REACHING FOR UNDERSTANDING: EXPLORING THE POTENTIAL OF
FOUR-YEAR-OLD CHILDREN TO UNDERSTAND WORKS OF ART

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Dissertation Prepared for the Degree of
DOCTOR OF PHILOSOPHY

UNIVERSITY OF NORTH TEXAS
May 2003

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This study was designed to examine how four-year-old children might be able to respond and interpret works of art. Informed by Jean Piaget’s and Lev Vygotsky’s theories of cognitive development, and building on Micheal Parsons’ and Abigail Housen’s theories of aesthetic development, the study investigated whether or not four-year-olds are able to expand their initial responses to achieve deeper levels of understanding about works of art.

The study involved three groups of five four-year-olds from a learning center in Dallas. The groups participated in six weekly visits to the Dallas Museum of Art. The 45-60 minute visits were interactive and led by one of two museum teachers. During the group visits, the museum teacher encouraged the children to think about and discuss their interpretations about works of art. Triangulation was used to obtain research data, and the study findings were analyzed for evidence of plausible interpretations of works of art based on both internal and external clues.

The study findings revealed that through their natural abilities to *associate and compare* concepts and objects, to *scaffold* or build upon ideas, and to *project* themselves into the role of an artist, four-year-old children are able derive plausible interpretations of works of art. The findings also demonstrated the importance of facilitating young children’s encounters with works of art, of helping them establish a *context* for
approaching, responding to, and deriving meaning from those works. Based on these findings, the author presents a suggested approach for art museum programming for four-year-old children.

While a great deal remains to be learned, the study contributes to our understanding about how four-year-old children are able to respond to works of art through facilitated discussions. Consequently, the study may help art educators and art museum educators to recognize and explore the potential of young children to have meaningful art experiences.
ACKNOWLEDGEMENTS

This study would not have been possible without the dedication and enthusiasm of Elizabeth Stroud and Sybil Carlson, to whom I am indebted for volunteering so much time and energy. I am grateful also to the staff at the Learning Center at First United Methodist Church of Dallas, particularly Director Jennie R. Hernandez, for the support and flexibility that was necessary to enable their daycare to participate in the study. To Connie Newton I extend my sincere appreciation for her friendship, as well as countless hours of reading and guidance. I convey my gratitude to other members of the Doctoral Committee who have supported my efforts along the way: Melinda Mayer for providing careful scrutiny and good advice, Carol Sue Marshall for contributing to my vision of the field of education, Jacqueline Chanda for challenging my ideas, and Nancy Berry for offering motivation and encouragement.

There are others who have contributed in a more indirect—but equally significant—way to this academic journey. I am deeply appreciative of my husband and three children who offered constant support and understanding and helped me to retain the proper perspective. I am also grateful to my parents for their part in helping me achieve my goals, and to my father for being my inspiration and mentor.
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CHAPTER I

THE CHALLENGE: UNDERSTANDING THE POTENTIAL OF
FOUR-YEAR-OLD CHILDREN TO UNDERSTAND WORKS OF ART

The task facing art museum educators is to design programs and services that meet the needs, interests, and abilities of their diverse audiences. In response to recent thoughts and research about early childhood education (Thompson, 1995), art museums are expanding their programs and services for preschool children and their families. However, these efforts seem to be based on a limited understanding about what and how young children can think about art.

Art museum programs and services for preschool children are designed around research (Parsons, 1987; Housen, 1983) that focuses on investigations of what children do naturally when responding to works of art. This research shows that preschool children are sensorial in their responses to works of art, are rarely able to think about works as artistic pieces, and have a limited concept of time (Kerlavage, 1995). These characteristics do indeed limit the child's ability to perceive, understand, and discuss works of art. However, as summarized by Kerlavage, research (Vygotsky, 1978) also suggests ways to help children overcome their tendencies toward sensorial response and achieve deeper levels of understanding about works of art. Through developmentally appropriate approaches, young children can learn to think abstractly and view the world from other perspectives.
The purpose of this study was to determine what and how four-year-old children think about art. Building on previous research that examines how young children naturally respond to works of art, it investigated whether or not four-year-old children are able to expand their initial responses and develop their skills of perception to arrive at deeper levels of understanding about artworks in a museum. By exploring the potential of four-year-old children to derive plausible interpretations of works of art, the study shifted the focus from what four-year-olds do independently, to what they might do through interaction with their peers and a facilitator. It changed the question from "How do four-year-old children perceive and interpret works of art?" to "How might four-year-old children perceive and interpret works of art?"

By seeking plausible interpretations, the study did not seek "correct" interpretations of works of art. Rather, the study focused on the thinking process by which four-year-old children derive their interpretations. This process was evaluated based on verbal and non-verbal expressions. Therefore the study was not only concerned with ways in which four-year-old children perceive and interpret artworks, but also ways in which they express their perceptions and interpretations.

The research design used qualitative measures to investigate how four-year-old children respond to works of art in a museum with a facilitator. Triangulation was used to acquire as much information from as many different perspectives as possible. Museum visits were audio and video recorded. Parents, classroom and museum teachers (who acted as the facilitators in the study) were encouraged to communicate with the researcher throughout the study by verbal or written means. The museum teachers kept
journals and were interviewed weekly. At the close of the study, interviews were conducted with the study subjects as well as the classroom teacher. The effectiveness of these research measures however, was contingent upon the efforts and cooperation of parents, classroom and museum teachers, and study subjects. While a great deal was learned simply by observing and recording the children's museum visits, the involvement and contribution of the museum and classroom teachers produced a more comprehensive understanding about the children's ability to respond to works of art.

By contributing to our understanding about how four-year-old children might respond to works of art in a museum, the results of this study may help art museum educators to recognize and explore the true potential of young children to have meaningful art experiences in the museum and beyond. As Gardner and Winner (1982) eloquently state:

> Children are being shortchanged if they are not exposed to (these) ways of thinking about the arts. Indeed, if children are left to acquire understanding on their own, the whole domain of the arts may remain for them as distant as a star, as mysterious as the speaker of a dead language (p. 109).

This study represents one step toward enabling art museums to create programs that address the needs, interests, and abilities of their youngest audiences. In this way, art museums can become wondrous places where young children are introduced to ways of thinking about art, hence to new ways of seeing the world.

The Status of Early Childhood Art Education in the United States

In Building Knowledge for a Nation of Learners, a report published five years ago by the U.S. Department of Education, it is cited that approximately thirteen million
children attend early care or education programs. In addition, over the past three
decades, due to increasing numbers of women joining the work force, the percentage of
three and four-year old children enrolled in preschool rose from 11% to 48% (Robinson,
1997). This rising demand for early childhood programs has prompted the nation to
consider the needs and capabilities of young children and the affects of early education
on their socialization and learning (Thomson, 1995).

Research agendas established through the U.S. Department of Education
recognize the value of providing better services and education in early childhood, and
support the arts as an integral part of a quality education for young children. With the
enactment of the bi-partisan Goals 2000: Educate America Act of 1994, education
specialists recommended that the arts not only be a part of a quality education for every
child, but a core area of study in which American children are expected to achieve
competency. The U.S. Department of Education formed a partnership with the National
Endowment for the Arts- the Arts Education Partnership-in order to establish goals for
educational research. While these goals for early childhood art education are indeed
worthwhile and ambitious, some fall short of fully addressing the needs and capabilities
of young children.

The Goals 2000 Arts Education Partnership Task Force on Research produced a
report entitled Priorities for Arts Education Research (Murfee, 1997). One of the report's
recommendations is that studies be done to investigate the effects of art education on the
learning and development of children from birth to age five. But what is the nature of art
education for such young children? What defines a quality early art education program?

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Research should also include investigations of how children under the age of six understand and learn about art so that developmentally appropriate programs can be designed and implemented. Then the effects and benefits of those programs can be examined.

*The Partnership Task Force On Children's Learning and the Arts: Birth to Age Eight* produced another report, *Young Children and the Arts: Making Creative Connections* (Bruce, 1998), that addressed developmentally appropriate ways to introduce the arts to young children. The report offers insightful guidelines for explorations in all areas of the arts. However, with regard to the visual arts, the report focuses on art making and does not provide suggestions for looking at and exploring works of art created by others.

Previously, in 1994, The National Art Education Association (NAEA) adopted its own ambitious plan: *Creating a Visual Arts Education Research Agenda Towards the 21st Century*. This agenda establishes that the NAEA would direct research efforts toward all levels of art education, from preschool through lifelong learning, in a variety of contexts both within and beyond schools. And yet in the 1998 NAEA status reports (Zimmerman, 1998) none of the task forces recommends or reports on research of preschool children. The *Task Force on Student Learning* (Burton, 1998) suggests that further research be done in K-12 classrooms, but preschool children are not mentioned. Although preschool children were included in the original vision, somewhere along the way they have been overlooked.
For the purposes of this paper, the reader should understand what is referred to by the term *preschool* and be clear about the distinction between the terms *preschool* and *early childhood*. "Early childhood" designates the period in a child's life between birth and age eight (Thompson, 1995, p.2), and "preschool" is generally used to refer to pre-kindergarten, ages three to five. Thus theories of early childhood education apply to the subgroup preschool children, but theories about preschool children may not necessarily apply to toddlers or to school-age children.

Educators and developmental psychologists agree that during early childhood, children require different forms of education than are traditionally presented in the elementary school. Early childhood specialists advocate hands-on, self-initiated, and self-directed approaches for young children up to the age of nine (Thompson, 1995). Reggio Emilia, a progressive preschool in Italy, is based entirely on this form of pedagogy. For this reason, over the past decade, it has received a great deal of attention from preschool educators in the United States. The curriculum at Reggio is project-based, child-directed, and organic; the projects are determined as the children express their ideas and interests, and the instructors work in groups to facilitate a process of exploration and discovery related to that particular project theme. For example, if the children are found playing in a puddle of water before they enter the school one morning, an entire unit might be organized around the idea of rain and puddles. The content of that unit however, evolves through teacher collaboration and depending upon how the children develop the ideas presented (Edwards, Gandini, & Forman, 1998).
The Reggio Emilia approach acknowledges the diverse abilities and learning styles of its students. It provides children with opportunities to express themselves in as many different ways as possible. To this end, the arts are a vital component of Reggio's pedagogy. Students may choose to role-play, create music, or make a sculpture in order to express their ideas and communicate their understanding about a particular subject. However, while Reggio Emilia offers many opportunities for young children to make art, it does not necessarily incorporate the study of visual arts. The children look at, discuss, and share their own creations, but do not customarily engage in conversations about adult works of art.

This focus on art making has a strong tradition in the preschool classroom. Based on the notion that hands-on exploration is the primary means by which young children learn, the preschooler's exposure to the visual arts focuses on arts and crafts activities that usually, at best, provide opportunities to experiment with different media. Discussions in these settings involve little more than cursory comments about the child's ability to manipulate materials or render certain subject matter. This comes as no surprise since, as Thompson (1995) points out, pre-service instruction for preschool teachers rarely includes formal background in the theory or practice of art education. Perhaps as programs to certify early childhood educators multiply, and art educators become more involved in the preparation of preschool teachers, the conception of early art education will expand to include discussions of works of art (Thompson, 1995).
The Status of Art Museum Education for the Preschool Child

In a prevailing climate of thought about the needs and abilities of young children, art museums have renewed their efforts to design and implement programs for their young audiences. Many art museums have long traditions of programming for small children. These traditions find their roots in the first decades of the 20th century when art museums were trying to appeal to and meet the educational needs of mass audiences.

After Henry W. Kent was appointed Supervisor of Museum Instruction of the Metropolitan Museum of Art in 1907, he established a Saturday children's story hour whose principal emphasis was on art in relation to other subject areas. The Toledo Museum of Art organized studio-based classes for children as young as three years old in which original works of art were used to encourage creative self-expression during the studio activities (Zeller, 1989).

Since its opening in 1916, the Cleveland Museum of Art has offered special children's programs. As the first museum to allow children to draw in the galleries, it helped to establish a progressive precedent in the field of museum education. When Thomas Munro became the director in 1931, the children's educational programs were expanded to include performing arts (Turner, 1991). In the '30s, the Cincinnati Art Museum offered school tour programs that were interdisciplinary and related art objects to literature, music, history, and geography (Zeller, 1989).

Victor D'Amico was another strong advocate for children's programming in the art museum. As head of the education department at the Museum of Modern Art (MOMA) from 1937 to 1970, he believed that young people and art making should be the
primary goals of art museum education. Therefore, his educational programs at the MOMA focused on opportunities for children's creative expression (Zeller, 1989).

Since their beginning in the early 1900s, these programs for children have become a standard practice in many art museums. However, children's programs have not evolved much from their traditional emphasis on art making or the use of art objects to teach other subject matter.

In 1988, the Smithsonian Museum opened an Early Enrichment Center (SEEC) and developed an object-centered curriculum that is based on high but realistic expectations about what preschoolers can learn and understand. The curriculum introduces complex concepts such as *history*, *creation*, *invention*, and *projection*. The SEEC program introduces three, four and five-year-old children to object-based learning, promotes visual literacy, and encourages the integration of the arts into classroom themes (Bickford & Ruddick, 1996).

Initially, while the lessons at SEEC were not studio-based, the Smithsonian collections were used primarily as a means of discussing a specific theme, to illustrate how artists depict or represent that theme. For example, if a teacher was doing a unit on the family, the children might have been guided to the galleries to look at artworks that represented that particular theme. In these early cases, discussions about works of art focused upon, and were somewhat limited to subject matter. Children became familiar with the museum experience, were able to see original works of art, and learned to articulate their ideas as they might relate to objects in the galleries.
However, in the last few years, the program has evolved to focus more on learning about the works of art, the artists who created them, and the context in which they were created. Works of art are not simply interwoven into the study and discussion of other subjects but looked at and discussed for their own sake. With this change in focus, the program begins to explore the potential of preschool age children to respond in to original works of art on more meaningful levels. Designed to be consistent with the ways in which young children learn, it is guided not by assumptions about what preschoolers cannot do, but by what they can do.

Special programs for preschoolers like SEEC, are rare, and generally most young children's museum experiences occur in a family context. Adults bring children to the museum for entertainment, social reasons, and to learn. The nature of these museum visits is determined in part, by the family background and its mode of interaction, including parenting or teaching styles (Hein, 1998). Museums, recognizing the complex character of the multigenerational group, have sought and continue to seek ways to understand and enhance that family experience.

