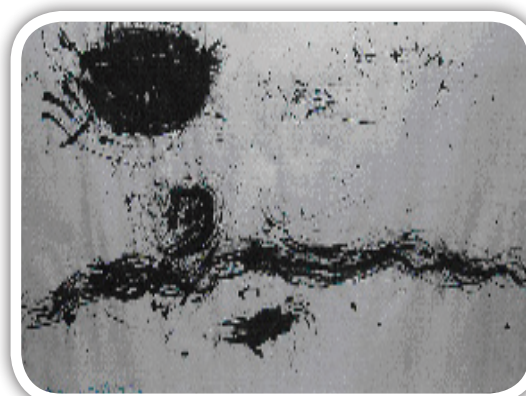


Figure 7f. Representation of the activity of the wind using Chinese ink.



Figure 7g. Representation of the wind using crayon and color paper.



Figure 7h. Representation of the flower wind using drawing, color paper and vinyl collage.





Figure 7i. Blowing on color sand to represent the wind.



Figure 7j. Blowing on color sand to represent the wind.

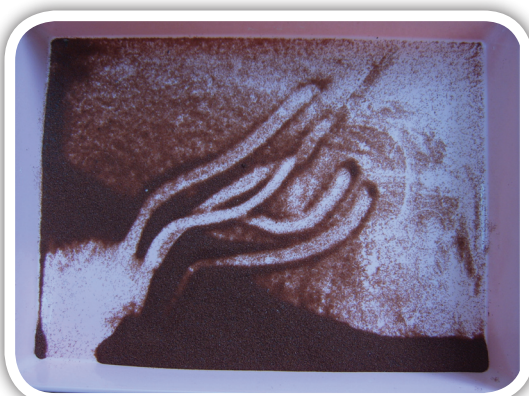


Figure 7k . Representing the wind by drawing in colour sand with the hand.



Figure 7l. A book about a flying balloon.



Figure 7m. Representing the wind with pencils, paper and cellophane.



Figure 7n. Representing the shape of the wind, waving hair and flying skirts.

These images show that when provided with a wide range of art materials in phase two, children were able to use them to extend their thinking, expressive and creativity ability. In addition, observational drawings and field notes using various materials also improved children's thinking power and observational ability. For instance, Hyunseo told me about his book (figure 7l) in my interview on May 10th, 2006.

This story book is about the balloon. I bought a balloon and I was so happy. But the wind flew it away. So I cried. The balloon turned round and round because of the wind. Oh, dizzy! Suddenly a bird discovered the balloon and exploded it with the beak. So the balloon fell down on the ground. I could get it back.

Hyunseo wrote the book by himself. It is a real life story, so the story is fun, interesting and creative.

### Phase 3: Concluding the Project

In the third phase of the project, the teacher evaluated the children's activities and studies and took time for students to give presentations in front of the class. In this way the children shared their understandings of what they had learned. Through discussion they assessed their works. After they learned about wind, they wanted to use the knowledge of wind in their daily life. Thus, to save the earth they decided to reduce waste in their homes and at the kindergarten. They made smaller waste buckets than before, so they reduced waste in a practical way. They also made a poster to reduce trash, and posted it in the snack room. As a result, the children did not leave any snacks, so the quantity of garbage was decreased. They recognized the value of wind. They realized that nature gave them many benefits such as fresh air but people destroyed nature carelessly. The parents who took part in the final sharing of the work recognized that valuable in-depth learning had taken place over the eight weeks of the project. After the presentation, the children drew and wrote their activities on paper with more creative speculation. It seems that they could internalize their knowledge of wind through their own evaluations. Their works developed very well from the beginning to the end of the project. Throughout all these processes, sharing their knowledge about wind, they developed more extensive artistic sensitivity and cognitive processes.

### Representation activities in the third phase of the Wind Project

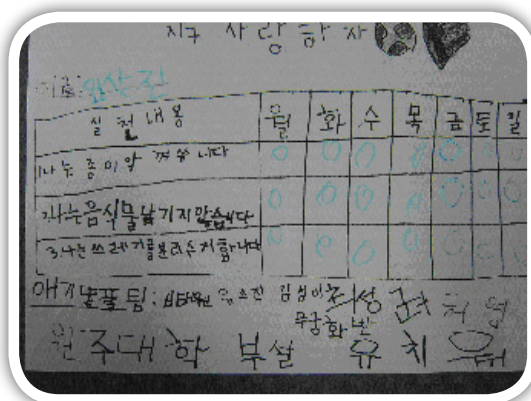


Figure 8a. The children record their promises such as reducing garbage at home, for one week.



Figure 8b. The children explain about the need for a clean environment, and how this is necessary to get fresh air.



After their research the children realized the importance of the earth so they wanted to tell others about earth protection.