Falk and Dierking's (1992) report on research of family behaviors in art museums identified different social structures, interests, needs, and learning styles that motivate family behavior in the art museum. They found that less-structured programs enable families to direct or customize their museum experience based on the personalities and backgrounds of their individual members. This conclusion seemed especially pertinent to family groups with preschool-age children.
In an unpublished study (Smith, 1998) that examined the current philosophies and practices of art museum educators, it was discovered that few art museums offer structured programs for children under the age of six. The study involved three museums which, based on a literature review and interviews with local (Dallas-Fort Worth) art museum educators, were recognized as exemplary in the area of family programming: The Philadelphia Museum of Art, The Oakland Museum, and The Art Institute of Chicago. Visits and interviews at the three institutions led to the conclusion that these and other museums generally offer three types of services for preschool children: interactive spaces, drop-in activities (including family days), and self-guided activities which sometimes take the form of printed guidelines or suggestions for looking at art with young children. Such "guidelines for looking" are often presented on museum websites, as was substantiated through an Internet search for art museum programs for families.2

Attempts by art museums to create family programs that are based on more traditional visit formats often have disappointing results. The Dallas Museum of Art for example, tried a family program that included a short tour followed by a simple related activity. However, because social and motor skills vary greatly among preschoolers, it was a challenge to design tours and art-making activities that were appropriate and interesting for all members of the group. Benefiting from this experience, the Museum designed Discovery Days, a series of classes for preschoolers and their adult partners. At each class, the participants are presented with special boxes containing pictures, objects, and gallery maps that relate to works of art in the collection. After the children explore
the boxes' contents in the studio, they are invited to visit the galleries to find and discuss the original works of art with their adult partners. During this time, a staff member is available to assist and respond to questions.³

Though the success of the new program at the Dallas Museum of Art is yet to be determined, it represents one attempt to provide a more structured family visit. While the young children and their adult partners are able to "work" at their own pace, the materials and staff member serve to more directly guide or facilitate their experience. Unfortunately, other ambitious art museum educators develop family programs in much the same way—through a process of trial and error. They continue to question their programs and practices, and the issue remains: Is it enough to simply expose young children to the visual arts? Can and how might our programs more actively engage preschool-age children and their families with works of art on a more meaningful level?

Current theories about young children have led museum directors and educators to acknowledge the value of preschool experiences with works of art, and as a result, they are expanding programs for young children and their families (Lund & Osborne, 1995). However most of these programs are not necessarily directed toward helping the children learn about or from the art; they are not concerned with facilitating meaning-making. Rather they focus on promoting an early interest in the arts, developing children's confidence in their ability to engage in simple discussions about art, and ultimately, creating future patrons of art and the art museum. While these goals are important, perhaps they are based on the assumption that one cannot expect more ambitious learning outcomes for preschool children.
The Nature of Museum Learning

One can hardly talk about encounters with or responses to original works of art without addressing the museum context, the place where those encounters are most likely to occur. In the last ten years, a great deal of research and attention has focused on the unique aspects of museum learning. The museum is a special environment that provides visitors an opportunity to engage with original cultural objects, and a number of internal and external factors affect how they respond to the experience.

Following years of visitor research, Falk and Dierking (2000) have identified the factors that influence museum learning and grouped them into three different categories, or contexts: the personal context, the sociocultural context, and the physical context. The personal context relates to the individual's experience, attitudes, abilities, and interests. The sociocultural context has to do with the group aspect of the experience, the people with whom a person interacts during the museum visit. Finally, the physical context is the actual museum space or the way in which objects and exhibits are presented to the visitor.

According to Falk and Dierking, these contexts (and the constant interplay between them) determine visitor perceptions and either contribute to or detract from museum learning. Therefore, they recommend that museums seek ways to maximize the personal, social, and physical natures of museum learning.

The Personal Context

Since the museum experience usually involves free-choice learning that is personally motivated, non-linear, and based on individual choices about what and how to learn, it may vary greatly from one person to the next. As museum researcher Roberts
(1997) explains, each museum visitor's experience is individually unique as s/he constructs a personal narrative or interpretation about the museum objects and exhibits. Every person will filter her/his experiences to focus on those aspects that are perceived to be relevant and to ignore those that are perceived to be irrelevant (Falk & Dierking, 2000).

Thus, in recent years, museum researchers have defined museum learning as a process wherein visitors choose to accept, reject, or modify new ideas and find or make their own meanings. To facilitate this process, researchers such as Falk and Dierking propose that museums find ways to make the museum visit more engaging and meaningful for its audience. Hein (1998) for example, recommends that museums consider a more constructivist approach in their exhibit designs and educational programming.

Hein describes the constructivist visit (exhibit or program) as providing visitors opportunities to both construct and validate knowledge gained through experience. As he points out, such an approach places greater responsibility on museums to actively engage visitors through interactive, hands-on experiences, and to make the experience physically, socially, and intellectually accessible to visitors. In order to achieve these goals, Hein suggests that museums acknowledge the importance of two primary roles: helping visitors make connections between the museum experience and past personal experiences, and providing visitors with a variety of experiences that enable them to use one or more learning styles when approaching museum objects or information.
Recognizing its responsibility to help visitors make connections to the familiar, the constructivist museum (according to Hein) will not only design gallery spaces that relax and orient the public, but also relate museum objects and information to everyday, common objects and ordinary events. In so doing, the museum establishes a way to approach and understand new concepts and ideas. Acknowledging its second responsibility to address different learning styles among visitors, the constructivist museum will also present a variety of means to interact with and respond to objects and exhibits. It will make the experience accessible to a vast audience by inviting visitors to use all of their senses to think, learn, and express their ideas.\textsuperscript{5}

The Social Context

Increasingly over the years, museum researchers emphasize the importance of social interaction as a key element of museum learning. Falk and Dierking (2000) describe how the sociocultural context contributes to learning:

As people interact, they also talk about what they know from previous experiences, discussing what they see, hear, and read in term of these experiences and memories. As researchers have observed, these discussions provide opportunities for people to reinforce past experiences and, in the case of families, family history. . .and to develop a shared understanding among members of the group. It is during many of these conversations that one observes people's efforts to negotiate personal and cultural meaning, actively making sense of the interpretation presented and attempting to relate it to their own experience and worldview (p. 45-46).

As Falk and Dierking point out, the family group adds a unique dimension to museum learning. Indeed, with any group an individual's experience is enhanced through interaction with other members of the group. However members of a family group share
something special: a culture of knowledge, experiences, and values (Hein, 1998). This shared background creates a context for approaching, understanding, and sharing ideas about museum objects and information.

The social aspect of museum learning is particularly significant when referring to preschool experiences with original works of art. After all, most preschoolers visit the museum with their families. Therefore, for the preschool child, museum learning is a social process; interaction and conversation are the primary means by which they construct and convey meaning (or understanding) about works of art. It follows that art museum programs for preschool children should be designed to be consistent with these ways of learning and responding to works of art.

By initiating group discussions that are appropriate and relevant to preschoolers, the Smithsonian's program (SEEC) does indeed begin to explore their potential to learn and respond in meaningful ways to original works of art. What is needed however, is a body of research that validates such efforts by carefully investigating and contributing to our understanding about what and how young children think about art. Then, equipped with a deeper understanding, art museum educators can begin to more confidently design and implement programs for young children.

A Statement of the Research Problem:

Inquiring About the Four-Year-Old Child's Ability to Understand Works of Art

This study was designed to explore four-year-old children's responses to and understanding of works of art. The central question guiding the research was: How might
four-year-old children perceive and derive plausible interpretations from works of art in a museum?

A pilot study conducted with a group of five children at the Dallas Museum of Art (see appendix) raised the following related questions, which deepened the inquiry and contributed to the final research design:

- In the context of our understanding about the cognitive abilities of four-year-old children, what might be considered a plausible interpretation of a work of art for the four-year-old child?
- Is there such a thing as a plausible interpretation of a work of art for the four-year-old?
- Can others (peers and adults) affect the way four-year-old children think about art? If so, how? Are there certain methods or activities that enable (or lead) the four-year-old child to derive valid and meaningful interpretations of works of art?
- How might four-year-old children demonstrate their understanding about works of art? How might they express their perceptions and communicate their understanding?

These related questions narrowed down the central inquiry to consider specific factors (identified and discussed below) in the collection and evaluation of study data. In the final analysis, the study contributes to our understanding about how and what four-year-old children understand and communicate about works of art. The study resulted in a recommended approach for discussing works of art in the museum with four-year-old children. Hopefully, it will inspire further research in the areas of art museum education and early childhood art education.
Identification and Definition of Concepts Related to Understanding Works of Art

How might four-year-old children understand works of art? To address this question, one must first consider what it means to understand works of art. What constitutes understanding when one approaches an artwork? How do we know when someone understands a work of art?

*Understanding* is linked to *meaning-making* and *learning*; they are all interweaving aspects of a single process. When a person learns, s/he achieves understanding, derives or attributes meaning to a given experience based on previous knowledge and past experience. The process involves more than the acquisition of facts and concepts; it is making sense of an experience.

In a book entitled *Learning Theories of Teachers*, that reviews theories of learning, the authors (Bigge & Shermis, 1999) explain that understanding is seeing both relationships and the purpose or function of something. According to this definition, the two processes are essential and complementary. To understand an object, process, idea or fact is to perceive it in terms of its relationship to other objects, processes, ideas or facts and to perceive it in terms of its significance or purpose. This definition strongly suggests the importance of perceiving, making sense of new information within the context of previous experience, knowledge and understanding.

For decades, philosophers and aestheticians have pondered what constitutes understanding when referring to works of art. According to Rudolf Arnheim, understanding works of art involves aesthetic perception. In his writings (1969), he
analyzes perception as it relates to visual art. Perception is an intellectual process through which the viewer derives meaning about visual images.

Arnheim describes this process in Visual Thinking (1969): The observer starts from somewhere, tries to orient himself as to the main skeleton of the work, looks for the accents, experiments with a tentative framework in order to see whether it fits the total content, and so on. When the exploration is successful, "the work is seen to repose comfortably in a congenial structure, which illuminates the work's meaning to the observer"(p. 13). But what makes the exploration of a work of art successful? What skills are involved in the process of perception?

According to Broudy (1987), understanding is achieved through four skills of aesthetic perception. Those skills (listed in the subsequent section addressing study methodology) direct the viewer to different qualities or properties in the works of art: sensory, formal, technical, and expressive. The expressive qualities are those aspects through which one attributes meaning to works of art. In other words, like Arnheim, Broudy suggests that through the perceptive process one derives interpretations of works of art. This relationship between aesthetic perception and interpretation warrants further consideration. First, what is interpretation?

In his introduction to a series of essays on "Understanding Works of Art," Kennick (1979) offers his definition and description of interpretation. He asserted that understanding works of art always involves knowing whether they represent something, and if so, what they represent. Understanding then, involves some sort of explanation about the ideas or meaning expressed through the works of art, an explanation that aids
understanding. This explanation is interpretation, and according to Kennick, interpretation is an integral part of understanding.

Works of art however, are open to many interpretations. According to Hampshire (1979), interpretations of works of art should not be considered absolute or exclusive of different interpretations. To speak about an interpretation of a work of art as being correct or incorrect is unnecessary, if not inappropriate. Rather, as Hampshire explains, interpretations of works of art should be considered in terms of their plausibility. Based on this notion, the proposed study is concerned with children's abilities to derive plausible interpretations.

This idea of seeking a plausible interpretation prompts the questions: What criteria should one use to determine whether or not an interpretation (that of an adult or a child) is plausible? Are there skills of interpretation like Broudy's skills of aesthetic perception that can guide one's assessment of a particular interpretation?

A discussion of the functions and abilities involved with viewing works of art can be found in the writings of Thomas Munro. A pioneer in the field of art education, Munro was a progressive thinker who continues to be recognized for his significant contribution to the philosophy of aesthetics. In his selected essays, *Art Education: Its Philosophy and Psychology* (1956), he claims that while there is no right way to look at art, there are "certain ways of responding to art that involve highly developed skill and understanding, while others do not" (p. 124). Munro describes the abilities that promote a full response to works of art. These abilities (listed in the subsequent section dealing with study methodology) have to do with sensory perception, imagination (and empathy),
reason, and knowledge about the history and theory of art (Munro, 1956). Together, these abilities enable the viewer to successfully approach and understand works of art.

While Munro admits that there is no "right way" to look art, he does advocate that some ways-those based on a combination of skills and knowledge-are more privileged than others (an opinion shared by Broudy, Kennick, and Hampshire). This notion seems to conflict with postmodern thought, which acknowledges the importance of multiple perspectives and interpretations. According to this philosophy, objects possess many different stories and meanings, and depending upon the context in which they are presented and interpreted, they may all be potentially valid. (Roberts, 1997).

According to some contemporary thinkers, external information may not be insignificant, but it is not considered a necessary component of art appreciation. For example, unlike many of her predecessors (such as Kennick) who consider understanding of art and appreciation of art to be closely linked, Anna Kindler (1997) perceives these as two separate processes. She makes a distinction between declarative and attitudinal knowledge. Declarative knowledge is about artists, their works, the historical, social, political, cultural contexts in which the works were created, and their relevance today. Attitudinal knowledge is the sense of pleasure that comes from experiencing works of art. Kindler maintains that understanding has more to do with declarative knowledge and appreciation more to do with attitudinal knowledge. Furthermore, understanding does not necessarily affect appreciation. Perhaps rather, an overemphasis on careful interpretation and the search for underlying meanings in art dilutes the aesthetic response. Based on this
supposition, Kindler challenges art museums to place greater value on and to seek ways to teach attitudinal knowledge.

The reader should know that I do not espouse Kindler's conception of understanding as relating only to objective knowledge and separate from appreciation. Rather, understanding may be based on external information about the work of art and/or on internal information from the work of art. Understanding in turn leads to appreciation, which is defined as perceiving the value (or to use Bigge and Shermis's words the "significance or purpose") of something. Appreciation is based on understanding (objective or subjective); the deeper one's understanding of a work of art, the more one has to base her/his appreciation of that work.6

Based on these notions of understanding and appreciation, it may be argued that indeed, one can understand and appreciate a work of art based purely on her/his personal response to it. However, it may also be argued that the more one learns from, through, and about the work, the deeper and broader one's level of understanding and hence one's appreciation.

Based on the above conception of understanding (as linked to meaning-making, learning and appreciation), the study examined children's responses to art for evidence of plausible interpretations. The objective of this research was not to produce a definitive list of criteria upon which to judge whether or not an interpretation is plausible. However in order to explore children's understandings about art, a framework had to be established for analyzing their interpretations of works of art. That framework was based on the ideas of Broudy and Munro.
To summarize, the reader should be clear about what is meant by the terms understanding, perception, and interpretation. Based on the ideas explained above, this research study was grounded in the following premises:

Understanding works of art is a meaning-making process involving two separate acts: aesthetic perception (the process by which a viewer derives meaning about visual images by attending to different qualities in the works of art: sensory, formal, technical, and expressive) and interpretation (an explanation about the ideas or meaning expressed through the works of art).

Perception and interpretation involve separate but interconnected sets of skills; skills of perception contribute to abilities or skills of interpretation. Hence, it follows that the more successful the perceptive process, the more likely one is able to derive a plausible interpretation.

The challenge of this study was to determine if and how four-year-old children possess or can develop the skills of perception in order to arrive at plausible interpretations.
CHAPTER II

INTRODUCTION TO DEVELOPMENTAL THEORY

What do theories of cognitive and aesthetic development tell us about the four-year-old child's ability to perform skills of perception and interpretation? How do they contribute to our expectations about how and what four-year-old children perceive and interpret of works of art?

For the purposes of this study, two theories of developmental psychology were examined: those of Jean Piaget (1966) and Lev Vygotsky (1978). These theories have significance to both the fields of art education and museum education, and are summarized and discussed as they might relate to the preschool child's perceptions and interpretations of works of art. The theories of aesthetic development presented by Micheal J. Parsons (1987) and Abigail Housen (1983; 1991) are also discussed to provide the reader with a basic understanding about how the preschool child might naturally be inclined to approach works of art. These theories of cognitive and aesthetic development guided (but did not determine) the study structure and methods and provided a basis for understanding its findings. However, the results of the study are not adapted to "fit" any of these theories, nor are they used to produce a new theory of cognitive or aesthetic development.
Two Theories of Cognitive Development

Jean Piaget is seminal in the field of child development. While no theory of cognitive development alone is adequate to explain human behavior, Piaget's theory is perhaps that which is most often held up for discussion and scrutiny. It has become a model to which other developmental theories are often compared. Lev Vygotsky's theory also contributes greatly to our understanding about child development. However, what makes his theory most relevant to this study is his emphasis on the sociocultural context of human development. This research explored this notion, focusing less on what four-year-olds do independently, and more on what they might do through interaction with their peers and a facilitator.

According to Jean Piaget, (1966) the human being progresses through a series of five developmental stages. One's development through these stages is guided by four components: emotions, maturation, experience, and social interaction. As children mature to adulthood, they transition from the sensorimotor stage when understanding involves only perceptions and objects with which they have direct experience, to the formal operations stage when understanding involves abstract and hypothetical thought.

Piaget identifies two basic processes in the stages of a child's development: assimilation and accommodation. Assimilation is the process by which a child filters new information through pre-existing patterns of understanding. For example, when a child sees a dog for the first time, she might relate it to her previous experience with a family pet, a cat. Placing the new animal into a category she already understands, she might refer to it as "kitty." If corrected, she might learn that all small, furry animals are not cats.
Accommodation is the subsequent process by which a child alters existing paradigms to fit new information. The child encountering a dog for the first time might modify her pattern of understanding of the new animal to create a different category such as puppy or woof.

Children between the ages of two and seven are functioning in the preoperational stage. At this cognitive level, while they can reason from the specific, and think forward from the beginning to the end of a process, they cannot reason in reverse (retrace the steps of a process or reverse the direction of their thought). Preoperational children are egocentric and view the world in terms of how they are personally affected. Thus they have difficulty seeing other points of view, and their reasoning is greatly influenced by personal needs and desires.

These characteristics powerfully affect the preoperational child's ability to think historically or to empathize with the feelings and experiences of others. This inability to relate to the past or to another person's experience seem to have led educators to conclude that the introduction of historical facts and concepts is essentially meaningless to the preschool child. Those who have formulated this opinion, however, have only considered a part of Piaget's theory. Piaget describes not only the cognitive limitations, but also the cognitive abilities of the preoperational child. He tells us that preoperational children cannot think historically, but he also gives us information that reveals how they can think contextually.

Piaget discusses the preoperational child in terms of two cognitive abilities: classification and centration. Classification involves grouping and organizing classes of
objects, and this skill becomes increasingly more sophisticated as the child matures. *Centration* focuses the child on a single aspect or category. For example, if given twenty blocks of different colors, shapes, and sizes, preoperational children can normally only focus on one characteristic at a time. They can group the objects by color, or by shape, or by size, but they are limited in their ability to group the objects based on two criteria (shape/color, shape/size, color/size). An understanding of these concepts and a focus on the cognitive abilities of preoperational children might enable educators to introduce them to historical information in ways that they can comprehend.

According to Lev Vygotsky (1978), social interaction is essential to the development of language and thought. He asserts that social relationships and dialogue elevate levels of understanding. Through this interaction, children are able to achieve higher levels of cognition than they would achieve independently. By participating in interactive group discussions, children experience opportunities to hear and build upon ideas expressed by others; one thought or action triggers another. The term *scaffolding* may be used to describe this collaborative, interactive process of developing ideas. Through scaffolding, children actively construct their understanding of new ideas, concepts or experiences.⁷

For Vygotsky, play is a key aspect of a child's affective and cognitive development. He perceives play as a means of realizing fantasies and (like Piaget) believes that through stages in play, children develop abstract thought and learn to master their own behavior. By pretending, and perhaps behaving in ways that they might not normally, children may also realize their highest cognitive potential. In a 1933 paper,
Vygotsky wrote, "in play it is as though he (the child) were a head taller than himself...it is as though the child were trying to jump above the head of his normal behavior" (Bodrova & Leong, 1996).

Thus, according to Vygotsky play naturally contributes to children's developmental progress. But he also maintains that the developmental progress is fully realized only through the aid of an adult. Adult (including parental) involvement not only enhances the play experience, but it is essential to the highest quality or level of a child's play.

Vygotsky describes a child's development in terms of a Zone of Proximal Development. He defined this concept as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (p. 86). This notion focuses on the child's potential and the adult's role to facilitate the realization of that potential-ideas that are compatible with the child-centered approach advocated by early childhood specialists and based on the idea that self-initiated, self-directed activity is the young child's principal means of learning about the world (Thompson, 1995).

In terms of play, it is through adult facilitation that children are able to make the biggest leaps and achieve their greatest social and cognitive potential. For Vygotsky, while solitary fantasy play is important and should be encouraged, adult participation enriches play in a significant and unique way. By allowing children to direct the play experience, adults empower them to construct their own understanding. And by
becoming involved in their play, adults help children achieve even higher, more
meaningful levels of play.

Two Theories of Aesthetic Development

The theories of Piaget and Vygotsky provide insight about the cognitive
development of human beings-how we develop understanding about the world around us.
The theories of Micheal Parsons (1987) and Abigail Housen (1983; 1991) however, focus
more specifically on aesthetic development-how we develop our understanding about
works of art. Their research has contributed significantly to the field of art education and
museum education.

While Parsons' study involved the use of reproductions and Housen's study
involved original works of art, both researchers used the interview process to obtain
information about how people think about art, and each developed a unique system for
categorizing and analyzing subject responses. Their research methods directed this
study's design; it also incorporated verbal responses as the primary source of information
about how the subjects perceived and interpreted works of art.

The aspect of Parsons' (1987) and Housen's (1983; 1991) theories that was of
most significance to the study however, is their conclusion that aesthetic responses
undergo a developmental process. Over time, one develops the ability to perceive and
derive plausible interpretations of works of art. While it was not the goal of this study to
support or refute this inference, it did prompt the following questions: What are the
factors which contribute to aesthetic development? What is the relationship between
aesthetic development and cognitive development; are they dependent, interdependent, or
corresponding phenomena? How much and in what way is a four-year-old child's ability to understand works of art limited by cognitive abilities? Can the four-year-old child surpass expectations that are based on theories of cognitive and aesthetic development?

In an effort to understand how people of different ages think about works of art, Micheal J. Parsons (1987) conducted a ten-year study involving three hundred interviews performed in classroom settings. The persons interviewed ranged from preschoolers to college professors and were asked to express their thoughts and ideas about five or six paintings. From this study, Parsons concluded that people develop understanding about art through a progressive series of steps: (a) favoritism; (b) beauty and realism; (c) expressiveness; (d) style and form; and (e) autonomy. Parsons analyzed and described these stages in terms of four broad topics; each becomes more meaningful, or perceptible to viewers at certain stages. Color is most significant during stage one; subject matter during stage two; expression during stage three; medium, form and style during stage four; and judgment during stage five.

Abigail Housen (1983) directed her research to gain understanding about museum audiences. Since the '70s, she has conducted a wide range of studies (in and out of the museum galleries) incorporating non-directive, stream-of-consciousness interviews that are taped, transcribed, and coded. Like Parsons, Housen identified five distinct stages of aesthetic development: (a) accountive; (b) constructive; (c) classifying; (d) interpretive; and (e) re-creative. These stages focus on museum visitors of school age and older and loosely resemble Parson's stages. Housen's first stage might be compared to a combination of Parsons' stage one and two. Her second stage could be likened to a
combination of Parsons' second and third stage. Housen's third stage may be compared to stage four of Parson's theory, and a combination of her fourth and fifth is similar to Parsons' fifth stage.

As developmental approaches to aesthetic understanding, Parsons' and Housen's theories both recognize that every viewer brings with him or her a certain perspective and basic assumptions. The more one encounters meaningful aesthetic experiences, the more s/he learns, and the more s/he develops aesthetic understanding. Hence a novice viewer does not perceive and respond to art in the same way as an experienced, "aesthetically mature" viewer. What then, do Parsons' and Housen's theories of aesthetic development suggest about the ability of a young child to perceive and interpret works of art? What are the implications of their theories for educators interested in facilitating four-year-old children's aesthetic experiences with works of art?

Parsons is careful to explain that the stages cannot be closely associated with specific ages, because aesthetic development is determined by both the kinds of art one encounters and the different ways one is encouraged to think about them. However he also maintains that most preschool children operate at the first of his aesthetic stages. Parsons does suggest that age has some affect on where one begins and how one progresses through the stages. A novice adult viewer would probably not begin at the favoritism stage. Housen on the other hand, believes that regardless of age, everyone begins as an accountive viewer, and most adult museum visitors are operating at stage one of aesthetic development.
During Parsons' stage of favoritism, aesthetic response is based primarily on intuitive delight. While most young children do not necessarily judge artworks as "good" or "bad," they openly reveal their preferences (or value) for works that contain their favorite colors or depict images with which they have favorable associations. Since the essential feature of the stage one viewer is egocentrism, young viewers do not distinguish between what they see and others see. They are not aware that others' experiences are different than their own, and they have difficulty seeing other perspectives. Neither do young children distinguish between what is perceived and what is brought to mind. As they relate what they see in an artwork to what they know from experience, the artwork's meaning becomes more about association than anything else. In effect, aesthetic responses for the stage one viewer are based almost entirely upon subjective likes, desires, and experiences (Parsons, 1987).

According to Parsons, personal associations for the young viewer are often based on specific parts of an artwork. If the subject matter is complex or difficult to identify, the young child does not feel compelled to understand the artwork as a whole. After all, the young child is still trying to construct an understanding of what an artwork is. The child might understand that artworks have meaning, but s/he does not necessarily distinguish them from other visual images such as maps or alphabets. Thus, rather than try to make sense of the whole, the young child might be satisfied to identify specific aspects of it with which s/he can associate his own experiences and to which s/he can assign meaning.

With regard to young children's responses to expressive qualities, Parson tells us that the stage one child perceives the expressiveness of artwork based upon the feelings
depicted on the subjects' faces. Interpretations of the feelings, moods or ideas expressed in a painting are determined by their responses to facial expression or body language. Thus according to Parsons, colors (which elicit such powerful responses at this stage) do not possess the same expressive quality as they do at later stages of aesthetic development.

While Housen (1983) does not explicitly address responses by preschool children, she does conclude that most viewers, and certainly most children, operate at Stages I and II. Preschool children are motivated by emotions and by personal associations—a characteristic of first stage viewers. According to Housen then, the young child would be classified as a beginning accountive viewer—a combination of Parsons' stage one and stage two viewer.

Housen's description of the accountive stage is compatible with Parsons' stage two, which is organized around the idea of representation: works of art tell a story and non-representational works are not really meaningful. Based on this notion, Housen recommends that the best, most accessible and interesting, artworks for the novice viewer are those that are expressive, narrative, and have recognizable subject matter. On the other hand Parsons "less sophisticated" stage one viewer appreciates and enjoys non-objective and abstract art so it does not make sense to limit his aesthetic encounters to realistic art.

Parsons describes the young child's ability to recognize aesthetic qualities (literal, formal, and expressive) in works of art, and explains how the young child interprets expressive qualities (moods, feelings and ideas) of an artwork based upon literal qualities.
(the subjects' expressions). Both theories of aesthetic development establish that a child's response to the literal qualities (subject matter, content) and visual or formal qualities (elements and principles) of an artwork is based on personal experience and association.

While they do not address the relationship between cognitive and aesthetic development, Parsons' and Housen's theories imply a correlation between the two. They suggest that aesthetic understanding is dependent more upon the quantity and quality of experiences with works of art, and less upon the age of the viewer. In other words, while aesthetic development might be related to age, it is not dependent upon it. A person will not operate at a more advanced stage of aesthetic development simply by virtue of her/his age; a bright child and an adult may operate at the same level of aesthetic understanding. Yet Parsons and Housen would also agree that the cognitive limitations of the young child might prevent her/him from attaining the highest levels of aesthetic understanding.

Together Parson's and Housen's conclusions have strong implications for our understanding about how and what four-year-old children might think about works of art. What they say about young children most certainly would apply to the average four-year-old child. The theories suggest that for four-year-old children, meaning and interpretation of artworks are grounded in personal association. The children describe and interpret what they see as it relates to their experience. The artworks only have meaning as they relate to the children; they do not have meaning outside personal experience.
Issues of Language and Learning

To this point, I have not specifically addressed how cognitive or aesthetic development might relate to four-year-old children's ability to achieve and express their perceptions and interpretations of works of art through adult and peer interaction. In evaluating young children's responses to art, one must consider their ability to understand visual or non-literal forms of language as well their ability to develop language skills in order to share their ideas with others.