### Developmental processes of art activity



Figure 9. Sujin's drawn representation of wind over the three phases

The three drawings of Figure 9 are drawn by Sujin (girl). In phase one, she draws some petals in the wind and calls it "pollen wind". This shows that she does not know about flying pollen wind. In phase two, she expresses the shape, the direction of the blowing wind, a frightened girl and the fine dust of yellow sand in detail. In phase three, the child applies her knowledge using an anemoscope to her picture. Now wind is blowing to the right side.



Figure 10. Sangjin drawn representation of a tornado over the three phases

The three drawings in Figure 10 drawn by Sangjin (boy). We can see his drawings have changed a lot from one phase to another. First, his drawings become more colorful. Second, the content of the drawing gets more refined and more precise. Third, the expression of lines and shapes becomes more refined. It is evident that he developed artistic sensitivity and scientific knowledge through each phase in the project.



Figure 11. Danbee's drawn representation of wind, a typhoon and a balloon, over the three phases

Danbee (girl) draws three drawings (Figure 11). In phase one the blowing wind is depicted in a linear manner. In phase two the typhoon is depicted more concretely with the eye in the middle and with a variety of color. In phase three she draws whatever she knows about the wind, such as a typhoon, a tornado and a balloon which use the wind. It shows that she found new information about the topic through project-based art activity and her knowledge of wind has increased.

## Discussion and Implications

This study analyzed three phases of art activity process in the Wind Project as an example of project-based art activity. It also examined how the phased, project-art activity using various materials influenced the children's development.

In summary, the drawings in phase 1 were very simple, but they became more complex along with the increased knowledge about the topic in phases two and three. Accordingly, it seems that the experience of art representation in each phase, such as memory drawing in phase 1, observation and memory drawing in phase two and appreciation of their drawings in phase 3 helps the children's knowledge development, artistic sensitivity, expression of feelings, observational ability, analytical thinking and creativity. For such a development, it is necessary that the project activities should be based on a wide range of art forms through the various representations phase by phase.

One of the important aims of all projects is to offer children an opportunity to use a variety of skills and concepts and to learn about something of personal interest to them. From this point of view, the Project Approach is intrinsically motivating for children.

In phase one the teachers find out the children's interests and their previous knowledge by asking them to draw memory drawings and writing on the topic. The children get a broad outline. In the first phase of a project when the children are discussing their own experiences, the representations are inspired by memories. Using various materials for the representation activity, children participate actively in the project from the beginning with an interest in the subject. However, drawings from memory often lack specific details. They are simple, impressionistic and inexact. Whatever the memory is, many children will have difficulty remembering details to represent. It is usually



easier to draw an item or process from observation than from memory. However, the data reduction involved in representing a memory can still serve the child and teacher well in reflecting the child's initial knowledge and experience with the topic of the study. Besides, drawing from memory can help many children articulate complex ideas. The drawing greatly helps the teacher and the child together to reconstruct the scene in words. This helps the child share his experience with other children and write a suitable caption for his drawing. It is only when the details of such a story are clear that the teacher can gain insight into how much the child understands about the topic as a result of the experience. The drawing completed in the early stages of a project represents children's early understanding of the topic. In phase one, children use less variety of materials than during phases two and three.

In phase two the teachers get the children involved in research, experiments, various activities and observations. The children acquire a broad range of ideas and detailed knowledge about the topic. During the second phase of the project the children extend and deepen their knowledge of the topic with a shared perspective from primary and secondary sources of information. During phase two their greater experience with real objects, events, processes and roles is the major source of information for drawing. For instance, in the Wind Project children sketched their interesting experience during the field trip. After the field trip they discussed their experiences and they drew and wrote their observations in detail on the paper. The field trip spurred the children's interest and involvement, so they asked many questions and also had much curiosity about the topic.

Most of the drawings in the second phase of a project are observational. Drawing from observation is informative for the children. Close observation leads the children to notice details and discover relationships between things. Also drawing can increase children's analytical thinking and knowledge development. Children's art representation becomes more detailed and elaborated, showing more knowledge about the topic than during phase 1. However, it is important to note that younger children will mix observational drawing with memory or symbolic drawing, adding in figures or objects which they would like to represent there as well. Thus children can develop feeling of expression and creativity.

In phase two children are also encouraged to experience additional materials, which bring about knowledge development and creativity. They represent and revisit and reflect the subject with those various materials. Thus children develop their thinking power, feeling of expression and creativity. In phase three the teachers let children evaluate what they have achieved from their study. The children appreciate their work and internalize the knowledge through their own evaluations. After the presentation, children represent their experiences and feelings through drawing with more creative speculation. Thus artistic sensitivity, expression of feelings and creativity are promoted. In summary, considering the result of this study, the Project Approach is a useful way to support art education.

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