**Issues of Language Development and Acquisition**

All young children face the challenge of trying to communicate their understanding to others. This challenge however, diminishes considerably after the age of three when vocabulary is quite extensive and grammar almost adult-like. By the age of four, talk becomes less self-centered, more collaborative, and more social (Charlesworth, 1996).

Both Piaget and Vygotsky recognize socialization as a means (for Vygotsky, the primary means) by which children develop understanding about the world. Language is a crucial part of that social interaction, hence also to children's cognitive development. Therefore an understanding of certain language concepts may also be essential to an understanding about works of art.

In order to translate visual images into meaningful interpretations, one must be able to comprehend non-literal forms of language. The two primary forms of non-literal language are metaphor and irony (Winner, Levy, Kaplan, & Rosenblatt, 1988). While an understanding of irony may not be critical to the interpretation of artworks, an
understanding of metaphor and analogy are necessary for a full response to the arts (Taunton, 1984). Visual messages are conveyed through symbols, and those symbols might not be interpreted literally. They might not simply designate an object or event, but rather represent or symbolize an abstract idea or concept.

In a 1982 article, “Meaning and Visual Metaphor,” Hermine Feinstein described metaphor as an essential process and product of human thought:

> The power of metaphor lies in its potential to further our understanding of the meaning of the experience, which in turn defines reality. In art and language, metaphor urges us to look beyond the literal, to generate associations and to tap new, different or deeper levels of meaning . . .In this process attributes of one entity are transferred to another by comparison, by substitution, or as a consequence of interaction (p. 45).

According to this conception of metaphor, it is a process by which we all make sense of new experiences. We consciously or unconsciously compare new ideas or phenomena to things we understand from past experience—a notion that is strongly reminiscent of Piaget's concept of assimilation.

Young children may not comprehend meanings expressed through metaphor (Winner et al., 1988), and therefore their ability to derive plausible interpretations of works of art is limited. Yet Piaget tells us that young children naturally assimilate and accommodate new paradigms, associating and comparing familiar experiences with unfamiliar. In effect, they think and speak in metaphors: the child who identifies the dog as "kitty," is communicating her belief that it is like a cat.

Art educators might make an effort to better understand and take advantage of such associations and comparisons—whether implied or explicitly stated. They might seek
ways to more actively facilitate young children's experiences in the art museum, to help them create new paradigms that will foster their perceptions and understanding of artworks. Perhaps by using their metaphors as springboards for understanding the metaphors conveyed in works of art, as Vygotsky suggests, young children will be able to realize their full potential understanding of works of art. After all, as preschool children have more opportunities to experience works of art (to assimilate and accommodate new information about the objects), it seems that they are far more capable of developing deeper understandings about art than was thought possible (Koroscik, 1997).

Preschools like Reggio Emilia and the Smithsonian Early Enrichment Center, which explore complex concepts with preschool children, challenge our preconceptions and expectations about the abilities of preschoolers to understand works of art. Perhaps they are better equipped to understand abstract concepts through visual images than through verbal expression. The point is that relatively little is known about how and what children understand about works of art, and in order to assess their understanding one must be sensitive to their unique means of expression and communication.

Newton (1995) describes an essential connection between language and learning about art. In order for young children to share their ideas about art with others, they must possess the language skills and understand the language concepts necessary to communicate those ideas. These language skills and concepts are learned as the children mature, through social interaction. First, children learn to understand the affective aspects of speech, connotative meanings that are based upon association and personal experience. For example, two children hearing the word *dog* may derive different
connotative meanings: one may associate *dog* with a warm, cuddly companion; the other may think of a growling, ferocious monster. Later, children develop an understanding of the literal aspects, the *denotative* meaning, of language. They learn the generic meaning of *dog*; they understand that *dog* means (or denotes) a four-legged domestic mammal. While the connotative meaning for *dog* is variable and subjective, the denotative meaning is relatively constant and generally agreed upon by mature speakers.

Connotative meaning is not 'inferior' or less valid than denotative meaning. In fact it would seem impossible to completely separate the two: everyone's perception and interpretation involves some level of subjectivity. But preschoolers' limited ability to divorce themselves from personal associations and comprehend denotative meaning presents a special challenge during discussions about works of art. Because they are based on affective, connotative meaning, preschoolers' perceptions and interpretations of works of art often sound meaningless to more mature viewers. Unfortunately when children do not have the tools to adequately express themselves in adult terms, adults seldom take the time to work through and try to understand their connotative expressions. Yet it is likely that young children understand far more than they are able to communicate to adults. Efforts should be made not only to help children acquire language skills and learn language concepts, but to help adults relate to and understand the language of children.

The purpose and design of this study was not to overcome, but work within the parameters of the four-year-old child's language structure. Acknowledging the young child's language tendencies and limitations, the study placed greater responsibility on the
facilitator to decipher the child's perceptions and interpretations. Just as Newton (1989) recommends, the adult facilitator attempted to adapt different language strategies and activities to both help children express their ideas about works of art and help adults understand the ideas being expressed.

**Issues of Learning New Concepts and Ideas About Art**

The study did not focus on how four-year-old children respond independently, but rather how they might derive plausible interpretations from works of art through facilitated discussion. Therefore, it took into account whether or not the museum teacher affected the children's responses and whether or not the children learned new language or ideas relating to works of art. To this end, consideration was given to how young children typically adopt or reject new language and information. The study acknowledged that they might undergo not only the processes of assimilation, accommodation, or scaffolding, but also a process of selection-conscious and/or unconscious. The children might learn and apply new words and information while responding to works of art, or they might not.

Learning may be defined as habit formation. And according to cognitive-field psychology, "habit is fluid, effective action arising through a person operating on the basis of the insights that one possesses" (Bigge & Shermis, p. 204). A person demonstrates habit when s/he responds in a particular way to situations based on an understanding that certain actions produce certain results. The person does not need to think about the response; s/he knows that a situation automatically means or indicates a particular course of action. And only when that situation comes to mean something
different to that person, when it suggests another course of action, will the person alter her/his response to it (Bigge & Shermis).

Considering the unique aspects of museum learning that were addressed in the previous chapter, the study took into account whether or not the children demonstrated a change of habit by adopting new terms or changing the way they approach works of art. According to the above definition of habit, this would only happen if the children were motivated to do so, if new responses made sense or was meaningful to them. Or, to put it in terms expressed by Hein (1998) and Falk and Dierking (2000), such learning could only occur if the experience was appropriate and relevant to the children.

Review of Related Studies

Parsons' (1987) and Housen's (1983) studies contribute to a small body of research that relates to young children's perceptions and interpretations of works of art. In the past three decades, researchers have directed several studies that investigate the ability of young children to recognize the literal, formal, and expressive qualities in reproductions of works of art.

As Taunton and Colbert (1984) summarize, the research in the 1960s and '70s (including Parsons' studies) focused on preference responses. These studies revealed that young children are able to express and explain their preferences in terms of simple, personal criteria. Later studies in the '70s and '80s turned attention to the ability of four- and six-year-old children to perceive subtle aspects of the visual arts. These studies showed that young children are able to sort and group paintings according to style, as well as match paintings to expressive descriptions. According to these studies then,
although four-year-olds may not be able to verbalize their reasons, they can perceive aesthetic qualities such as style and expressiveness. They understand but are unable to demonstrate their understanding.

Taunton and Colbert (1984) also cite studies that contrast these findings. Researchers such as Parsons concluded that due to lack of art experiences, verbal skills, and cognitive ability, young children are not aware of formal structures and style, nor do they understand that an art object itself (not just the subject matter) can convey emotion. Taunton and Colbert point out that these findings do not necessarily mean that with the proper opportunities and guidance, young children cannot learn to perceive these aesthetic qualities. They suggest that further studies be done to clarify this contradiction in research.

Taunton (1984) conducted her own study of four-year-old children at a university day care center. The research involved a selection of painting reproductions and word clues. The word clues were based on the expressive qualities of the reproductions, and the children were faced with the task of guessing which paintings were described by each word clue. Taunton found that the four-year-old children were able to match the word clues and painting reproductions with a fair degree of success, and that there was only a slight difference between the matches for representational and abstract works of art. Only a few of the children (four of thirteen) were able to consistently explain their choices by referring to a particular aspect of the painting. Interestingly, in some cases, explanations for incorrect matches were understandable and rational. This finding alone has some powerful implications for my own study. It suggests, for example, that while a
four-year-old child's interpretation of a work of art may sound meaningless and completely idiosyncratic to the adult viewer, the child may have a reasonable explanation about how or why s/he derived that interpretation. One must consider this possibility when speaking of a plausible interpretation of a work of art for the four-year-old child.

Schiller (1996) based a more recent study on Parsons' developmental theory. The focus of the study was "to demonstrate that young children enjoy talking about art and do so quite willingly when provided with the opportunity to talk and discuss with peers and adults" (p. 32). The setting was a preschool classroom and there were twelve subjects ranging in age from three to five. Teachers engaged the subjects in many conversations and small group discussions. They recorded and analyzed the children's responses according to Parsons' stages, and determined that by the end of the study, although it was not their intent to move children through the stages at an advanced rate, some of the children were inclined to think at the stage-two level.

Newton (1989) and Cunliffe (1998) conducted studies that examined multiple aspects of the aesthetic experience. As Newton pointed out in her research, many of the studies relating to children's aesthetic responses use a single approach that yields little information. In order to measure as many aspects of aesthetic response as possible, she designed a study that incorporated verbal measures (a five point semantic differential instrument) and non-verbal measures (looking time and rating time), and examined three different factors: evaluative; uncertainty/arousal; and response times.

While these studies with reproductions do provide insight about how young children look at and think about art, they do not tell us much about how they approach
original works of art. Responding to works of art in a museum setting is a unique experience, and one should not directly apply what is learned through studies with reproductions to our understanding about responses to original works of art.

In a paper presented by Cunliffe (1998), he describes one study involving an original work of art. The study explored how certain interventions contributed to students' perceptions and interpretations of art. Specifically, Cunliffe looked at how the use of a video about a sculptor and her work, a semantic differential instrument, and a semi-structured interview influenced students' responses to one of the sculptor's works. Although this study dealt with responses to an original work of art, it did not involve preschool-age children, nor did it take place in the museum environment.

In fact, few studies exist relating to young children's responses to original works of art. Housen's studies (which led to her theory of aesthetic development) investigated experiences with original works in the museum, but did not include responses by preschoolers. Likewise, a study conducted by Carol Jeffers (1999) in the art museum/gallery setting did not include children younger than five years of age.

Jeffers' study involved nineteen children aged five to thirteen. Each participant acted as a "tour guide" for one of seventeen pre- and in-service elementary teachers. Although the children were all older than four-years-old, the study provided valuable information about the way children of different ages perceive the museum and the museum experience. Jeffers' observed that when empowered to guide an adult partner, the study participants were able to construct meanings about works of art.
An earlier study involving children and adult partners was conducted in 1987 at the Queensland Art Gallery in Australia under the direction of Barbara Piscitelli (1988). "Share the Joy!" was a twelve-week study of thirty families and a group of tutors, or facilitators. The study group was divided into smaller groups of five to nine people, which participated in a parent orientation and several half-hour gallery visits. The tutors planned the tour, selecting a small number of artworks for discussion and working as partners with parents to elicit dialog among the children.

Piscitelli's study revealed a great deal about the challenges of facilitating a group of young children and their parents in the gallery setting. The tutors reported that it was difficult to determine if the tour should be child-centered or work-centered; though they felt compelled to follow the children's personal preferences, they also hoped to informally introduce information and concepts relating to the objects. The study also provided insight about the way young children interact in a group setting. The tutors frequently felt a loss of group cohesion with the younger children; groups of four- and five-year-old children were capable of sustaining a group relationship.

With regard to the children's responses to the works of art, Piscitelli observed that they often began by naming the central feature. Then they used seek and find strategies to identify smaller details and take a visual inventory of the work. She further observed that the children's responses were playful and creative when they did not rely on verbal expression; they enjoyed pretending, making noises and mimicking gestures. However, "the props, prompts, and other strategies employed by the tutors added to the children's
available repertoire of options for responding to art but were deemed secondary and not primary motivators of children's art appreciation” (p. 53).

Piscitelli concluded that the young children were indeed capable of discussing and exploring original works of art, and that they and their parents developed a "repertoire of language and behaviours for responding to the arts" (p. 55). However, the study did not involve an analysis of the children's responses to ascertain whether or not they demonstrated some level of understanding about the works of art-what the objects were or what they represented.

Like Schiller (nearly ten years later), Piscitelli added another dimension to Parsons' study by examining the effect of group discussions on young children's responses to works of art. And by incorporating the use of original works of art, she also contributed to Housen's research by exploring the effect of adult facilitation on the children's responses to original works of art. Together, these studies, along with those by Taunton (1984), Newton (1989), Cunliffe (1998) and Jeffers (1999), represent a first step in understanding the potential of four-year-old children to derive and communicate meaning about original works of art.
CHAPTER III

METHODOLOGY

A pilot study involving five children aged four, from a local preschool, was conducted to determine the structure of the research design (see appendix). The preschoolers participated in three forty-five minute visits to the Dallas Museum of Art, which were led by the researcher. While on some level it represented a first attempt to examine if and how young children are able to derive meaning from works of art, the primary objective was to test the size of the group, the length of the museum visit, and possible approaches and activities. Further, the study provided some basic insights about the group's response to the museum environment, understanding about the nature of art, and its preference for certain types of art.

The pilot study provided evidence that the four-year-old children could make insightful observations and derive plausible interpretations of works of art. However, those observations and interpretations often seemed disconnected, making it a challenge to follow a collective train of thought. The facilitator/researcher questioned whether certain questioning strategies or activities might promote more cohesive, meaningful discussions. During the actual study, the museum teacher, or person facilitating the children's museum visits, should consider ways to engage the children with works of art and keep them involved in a group discussion to promote deeper levels of understanding.
A Description of the Study Goals and Design

This study was designed to examine how four-year-old children respond to and interpret works of art in the art museum. The purpose of the study was to determine if and how four-year-old children might be able to perceive and derive plausible interpretations of works of art in an art museum, and it explored how four-year-old children might expand their initial sensorial responses and expressions of preference to arrive at plausible interpretations.

The study was conducted at the Dallas Museum of Art, located in the heart of the downtown, because of its large, heterogeneous permanent collection. The Developmental Learning Center at First United Methodist Church of Dallas was selected as the cooperating institution because it was within walking distance of the museum. Following a consultation with the Director of the Learning Center, Jennie R. Hernandez, the Center's entire four-year-old class was selected to participate in the study. In this way, not only was the study group fully representative of the entire class, but the same opportunities were offered to all of the children. According to current enrollment and registration, the study group numbered fifteen: a mixed group of four-year-old boys and girls of different ethnic backgrounds.

The study participants attended six weekly visits to the Dallas Museum of Art over a one and a half month period. Prior to the study, parents of each participating child was asked to complete a short questionnaire relating to their child's previous art and museum experiences. The children were organized into groups of five, and the groups took turns visiting the Dallas Museum of Art. During the museum visits, each group was
accompanied by one of two museum teachers who acted as facilitators, the researcher, and a staff member from the Developmental Learning Center. The visits lasted approximately forty-five to sixty minutes, and consisted of gallery activities (hands-on activities, role-play, storytelling) and group discussions (child-directed inquiries and/or explorations).

The Study Subjects: A General Profile

The children who participated in this study were students at the Developmental Learning Center at First United Methodist Church of Dallas; the majority of them (9 of the 16) had attended the Center for at least 2 1/2 years. Per the classroom teacher, most of the children came from middle to upper-middle class families. Fourteen of the children were Caucasian and two were African-American. The subjects were four years old when the study began with the exception of one child (in Group B) who turned four near the conclusion of the six-week period.

The girl to boy ratio in each group was as follows: Group A, 4:2; Group B, 2:3; and Group C, 3:2. In spite of a few absences, all the children visited the museum at least four times; half of the entire study group visited all six times. In order to protect their identities, the names of the children have been changed.

The Museum Teachers: A General Profile

The identities of the two museum teachers (or facilitators) who participated in this study are not disclosed in this paper, and when necessary they are referred to as Ms. Sutton and Ms. Connors. Both of the museum teachers were graduate students in the Department of Art Education at the University of North Texas, and interns at the Dallas
Museum of Art. They were selected for the study for their knowledge of the collection at the Dallas Museum of Art, as well as their professional experience in museum education and early childhood education. Each possessed a strong background in art history and was proficient in working with young children. Sutton also worked with three-year-olds at a Dallas area preschool.

Sutton and Connors each led three visits with Group A, Connors led one visit by Group B, and Sutton led all of Group C's visits. The differences in the museum teachers' personalities and approaches did produce different responses among the children in the galleries. These differences will be addressed in Chapters IV and V in the context of the study findings and suggested gallery approaches.

Both of the museum teachers were encouraged to let the children direct their collective and personal experiences in the museum, taking advantage of opportunities for learning as they present themselves and making connections as they become appropriate and relevant. However, based on observations from the pilot study, the museum teachers were advised to vary their approaches somewhat with each group. They were encouraged to assume more passive or more active roles throughout the study, depending upon their informal assessments of group personalities, abilities, moods, and attitudes. They might have, for example, decided to use a passive, completely child-directed approach with a group of younger four-year-olds that have a shorter attention span. If however that same group appeared very controlled and intensely interested one day, then they might alter their approach to be more directed and focused. In this way, the researcher was able to
assess if and how the type and quantity of the museum teachers' involvement affected the quality of the children's responses.

Through facilitated, inquiry-based discussions and child-directed explorations, the museum teachers tried to find opportunities for the children to:

- Learn *From* the Work of Art: The children might develop visual literacy and skills to respond to aesthetic qualities in works of art. They might learn to: describe the subject matter and content of the work of art (literal qualities); identify and discuss the elements and the principles of art (visual or formal qualities); recognize that artworks convey moods, feelings and ideas not just through the subject's facial expression, but through color, shape, and line; express how what they see makes them feel.

- Learn *Through* the Work of Art: Young children might learn: to relate their observations, feelings, and ideas to other experiences and knowledge; that there are many ways to respond to works of art; to acknowledge others' interpretations of artworks; to relate their observations, feelings, and ideas to those expressed by others; that one can learn about oneself and others through works of art.

- Learn *About* the Work of Art: Young children might learn about the context in which art works were created. They might learn about art history. They might learn that: art serves many purposes; art is a form of expression and communication (artworks tell stories); artworks are products of a person, culture, time, and place; artists make choices and face challenges when they create their artwork (this understanding is complemented through studio activities). They might also learn how to compare and
contrast works of art, and about the role of art museums, curators, and art historians.

They might learn to think contextually about works of art, incorporating art historical facts and information in their understanding.

To these ends, during each visit, the museum teachers each incorporated one or more of the following activities to help the children look at, think about, and discuss works of art: (a) child-initiated and child-directed inquiries and explorations; (b) interactive activities such as role-play; (c) hands-on activities such as drawing; and (d) storytelling activities. The children were also encouraged to communicate their ideas in a variety of ways such as through storytelling, role-playing, or drawing.

The researcher prepared for the museum teachers a binder of suggested activities that were appropriate for engaging the children with certain types of art. The activities were filed in the binder according to their placement in the galleries and could be used by the museum teachers to plan a "point of departure" while the children looked at and drew the artworks.

The binder contained art historical information, so that art historical concepts might be introduced to the children when it was appropriate. As they introduced art historical concepts and information, the museum teachers were encouraged to help the children make connections that were meaningful to them.

During the museum visits, the museum teachers did not seek or try to direct the children to specific (or "correct") interpretations of works of art. Rather they considered how each child brought a unique background, personality, and set of experiences that would color her/his reaction to and interpretation of works of art. Thus the museum
teachers not only expected, but also encouraged different responses. They invited the children to relate the works to their own personal experiences, and helped them to use those personal connections to derive plausible interpretations.

The goal of this study was not to determine whether or not the children are able to arrive at a single, "correct" interpretation of a work of art. Rather, the study focused on the process, the way the children arrived at and explained their interpretations. Therefore, it did not involve an "official" pre-test or post-test. Instead, comparisons were made between children's initial museum visits and later sessions to note any changes in how the children approached, thought about, interpreted, and discussed the works of art.

In order to make those comparisons over the course of the study, the museum teachers should incorporate at least one "standard" inquiry for use throughout the study. Therefore they were encouraged to ask two questions (which could have taken many forms) about as many artworks as possible. One question invited the children to project themselves into the works of art. The museum teacher might ask: *If you were standing in that painting, how would you feel?* or, *If you could stand anywhere in this painting, where would you stand and why?* A second question invited the children to empathize with, project themselves into the place of the artist. The museum teacher might inquire: *Pretend that you are the artist; How did you feel when you made this work of art?* or *If you could ask the artist one question about this work of art, what would you ask?* Should these questions be asked repeatedly, the children's perceptions and understanding about the works of art might be more fully analyzed to determine if their ideas changed over time.
Collection of Study Data

The following is a list of means by which information was collected during the study.

- **Audio and Video Tapes of Gallery Discussions and Activities:** The museum sessions were recorded on audiocassettes and videotapes. The tapes were transcribed, and analyzed. The children's responses and interpretations were reviewed for certain evidence-through word or action-of their ability to perceive and derive plausible interpretations of works of art. The evidence was determined by the content of the analysis (described below).

- **Children's Sketchbooks:** Each child had a sketchbook to draw in the galleries. The sketchbooks were distributed in the galleries at the museum teachers' discretion during the visits and collected, analyzed and retained by the researcher after the visit was over.

- **Museum Teacher's Journal:** The museum teachers kept a journal of notes, observations, and comments relating to their experiences with the children in the galleries. The researcher occasionally presented the museum teachers with questions for reflection and response in their journals. The journals were divided into four sections to facilitate analysis: (a) general comments; (b) Group I-Tuesday museum visits; (c) Group II-Wednesday museum visits; and (d) Group III-Thursday museum visits.

- **Audio Taped Interviews of Museum Teachers:** The museum teachers and researcher were in constant communication regarding the content of and methods used during
museum visits. However, the researcher also conducted informal interviews of the museum teachers as often as possible after the visits. The museum teachers were invited to share their observations (general or specific) about the museum visits—what went well, what did not go well, what they would change, and what they learned.

- Communication Log: Following each session, a note was sent home to the parents of all participating subjects. The note briefly described the museum visit, encouraged parents to discuss the visit with their children, and to share their comments, observations, and anecdotes with the researcher via a communications sheet, phone call or email. A similar note was issued to the children's classroom teacher. All written and verbal communication between the researcher, parents, and teachers was recorded and kept by the researcher in a "Communication Log" containing the following categories: (a) notes to/from parents; (b) notes to/from classroom teachers, and (c) documentation of phone calls with parents and classroom teachers.

- Audio Taped Interview of Classroom Teacher: As soon as possible after the study was completed, the researcher conducted an informal interview of the Classroom Teacher. The teacher was invited to share her observations (general and specific) about the museum visits—what went well, what did not go well, what she would change, and what she learned. In addition, she was asked to contribute her ideas about what art museums should offer in the way of programming and services for preschool children.
Analysis of Data

Qualitative measures were used to analyze the data that was collected from the six sources cited and explained above. The content for the analysis of study findings was based on the ideas expressed by Harry S. Broudy and Thomas Munro. The following is a summary of these ideas.

Broudy (1987) identifies the skills of aesthetic perception as:

- Perceiving the vividness and intensity of the *sensory* properties in the work of art. These features convey the affective qualities of the object by means of colors, gestures, shapes, textures, and so on.
- Perceiving the *formal* qualities of the object, its design or composition, the arrangements that provide unity in variety through balance, repetition, rhythm, contrast, and so on.
- Becoming familiar with the *technical* merits of the object, the skill with which it has been carried out.
- Perceiving the *expressive* significance of the object, its import or message as aesthetically expressed.

Thomas Munro (1956) describes different types of abilities or skills related to viewing works of art:

- The ability to experience *direct sensory* perception—This involves looking at the works of art in terms of their directly visible qualities and arrangements.
- The ability to use one's *imagination*—This involves empathy or projection of oneself into the work or the artist's place.
• The ability to apply reason in order to infer what and why something is happening in the work of art—This involves an understanding of abstract concepts and relationships, and linking ideas to new relationships.

• The ability to apply one's knowledge of art history and theory—This involves an application of what one knows about art to what is perceived in the work of art.

Together, these skills related to perception and interpretation (as summarized by Broudy and Munro) provided a framework for identifying evidence of the four-year-old children's understanding about works of art in the museum. Understanding this framework in the context of Piaget's and Vygotsky's theories of cognitive development, the following criteria was established for investigating four-year-old children's perceptions and interpretations of art.

Responses from the four-year-old subjects were analyzed for evidence of the following:

• Interpretations based on internal clues in the work: This was demonstrated when a child gave attention to the visual and/or expressive qualities of an artwork (the ideas, moods, and feelings). Questions: When a child talked about the expressive qualities of an artwork, was her/his comments based on what s/he could identify in the artwork? Was s/he able to explain (defend) her/his comments and interpretation? Was her/his interpretation based solely on the subject's expression, or was s/he able to explain the moods, feelings, or ideas conveyed through line, color, and shape?

• Interpretations informed by external clues in the work: This was demonstrated when a child integrated facts and information about the work, incorporated what s/he has
learned about the work (e.g. through stories) into her/his interpretation of the work.

Questions: When a child offered an interpretation, was s/he applying some facts or information that s/he learned about the work?

When evidence of the above was found, the responses were analyzed further to understand which of the following processes (social and/or cognitive tools) seemed to contribute to the children's understanding and interpretations of the works of art:

- **Language acquisition:** This was demonstrated when a child learned or experimented with new words. Questions: Did a child demonstrate understanding of a new word or concept?

- **Classification or Association and Comparison:** This was demonstrated when a child grouped or organized certain artworks based on one or more characteristics. Questions: When classification occurred, was a child able to move beyond Piaget's notion of *centration* to consider more than one aspect of an artwork at a time?

- **Scaffolding:** This was demonstrated when a child expressed ideas that build upon previous ideas communicated either by her/himself or another person. Scaffolding occurred over time or during a single session. Questions: When scaffolding occurred, was a child demonstrating understanding of another's perspective? Was a child developing her/his understanding about a certain idea or concept? Scaffolding addressed the question posed earlier about whether or not a child's interpretation can be affected by a facilitator or by peers.

- **Projection (role-play or empathy):** This was demonstrated when a child tried to relate to someone else's experiences or feelings. This was also demonstrated when a child
used her/his imagination to transport her/himself into a work of art. Questions: Did a child relate to the ideas or experiences expressed by another person in the group? Was a child able to role-play and assume the thoughts or feelings of a person in an artwork? Did a child project her/himself into a work of art to imagine what it was like to be a part of that work?

Ultimately, the goal of the study analysis was to determine whether or not the four-year-old children were able to derive and communicate plausible interpretations of works of art.
CHAPTER IV
RESULTS AND DISCUSSION

The theories of Parsons and Housen help to define some of the expected responses of four-year-old children to works of art. Piaget and Vygotsky provide a framework for understanding some of the expected behavior of four-year-old children, as well as the cognitive tools-the potential means by which they can make meaning of visual images. The study findings were analyzed for evidence of four-year-old children going beyond the usual, expected responses and using their cognitive and social abilities to derive plausible interpretations (as defined by Munro and Broudy) based on the internal and external clues of a work of art.

The first three sections address general observations about the children and their responses to works of art: the first dealing with group personalities, the second concerning the children's preconceived notions about concepts related to works of art in a museum, and the third relating to some of the cognitive or behavioral (social) tendencies among the children during their responses to works of art. These tendencies may be seen as either challenging or contributing to the children's ability to derive and communicate plausible interpretations of works of art. In light of these general observations and conclusions, which established a framework for understanding and discussing the study results, the final sections of this chapter submit evidence of the children's ability to derive
and express plausible interpretations or works of art based on internal and/or external
cues.

General Observations Related to the Study Group Dynamics

Of course, each group possessed its own set of personalities, and some children
were more vocal than others. While in general all of the study participants made
contributions to the discussions, four of the sixteen were relatively quiet-three in one
group, one in another. This may be due to any number of factors: perhaps they were just
shy, or perhaps as might have been the case with the first group, the more vocal members
dominated the conversations. Whatever the reason, it should be noted that when all of
the children did not participate in the group dialog, conclusive statements were not drawn
about the group(s) as a whole.

The group dynamic changed when a member from another group joined it. For
example, when talkative Teresa and Micheal participated in a visit with the first group,
the dialog seemed more equitable. While Jackie, Megan and Courtney usually dominated
the gallery discussions, they succumbed to more involvement from and seemed more
willing to listen to other members of the group when Teresa and Micheal were present.
The result was a more meaningful exchange among all members of the group.

The Children's Understanding of Concepts Related to Art in a Museum

Before examining children's interpretations of works of art, one should understand
their basic preconceptions and the language they use to refer to art, artists, and museums.
Therefore, the study researched evidence that provided insight regarding the children's
basic notions about works of art, the people who created them, and the institutions that
care for and exhibit them. This evidence was gleaned primarily from the children's
gallery discussions about a variety of artworks (painting, sculpture, and decorative arts)
relating to the artists' choices, creative process, and reproductions versus original works
of art. Sometimes the museum teacher initiated these discussions through a series of
questions. Other times, the children began the dialog by expressing interest in a particular
work of art.

The children's comments about works of art were analyzed for some
understanding about their underlying preconceptions about the concepts of art, artist, and
museum. This analysis included an investigation of the words the children did or did not
use with relation to these concepts. The analysis also took into account when and how the
museum teachers addressed the concepts of art, artist, and museum; whether or not they
offered definitions or explanations of the concepts, and what vocabulary they used to
discuss these and related concepts.

*The Museum Teachers: Two Different Approaches to Art-Related Concepts*

Before the study began, the museum teachers were given a written list of study
objectives as a framework to structure the children's museum visits. These objectives
included: helping the children understand the differences between reproductions and
original works of art; giving the children vocabulary to express their ideas; and
introducing art historical terms and concepts. The museum teachers were encouraged-but
not mandated-to initiate dialogues with the children about the artists, to invite the
children to empathize with and project themselves into the place of the artist, to explore
the idea of artists' choices. However the researcher did not specify topics to be discussed
nor vocabulary to be used. Rather the museum teachers could try to achieve the study objectives whenever and however they chose or felt it appropriate.

The museum teachers adopted different approaches during their visits with the children. Connors was more focused on the primary goal of helping the children derive meaning from the artworks, and her dialogs with the children were more teacher-directed. She frequently tried to lead them toward certain observations or conclusions about the artworks. Yet Connors did not make a deliberate effort to introduce certain words or to explore the children's understanding of *art, artist, and museum.*

Sutton on the other hand, made deliberate attempts to introduce certain vocabulary and discern what the children understood about these concepts. She often used the term *art* to refer to objects at the museum, and at some point during their visits, all of the children heard Sutton define or explain the term *artist.* Under Sutton's lead, all but two of the children had an opportunity to role-play as the artist. Every child also heard Sutton define and compare *sculpture and painting* on at least one occasion. In addition, Sutton asked questions that prompted the children to consider what the museum was.

While Connors did not make a point of identifying, defining or explaining certain concepts and vocabulary, like Sutton she frequently invited the children to associate themselves and their personal experiences to the artists and their creative choices. By consistently referring to the artists' creative decisions, and by asking the children how the artist might have thought or felt, both museum teachers made it possible to evaluate the children's understanding of *artist and art* (or work of art).
Understanding the Concepts of "Art" and "Artist"

During several of the discussions, the children understood artist to refer to a person who made an object at the art museum—the person who painted a certain picture or made a particular sculpture. "Do you remember what an artist does?" the museum teacher asked one day. "They paint," responded two of the children. Others added: "They can draw a picture." "They can make a pretty picture." Then, connecting the word artist to the creator of a specific object in the museum, Jackie pointed to a Monet painting and exclaimed, "Like that!" At another visit, when directly asked what we call the person who makes an object in an art museum, Courtney did not hesitate to respond, "It's an artist!"

Usually, the children's understandings about art and artist—and the relationship between the two—were not as explicit. While clearly, the children understood the term artist to refer to the maker of an object at the art museum, that understanding was imbedded, presupposed or implied, in their responses. When the children did use the word artist, it was usually in connection with a specific work of art. For example, when one group stopped to look at Claes Oldenburg's enormous sculpture, Stake Hitch (1983), the museum teacher began the discussion by identifying the sculpture as "a piece of art." Micheal specified that it was a "statue," and brought up the term artist to refer to the person who "stuck it on the floor."

During another discussion about how the Stake Hitch was made, Erin and Grant did use the term artist to identify the person who made it. However, they revealed more about their understanding of the relationship between the artist and his work when they
speculated about how the artist (Oldenburg) might have climbed up to paint her/his enormous sculpture (*Stake Hitch*). Like Micheal, Erin and Grant responded in ways that suggested they understood the artwork to be the product of a creative process.

Standing in front of Oldenburg’s *Stake Hitch* during a first visit, the museum teacher asked what an artist was. Erin did not offer a definition, but immediately acknowledged the artist's need to "be real high up" when creating the work. This observation launched the group into a discussion about artistic process, about how the work was made. The museum teacher asked them to imagine the artist and what s/he might have done. In response to the museum teacher, the children stated that the artist needed a ladder, climbed up the ladder, painted with a bucket and a paintbrush, and climbed down (and perhaps fell off) the ladder.

During this same visit, while discussing how the artist painted the work, Grant and Erin disagreed about which part of the sculpture s/he painted first: Grant maintained that the spike was painted first, while Erin thought the rope was painted first. More importantly however, they defended their opinions based on what they thought was easiest from a logistical standpoint. Grant believed it made sense to work around the sculpture from inside to outside, bottom to top. Erin observed that it would be easier to start on the outside and work toward the center of the sculpture.

On the museum teacher's prompting, the children also speculated about the reason why the artwork was so big. They agreed that the artist made it large so that everyone could see it. They could not agree however, on the gender of the artist. Some considered the artist a male, others a female. The museum teacher did not volunteer the correct
information, but rather let the children continue their speculations about how and by whom the work was created.

Such associations with the artist often occurred without the museum teacher's prompting. For example, Megan also explored artistic process while in the Contemporary Galleries. As she and Connors wondered about how her favorite painting was made, Megan began to identify with the artist's choices. On another occasion, in an attempt to help the children identify snow in Frederic Edwin Church's *The Icebergs* (1861), The museum teacher asked why there was so much white in the painting. Grant responded, "Because they just wanted it that way." Grant's response demonstrated his understanding that artists make aesthetic choices. Picking up on his lead, the museum teacher and other children in the group began to discuss whether or not the artist painted what he actually saw or what he imagined. Erin stated that perhaps the subject matter of the painting was a place that no longer existed. They also talked briefly about where they get their ideas from when they make art. One child explained that she thinks about it (the subject of her painting) and paints it the way she wants to.\(^{10}\)

Even during their first visits, Megan and Grant communicated their understanding that artworks are created by artists who make certain aesthetic choices. Other children shared this understanding. During his first visit, the museum teacher asked Micheal why he thought someone made the *Stake Hitch*. He said, "So it can be beautiful."

Members of other groups implied this understanding in their comments. One day in the Contemporary Galleries, the museum teacher pushed the children to consider why an artist would choose to create a non-objective painting, "to paint a picture that didn't
have anything in it." Courtney was quite frank in her defense of the artist: "Because they thought it would be pretty." During another visit, Teresa indirectly acknowledged that a Classical sculpture was a product of creative choices when, curious about its broken arm, she asked, if it was "made like that." Then she speculated that, "maybe they made him with a head and that he was broken." By inquiring about why or how something was made, or by offering possible answers to these questions, the children were on some level identifying with the artist's decision-making creative process.

Though the children generally used the term artist in the context of a certain work of art, their responses sometimes demonstrated a broader understanding of the word. Some of the children understood artist to refer to the creator of any object at the art museum. One day, when expressing his dislike for the art exhibited in the museum, young Chad identified the objects as "artists' art." Teresa also used artist as a more generic term, applying it not only to the creator of a specific work of art, but also to the creators of all the objects at the museum. Earlier during their visit, the museum teacher asked what an artist was, and one child responded that, "He paints the picture." The museum teacher added that it was the person who draws the picture or makes the sculpture. Their visit led them to a discussion about the Impressionist style. Comparing two of the works in the collection, Teresa tried to explain how some artworks at the museum are different, and how different artists make different choices: "Some artists make different ways like other pictures . . . All those things together in art museums, they don't look the same as other things."
As evidenced from this discussion, Teresa understood that objects displayed at the art museum were not created by one person but by many different artists. In fact, the museum teacher posed the question during their first visit: Do you think (one) person made all the things in the museum? Both Teresa and Michael said that they thought different people made different works of art. At a later visit, Teresa offered a long explanation about how different artists purposely made different kinds of art because "they don't want everything looking the same." Once again Teresa also recognized the artworks were the produce of deliberate aesthetic choices.

On one occasion however, some of the children were less inclined to accept the term artist to refer to the creators of all objects in the art museum. The group was visiting a special exhibition featuring house-wares (plates, cups, etc.) from the last five decades. While the children had no problem accepting the word artist to refer to paintings, they were reluctant to relate the term to the works of decorative art, or craft. For example, Teresa used the words "cup man" to name the person who made a cup. Anna renamed the cup man "the maker." When asked whether or not the maker could also be called the artist, the children responded "no." A few moments later the museum teacher pushed for an affirmative response to that question: "What would you call somebody that would make a cup?" Again, the response from Megan: "A cup maker." Perhaps the children (like some adults) did not consider the cup a work of art and therefore did not consider its creator an artist.

Throughout the study there was evidence that the children also accepted a broader definition of artist that included anyone—even themselves—who created art. The term artist
was not limited to creators of art exhibited in the museum. This was to some degree implied when the children said that artists "paint," "can draw," "can make a pretty picture." While they accepted museum art as the products of artists, the children never specified that artists are only those who paint or draw pictures in museums.

During her second visit with Connors in the Contemporary Galleries, Courtney demonstrated how easily some young children identify themselves as artists. In response to a question about why an artist would paint a certain way, Courtney excitedly announced that she was an artist. At their next visit, the museum teacher asked the children whether or not they were artists when they sat down to draw, and the children unanimously responded "yes."

When a child identified her/himself as an artist, it was easy to transition into the role of the artist of an artwork at the museum. Following Courtney's announcement that she was an artist, Connors asked her why she would paint a picture that did not depict any objects (trees, houses, people, etc.). In effect, the museum teacher invited the child to put herself as artist, into another artist's shoes and consider another person's creative choices. Courtney accepted the invitation and quickly responded: "Because they thought it would be pretty." Although this dialog ended abruptly, Courtney's response communicated the child's understanding of artists' aesthetic choices-choices that might involve a desire to do more than depict certain subject matter, a desire to create something that is "pretty" or aesthetically pleasing.

Some children did not openly declare themselves as artists, nor even use the word artist. Yet in the course of their discussions, there was evidence that all of the children
were able to project themselves into the artist's place, thereby demonstrating their understanding of the term. Through role-play and storytelling, the children engaged in discussions about what it might have been like to be the creator of a work of art.

Most often, as suggested above, role-play occurred spontaneously. But on one occasion, the museum teacher introduced a role-playing game. She led the children to Claude Monet's painting entitled, *The Siene at Lavacourt* (1880) and told them that she wanted them to pretend to be the artist that made the picture. The level of involvement and thinking attained during this role-playing game was quite unexpected.

The museum teacher began the game by asking, "What would be the first thing you (as the artist) would have to think about if you were making this picture?" Following a typical response in which the children began to identify details they could see in the painting, the teacher redirected the discussion to consider process: "What would you use to make the picture? How do you think the artist made it?" One child began to move her hand up and down as if she were painting with an imaginary paintbrush. The other children quickly followed suit, and the museum teacher took advantage of this spontaneous group response by "personalizing" her questions to each child.

The museum teacher identified the artist's full name (Claude Monet) and pretended to be a newspaper reporter interviewing the artist. Holding their imaginary phones to their ears, each of the children had an opportunity to respond to the reporter's question—a question that prompted them to consider the emotive qualities of the work of art. "How did you feel when you painted this picture Claude Courtney?" the museum teacher asked. "I felt happy," answered Claude Courtney. Claude Micheal spoke in the
artist's voice, "Oh, that's beautiful, and I like it." Others shared Micheal's sentiment by adding that they felt happy because they liked the subject matter and enjoyed painting it. During this activity, all of the children demonstrated their ability to discuss a work of art through the eyes of its creator, and this made a lasting impression on the children.

The children remembered the name Claude Monet two weeks later when they were led by the museum teacher to the American Galleries to play another game. Before the museum teacher even began the activity, Jackie recalled the previous role-play game: "I remember when we were painting something, when we were Claude." "Yes," added Megan, "Claude Monet."

The museum teacher continued the group's visit with another type of role-play activity. She chose to discuss a landscape work by Alexander Hogue entitled Drought Stricken Area (1934). This time she assumed the role of the artist (whose name she never disclosed), and challenged the children to guess which of the paintings in the gallery was hers (his). The children approached the new role-playing activity with the same enthusiasm as with the Monet painting, speculating about the identity of the museum teacher's (the artist's) painting while she spoke in the first person about the subject matter and style of her work.

Understanding Three-Dimensional Objects and the Concept of "Sculpture"

The activities above provided evidence that all of the children in the three groups could easily identify with and role-play as a master painter. However, the children were not given the same opportunities to assume the role of a craftsman or sculptor. In fact, the
number of exchanges in front of sculptures was limited compared to discussions about other works of art.

The museum teacher tried once to engage the children in role-play with a decorative arts object. In the special exhibition, she indirectly challenged the children's reluctance to call a cup maker or a plate maker an artist. "How could you make it more pretty? What would you do to make it more pretty?" she asked when Anna expressed her dislike for one of the plates. "I'd paint it more with more colors," replied the child. In effect, Anna accepted the museum teacher's invitation to take the place of the ceramist and consider alternative aesthetic choices. The response was brief however, and as with conversations about sculpture, it did not elicit the level of enthusiasm or depth of thought involving paintings.

Throughout the study, both museum teachers used the terms art and work of art interchangeably to identify all types of objects in the museum. One of them explained the difference between a sculpture and painting with all of the groups while in front of the Oldenburg piece: a sculpture is "something that you can go all the way around...a painting is flat and you can't walk all around it." All of the children heard her use or explain the term at least once during subsequent visits. They seemed to accept that a sculpture (like a painting, but unlike a cup) is a work of art created by some artist. They could also readily identify whether an artwork was a painting or a sculpture. Yet the children did not seem to incorporate the museum teacher's vocabulary or definitions into their responses.
As noted earlier in this chapter, the children were disinclined to assimilate even the term *sculpture*. Though they accepted the museum teachers' use of the word as a synonym for *statue*, all three groups preferred to use the latter when referring to three-dimensional works of art. For example, when asked if a work of art was a *sculpture*, Grant repeated the museum teacher's use of the word by saying that it was "like a sculpture." Martin on the other hand completely rejected the word when he responded immediately after Grant that it was "a statue!" During a later visit, after the children identified another *statue*, the museum teacher probed them for another word to describe it did, but they did not come up with the word *sculpture*. And when invited to explore the difference between the Oldenburg sculpture and a painting, the children compared only their size and subject matter, not their form.

The other two groups responded in a similar way to the museum teacher's repeated use and explanation of the term. They did not assimilate the word *sculpture* but instead used the word *statue* to refer to three-dimensional works. Periodically they would also repeat the museum teacher's use of the term, but they quickly reverted back to using *statue*. Teresa did bring up the term *sculpture* once on her own without the museum teacher's prompting, and Erin brought it up twice, but in two of the three cases, the children immediately reverted back to using the preferred word *statue*.

The children in all three groups were frequently drawn to and pointed out "statues" in the galleries. But with a few exceptions, once in front of the sculptures the discussions were usually limited to the identification of subject matter (the person or object that the sculpture is supposed to represent) or to the condition of the object.
(whether or not was broken). Therefore, these discussions did not produce the same level of thinking and meaningful interpretation as those involving paintings.

The nature of the medium may itself have presented a challenge to the children. Sculptures naturally evoke a different kind of response than do two-dimensional works. While the more tangible qualities of clay or stone may have been more aesthetically appealing or interesting, the narrative quality of paintings made them more accessible to meaningful interpretation by the children. Their more limited experiences with three-dimensional objects may have also contributed to the lack of meaningful responses. As with many preschool children, their art experiences probably centered around activities involving the production of two-dimensional artworks such as drawing, coloring, cut and paste, or painting.

While none of the children in the study adopted the museum teachers' use of the term sculpture, some of the discussions did demonstrate an understanding that sculptures like paintings, were created by people who made certain artistic choices. As explained above, Grant and Erin speculated about how the artist made the Stake Hitch, and Teresa considered how the Classical artist made a figure of a man.

Erin made the same kind of connections with artist Naum Gabo and his Constructed Head No. 2 (1916, reconstructed c. 1923-24), rendered in the style of Constructivism. Though she admitted that she didn't know what it represented, and she did not have the vocabulary to describe the style or technique, Erin acknowledged that somebody "built" or constructed it in a unique way.
Based on these few examples, it remained unclear how much the children truly understood about the nature of sculpture. While many if not all of the children seemed to understand that sculptures are works of art created by artists, some of their comments suggested otherwise. One day, while passing a pair of Chinese Guardian lions, Martin announced that, "God made them." Martin may have been referring to the actual lions after which the huge sculptures were modeled, but we cannot be sure. Or perhaps, Martin's conception of God as Creator of the Universe simply paralleled his conception of artist as creator of works of art.

On another day, two of the children debated over whether or not a Jenny Holzer piece (*I Am A Man*, 1987) was a sculpture or a painting. Chad pointed out the work when he compared it to the *Stake Hitch*, asserting that the objects were different because Holzer's artwork contained lights. Chad agreed with the museum teacher that Holzer's work could still be called a *sculpture*, and Grant thought it should be called a painting. Yet when asked to defend his response, Grant changed his answer: "No, I think it's like a sculpture." Martin enthusiastically agreed.

*Understanding the Concepts of "Original," "Real," "Reproduction," and "Copy"

The discussions with all three groups revealed what the children basically understood about *art (artwork)* and *artist*. They all appeared to understand the intended meaning of the terms. However, one was not sure whether or not they understood that the works of art at the museum were *original* and special-different from reproductions depicted in books or posters.
In an effort to explore children's depth of understanding about works of art, one museum teacher introduced the concepts of real versus a copy to all three groups during their first visits. She led the groups to the American Galleries where they stopped to look at and discuss Frederick Church's painting, The Icebergs. Before looking at the original artwork, the museum teacher used four reproductions of the painting (a brochure, postcard, small print, and poster) to initiate a discussion about a copy versus a real thing. The museum teacher's choice of words was quite deliberate; she chose words that she thought the children could more easily understand. She did not ever use the term original, and she used the word reproduction only once.

One group began its visit with a comparison of the reproductions, and the comparisons were based on the size and darkness (lightness) of the images. In the course of this discussion, the museum teacher referred to the images as copies. She explained that they were all pictures of the real thing and challenged the children to find the real thing when they proceeded to the galleries. Upon entering the gallery where Church's painting was exhibited, one of the children immediately recognized the picture that looked like the images they had been viewing. Yet it remained unclear what-if anything-the children understood about copy versus real thing.

The other two groups did not begin their initial visits with comparisons of The Icebergs reproductions, but the museum teacher gave the children opportunities to stop and talk about objects that caught their attention as they walked to the American Galleries. Then in the context of more child-initiated discussions, the museum teacher introduced the concepts of copy and real thing.
In spite of the different approach, these conversations also yielded little information about the children's understanding of these concepts. For example, the museum teacher used the word *copy* to describe an animal sculpture. She explained how the sculpture was like a copy of the real animal, a cheetah. In the context of this dialog, the children might have understood that *real thing* denoted actual, living thing and *copy* denoted an object—a statue or picture—depicting the living thing. Chad more or less applied this interpretation when he asked on his fourth visit whether or not the Stake Hitch rope was "real." In this case, *real* seemed to denote *actual* rope, and the alternative would indicate something that is made to look like the actual rope.

On other occasions some of the children demonstrated a broader interpretation of *real thing* that included not just living things, but original things such as paintings. When the museum teacher showed one group the four reproductions of Church's *The Icebergs*, she recalled their previous conversation about the animal sculpture. Erin identified the images as "copies" because, she said, they were "pictures." Then upon entering the gallery where the original artwork was exhibited, Grant, Erin, and Martin all identified *The Icebergs* as the "real thing." This apparent understanding among members of Group B about the difference between a real versus copy was short lived. During a visit four weeks later, the museum teacher asked the same group whether or not it thought Coypel's painting, *Alliance of Bacchus and Cupid*, was "real." The children, including Erin, said that they thought it was not real. When pressed for a reason, Erin explained that it could not be real because "there's no such thing as this." In this context, the children had interpreted *real* to mean something that really happened.
The museum teacher's consistent choice of the word real was unfortunate, probably inappropriate and unnecessarily complicated. The concept can be challenging or obscure for most adults, let alone children. In spite of her fervent effort to introduce and explain the meaning of real versus copy, the children themselves never used the word copy to identify a reproduction. Further, the term real remained ambiguous throughout the six weeks.

In conclusion, as might be expected with young children, the term real presented great potential for misunderstanding. One never knew if the museum teacher and children shared the same definition. Therefore, none of the discussions relating to the concept contributed to an understanding about the children's notions about original works of art.

Understanding the Concept of "Art Museum"

This gap in understanding begs the question: If the children do not understand the meaning or significance of an original work of art, then what do they understand about the purpose and nature of the art museum? Every day, both museum teachers called attention to the museum's role as a custodian of objects when they prefaced their visits with a summary of "museum manners." By consistently reminding the children that they should not touch the museum objects because they might damage them, the museum teachers reinforced the notion that art museums are responsible for the objects' safekeeping. This, the children seemed to understand, was necessary so that other people could also come to see and enjoy the artworks.

One museum teacher took a more direct approach to discern what the children understood about the art museum. She did so by inviting conversations both about the
practical (or functional) aspects of the institution itself, as well as the unique qualities of the artworks exhibited on its walls. On three separate occasions, the museum teacher explained the role of the museum as a caretaker and exhibitor of unique, one-of-a-kind objects. About the Oldenburg sculpture she said, "There's only one like it...It's very special, and if we broke it then other people couldn't come and look at it...It's a part of the museum's job to protect these things and keep them safe." With another group, she pointed out how a museum employee was using gloves and a brush to handle and clean an artwork, and how bright lights might damage an artwork.

Based on their comments, all of the children in the three groups seemed to understand the role of the art museum to protect and show works of art. However, their responses did not make it clear whether or not they understood why certain works of art and not others were exhibited there. Did they understand that these works of art were somehow special and chosen for the museum?

Through a line of inquiry, the museum teachers often encouraged the children to think not only about what types of objects were in the museum, but also why they might be there. Sometimes her line of questioning did not elicit a response or lead the children to address the *why*. But other times the children's comments revealed some of the reasons why objects might be at the museum. Over the course of the study several of the children asserted that they were there either because they were "beautiful," "pretty," or "cute," they were made for the museum, or all works of art go to the museum. Obviously, their simple explanations showed that the children probably did not appreciate the true value or significance of the objects on display at the museum.
While the museum's role as caretaker and exhibitor of objects was first and foremost in the minds of the children, the museum's didactic role was also acknowledged in many of the children's comments. Having been to zoos and other kinds of museums, the children could relate to the didactic nature of the art museum.

For example, one child said that the museum exhibited mummies because "they wanted to show people what they looked like." Another child revealed the greatest understanding about the practical role of the museum in her constant references to other museum experiences. She recognized that the art museum represented different kinds of objects and that it grouped and exhibited those objects in some significant way. She compared the museum to a shopping mall, explaining that different museum galleries are like different mall stores. She added that, "You have to choose what store you're gonna go in, and in the museum you have to choose . . . what place you're gonna go."18

All of the children in the study seemed to share this understanding that the objects at the art museum were there for them to look at, learn about, and discuss. This was most evident when they pointed out or tried to read the museum labels. At least once with each group, a child referred to a museum label during a visit. Both museum teachers picked up on this interest and often offered explanations about the function of museum labels.19

In some cases with all three groups, the children themselves were able to read the museum labels. They were often found trying to decipher the printed words or arguing about the information conveyed. And although some of the children could not read, they expressed an interest in the content of the labels. They asked about what they said, and invited others to read them aloud.20
Whether or not the children could actually read the print was not important. Rather it was important to note that the children thought the content of the labels was somehow significant and worthy of their time and concentrated effort. Perhaps by trying to read the labels, they empowered themselves or took responsibility in some small way for their understanding about the work of art.

Observations Related to the Children's Understanding of Concepts

Based on the museum visits with the three groups, it was determined that all of the children in the study shared a basic understanding about the concepts of artist, artwork, and museum. Yet there were some gaps in their understanding about other, related terms or concepts (such as sculpture, real/original, copy/reproduction). These gaps did not prevent the children from having meaningful responses to the works of art, but an awareness of the gaps did inform the study analysis.

The children in the study-like most four-year-old children-saw everything in the world as it related to them personally. Everything was open to interpretation. They approached works of art like they approached anything in their lives-with curiosity, wonder, and honesty. They never showed concern about getting a "right" or "correct" answer, so their responses were sincere and unfiltered. It did not matter if they used different vocabulary, were confused about a particular artistic material or process, or even if they perceived the works of art as unique and open to interpretation. The point is that the children freely exchanged their ideas about works of art, and many of their interpretations were indeed meaningful and plausible. Any gaps in their conception of
the complex nature of art served only to aid the researcher in her understanding and analysis of those interpretations.

General Observations Related to the Children's Responses to Works of Art

The previous section addressed observations concerning the children's understanding about concepts related to works of art in a museum. During the study however, observations were also made regarding the way in which the children processed and expressed their ideas. These observations also provide a context for understanding their responses to works of art by taking into account not only what the children said, but also how and in what context they said it.

The theories of Piaget, Vygotsky, Parsons, and Housen, as well as studies related to language acquisition and learning provide a framework for discussing study phenomena. Many of the general observations relating to the children's responses to works of art can be explained in terms of the concepts or ideas presented by previous research. As the following sections will show, those observations sometimes substantiate, sometimes challenge long-held perceptions about how children achieve and demonstrate their understanding of works of art.

Preference Based on Color or Subject Matter

On many occasions, just as Parsons observed in his research, children in all three study groups expressed an opinion about or preference for a work of art based on the colors or subject matter depicted in the work. And on one occasion, such preference prevented the children from addressing aspects of a painting that were key to its meaning. But overall the children's preference or lack of preference for a work of art did
not seem to affect (positively or negatively) the level of enthusiasm or the quality of the dialog. Frequently the children had little or nothing to say about works of art in which they expressed great interest. They would identify a work they wanted to discuss, but when provided with an opportunity to do so, they could not find anything to say. Conversely, they often became engaged and had animated, meaningful discussions about works of art they claimed they disliked.22

One child for example, seemed intensely interested in Church's *The Icebergs* and contributed a great deal to the discussion. Yet near the conclusion of their visit, she openly expressed her dislike for the artwork. Another day, following an excited dialog during which the children expressed meaningful interpretations of Vernet's *Mountain Landscape with an Approaching Storm*, all but one member of the group admitted that they did not like the painting.

Throughout the study, children in all three groups were able to discuss and derive meaningful interpretations of works of art that depicted subject matter and content that were not interesting, let alone appealing to them. They went beyond their initial responses focusing on preference to achieve a deeper level of meaning and understanding about works of art. Therefore, preference was a challenge and not necessarily a detriment to looking at and discussing works of art with the children.

"Out of Mouth, Out of Mind"

Sometimes the children expressed ideas or thoughts that left their minds as quickly as they verbalized them. For example, a boat was the first thing that young Courtney identified in Church's *The Icebergs*. "All I see is the boat," she said frankly.
Yet later during their visit when the museum teacher asked where the children would go if they were in the water, Courtney stated that she would swim to "the rocks and stick." Remembering that Courtney had earlier identified the "stick" as a "boat," the museum teacher asked what the stick was. "Hmmm. I don't know," Courtney replied, completely forgetting a thought she had clearly expressed just moments before!

The occurrence of this "out of mouth, out of mind" phenomenon was not perceived as evidence that four-year-old children have bad memories; it seemed to have little or nothing to do with memory. In fact, as described in the section below regarding association/comparison, the children had quite vivid memories; they were constantly recalling previous experiences and relating them to new encounters. Rather, the phenomenon seemed to suggest that the children's responses were frequently stream-of-conscious expressions, which if not addressed, were quickly forgotten.

No matter how appropriate, meaningful, or even profound a response might have been, if it was not addressed immediately, it was often lost. When opportunities to explore, develop, and connect ideas were lost, then opportunities for deeper levels of understanding were probably also lost. Indeed, the museum teacher might have simply told Courtney what she said earlier and tried to initiate a discussion at that point. But Courtney's connection to the idea might have been difficult, if not impossible to recapture, perhaps making the discussion forced or irrelevant (and therefore meaningless) to the child.

As stream-of-conscious responses, the children's comments were unfiltered and non-linear. They thought out-loud, blurting out thoughts without following an apparent
line of thought or making deliberate connections. And perhaps because it was not a self-conscious process, those ideas were sometimes quickly forgotten. This did not necessarily mean that their thoughts were completely random and irrelevant. The children, like any viewer, brought with them a world of experiences to which they could try to relate their new encounter. Unlike more mature viewers however, they did not recognize and explain their thought processes. The significance of their responses then, could not be fully perceived and appreciated without an awareness of contributing factors, the context in which they were made.

The Disinclination to Adopt New Vocabulary

In general, it seemed that the children were reluctant to use new terms as presented by the museum teacher. They repeated new or different words when they were introduced and seemed to accept and understand the museum teacher's usage of those words. However, in all but one case, the children returned to using more familiar words.

Recall for example, the disinclination by all of the children to use the term sculpture. The same reluctance to assimilate new words was demonstrated in front of Church's The Icebergs. When Megan identified the subject matter as mountains, the museum teacher explained that the mountains were made of ice, leading Courtney to refer to the "cold mountain." Then the museum teacher introduced the term iceberg to describe a "great big huge mountain made of ice." Yet Courtney continued to use the word mountain: when asked what the mountains of ice were called, she conjured up the term iceberg but then reverted back to using mountain and ice peaks. Megan on the other
hand, finally did use the new term: Courtney commented that she did not like the "mountain," and Megan said that she did like the "iceberg."

The children's disinclination to integrate new vocabulary did not seem however, to interfere with their ability to look at and discuss works of art in a group setting. The children did not adopt, but did accept new language. To use Piaget's terms, they might not have accommodated (altered their perception of) new concepts or words, but they assimilated them in ways they enabled them to have meaningful group discussions. They made sense of them in the context of their own perceptions and understanding about works of art. Therefore, their disinclination to use new words might not have demonstrated misunderstanding, but rather a (conscious or unconscious) choice about language.

Clearly, the museum teacher's repeated use and occasional explanation of certain words was not enough to affect a change in the children's habitual language usage. Consider again the notion of habit as it is defined in Chapter II. Perhaps the children continued to use particular words because they did not perceive a need or value in doing otherwise. The words may not have been appropriate or relevant to the children, and hence their usage did not make sense to them. The museum teacher introduced new language, but if that language was not grounded in a new construct of the children's understanding, it would not produce a change in their behavior.

Neither this (conscious or unconscious) rejection of new vocabulary, nor the "out of mind" phenomenon seemed to prevent understanding on the part of the children. Rather, they were obstacles in the facilitator's (or the museum teacher's, and in this case
the researcher's) understanding about the children's responses. The children used their ability to associate and compare objects, concepts, and ideas to achieve understanding about works of art. And in order to recognize and acknowledge that understanding, it became the role of the museum teacher (and the researcher) to recognize how and why those associations and comparisons were made.

**The Use of Association/Comparison**

The process of association and comparison was characteristic of all members of the three study groups. The study subjects were natural classifiers, constantly relating, comparing one object or experience to another in order to understand or communicate their understanding about them. On many occasions, when the children could not find a word to label or describe an object, they would identify things to which they might compare it. Rather than begin their response with, "It is...," the children said, "It looks like..."

For example, when approaching a non-objective work of art, one group began by identifying colors. "Do you see a picture?" the museum teacher asked. "It looks like a shape," responded Jackie. The museum teacher probed further by asking if the children could identify any of the shapes. Jackie said, "that looks like a rock," and "it looks like a snowman too." She did not say that it was a shape, a rock or a snowman. In effect, Jackie was not sure about the subject matter but was confident to offer her opinion based on associations.

Later during the visit, Courtney identified a square shape in another painting. She noted that, "Cheese is a square." But when asked whether the painted shape represented a
shape, she said no, "cause it's orange." Like Jackie, Courtney was only suggesting that the square in the painting looks like a cheese. Megan associated the square shape to something from her own experience: "That looks like a t.v., and that looks like where you push the buttons." Tommy clarified Megan's comparison: "It looks like the t.v. and the control where you push the buttons." Each child related her/his interpretation of the shapes to objects they understood from personal experience.

Such "looks like" associations were not unique to contemporary, non-object works paintings. Frequently, in an effort to interpret or understand different works of art, the children in all three groups compared aspects of those works to other things from their experience. None of the children had trouble relating what they saw in a work of art to personal experience.

The reader may recall that Roberts (1997), Hein (1998), and Falk and Dierking (2000) address this aspect of learning (in particular as it relates to museum learning). As these researchers explain, visitors will learn only as they are able to make connections between new objects and information, and past knowledge and experience. This phenomenon also relates to Feinstein's (1982) conception of metaphor as an essential process and tool by which people make sense of and assign meaning to new experiences. While responding to works of art, the children looked beyond the literal to make associations and achieve deeper levels of understanding. Through comparison, they transferred attributes of something from their experience to some new object or image. In effect, they perceived and discussed the works of art through metaphor.
The children's use of association and comparison may also be explained in terms of Piaget's concepts of assimilation and accommodation. The children made sense of new information and experiences by filtering through and modifying pre-existing paradigms (or patterns of understanding). The children classified new objects and experiences as they related to objects and experiences from their past. Perhaps another example will illustrate these processes further.

One day while studying a dome-shaped building in a Canaletto painting, Micheal was reminded of a monument he had seen before. After much effort he remembered the United States Capitol and said, "Grant Washington D.C." With the museum teacher's help, Micheal learned that the architecture of Canaletto's building looked like our nation's capitol building, but that it was actually in a place in Italy. Through assimilation, he filtered his interpretation of the image through his understanding about the Capitol. Through accommodation, he altered his interpretation to reflect his new understanding about the subject of the painting.

Often unsolicited comparisons were also made between works of art exhibited in the museum galleries. For instance, while looking at Oldenburg's Stake Hitch, Chad observed that it was different from another work hanging on the other side of the gallery- a Jenny Holzer sculpture consisting of lighted panels. On another occasion, after seeing Church's The Icebergs, Erin pointed out two "horse pictures" displayed on the opposite wall, noting that they were different from Church's huge canvas.24

Sometimes the children's associations and comparisons involved references to works of art that the children had seen earlier in other galleries or during previous visits.
One child was especially perceptive in exploring such relationships. Upon viewing
Vernet's painting, Mountain Landscape with an Approaching Storm, she recalled the rain
god Tlaloc, which they had visited earlier that day. "Maybe the rain god put the rain in
there," she said about the painting. Two weeks later she associated the rain god with a
Pre-Columbian mask asking, "Isn't that the Rain God?"

As noted earlier, a key aspect of Piaget's theory of classification is the concept of
centration, which denotes the young child's tendency to compare objects based on a
single characteristic. Indeed, nearly all of the children identified similarities and
differences among objects based solely on size, color, subject matter, lightness and
darkness. But two of the more talkative children also demonstrated their ability to
compare objects based on more than one characteristic at a time. Courtney identified two
differences between The Icebergs and reproductions of the painting: "They have different
colors and different pictures." With another group, Teresa also noted two differences
between the original and the reproductions: "'Cause it's a big picture, and because it's
darker..."

Whether or not the other children were able to compare two characteristics of an
artwork at a time, it was clear that they were all able to leap from one comparison to
another, relating two or more works of art, and establishing a context, a framework for
discussing and understanding the works of art.

The Use of Scaffolding

Another means by which the children were able to achieve and demonstrate
understanding about works of art was through scaffolding. As explained in the previous
section, Vygotsky defined this phenomenon as the collaborative process wherein children share and build upon the responses of others: one child expresses a thought, another responds to it, a third child responds further and so on until the idea is more fully explored. The responses might reflect an acceptance or rejection of previously expressed ideas. The point is that any response to others' ideas demonstrates the children's ability to consider other points of view. And in so doing, the children open themselves to think about things that they might not otherwise. Through scaffolding, the children work together to construct their understanding.

When looking at works of art, this phenomenon might sometimes lead the children to follow a path that is tangential and irrelevant. For example, after one child inaccurately identified the subject of a portrait as a witch (because of her black hair), the other children in the group latched on to the notion. They continued to refer to her as the witch and build on that idea throughout its discussion.

However, this phenomenon can also enable the children to follow a path that leads to deeper levels of thought and ultimately, greater understanding. Throughout the study there was indeed overwhelming evidence of the children responding to and building upon each other's ideas. Children in all three groups constantly added on to or challenged other group members' comments. Sometimes they even changed their minds about something based on someone else's responses.

The Use of Projection

During the study, there were many cases in which projection contributed to the children's understanding about works of art. As previously discussed, projection was
often used as a meaningful way to identify with the artist. Much less frequently, the children used projection to perceive and express the emotive qualities in works of art. In these cases, through role-play, or by "transporting" themselves into the works of art, the children felt empathy for characters or gained some understanding about the mood or feelings expressed in the works.

Vygotsky tells us that play naturally contributes to children's developmental progress by enabling, or empowering them to behave in ways that they might not otherwise; through pretend-play (a form of projection), children reconstruct reality and adjust their behavior accordingly. During the study, just as the children were able to transform themselves into the artist, they were quite adept at using their imaginations to transport themselves into the scenes, to understand how it might feel to be a part of the artworks. Sometimes they did not (or could not in the case of scenes without people or animals) identify with specific characters, but instead imagined themselves in the work of art. Whichever the case, role-play seemed to be the most powerful means by which the children were able to identify with the ideas or feelings conveyed through works of art. Just as Vygotsky might have predicted, through play the children attained deeper levels of thinking and understanding about the works of art.

In general, members of all three groups enthusiastically welcomed opportunities to role-play or "play pretend." However, one particular visit powerfully illustrated the children's passion for role-play.

After learning of the children's interest in the cartoon character Scooby Doo, the museum teacher decided to tell the group a story about Scooby Doo in the art museum.
She invited the children to represent, or pretend to be characters from the story—a task they readily accepted. The children stayed involved and in character throughout the entire story. They even reminded the museum teacher of their roles when she addressed them by their actual names, and were delighted when she acknowledged them by their fictitious names. And as their characters, they expressed how they might think or feel during the story. Two weeks later the children expressed their desire to resume that "pretend game."

As noted earlier, the museum teachers provided many opportunities for the children in all three groups to step into the artists' shoes. Through role-play, the children could readily empathize with—or at the very least speculate about—the artist's thoughts and feelings during the artistic process. However, some of the children also had opportunities to project themselves into the works of art. By imagining what it was like to step into a painting, they began to explore what it might be like to be a part of the artwork or the scene depicted.

These explorations provided evidence that for at least six of the children, the interest and ability to role-play was not limited to narrative paintings. For example, when one of the groups was led to the Contemporary Galleries to look at Robert Motherwell's *Elegy to the Spanish Republic #108, (The Barcelona Elegy)* (see Endnote 21), the museum teacher invited the children to pretend that they could walk into it. The children had some difficulty responding in this way to the non-objective work, but the museum teacher continued to prompt them: "Tell me what you would see inside of that painting?" The two children who responded interpreted her questions literally, commenting that they
would get paint all over themselves. They also said that it would be quiet "because there are not any people," and it would be cold "because there's lots of air."

In this case with Motherwell's painting and earlier with Church's painting, this group was able to speculate about what it might be like to either be a part of the scene, or literally a part of the canvas—one possible first step in the process of understanding the emotive qualities of a work of art. Yet perhaps because the works were not narrative but more symbolic and conceptual, the children's interpretations did not go beyond superficial observations.

The interest and ability to role-play in these (and several other) cases did not lead the children to derive meaningful, plausible interpretations from works of art. However, there was at least one occasion with every group when projection seemed to contribute to their understanding about different works of art. In these cases they used role-play to empathize with the characters, "feel" the drama of the scene, and appreciate the emotive qualities of the works of art.

**Summary of General Observations**

At some point during the study, all of the children expressed their preference for works of art based on color or subject matter, forgot ideas previously expressed, and were disinclined to use new terms. But through association/comparison, scaffolding, and projection, the children were also able to overcome those challenges to find meaning and communicate understanding about works of art.

The museum teacher (and researcher) was challenged to identify and decipher the connections, the motivating influences behind a child's response. In order to discern
whether or not a young child's response demonstrated understanding, the museum teacher (and researcher) could not dismiss a response that seemed random and unrelated. Rather she had to assume that the response was appropriate within the context of that child's experiences, and make an effort to identify those connections. When she did not, one could only presume to know what the children understood or were trying to communicate about the work of art.

A conversation about a large untitled work (2000) by contemporary artist Annette Lawrence powerfully illustrated this point. The cylindrical-shaped sculpture consisted of many strings attached to the floor and ceiling with paper, tape, and glue. It was in effect a string "tube" extending from the floor to the ceiling. In a brochure about the piece printed by the Dallas Museum of Art (2000), the work was described as "mysterious, shimmering...Alluding to a shower of rain." It continued:

...one can imagine a pool of water with raindrops splashing up from the ground, while the dense lengths of parallel string shimmer in imitation of rain falling in a neat column from the sky...The artist has suggested that she had the idea of a boxing ring in mind when she thought of this construction, the string being 'the ropes' against which one is thrown or rests when doing battle in the ring.

Upon viewing the work, without prompting from the museum teacher, the children said that it looked like "water," or "rope water," "shiny glass," and "a merry-go-round." Through such associations, they seemed to zoom in on the essential aspects of the work (addressed in the above excerpt)-the ethereal, cascading, shimmering, and cylindrical qualities. But one could not be certain about the depth of their understanding, because the connections were not explored. Regrettably the museum teacher did not
prompt the children with questions to further explore the associations. Had she done so, the children might have derived and expressed greater understanding about the work of art.

On other occasions however, nearly all members of the three groups were able to go beyond their initial responses to achieve deeper levels of understanding about works of art. Using their natural tendencies to use association/classification, scaffolding, and projection, sometimes with facilitation and sometimes without, the children did engage in meaningful dialog to derive and communicate plausible interpretations of works of art.

Evidence of the Four-Year-Old Child's Ability to Derive Plausible Interpretations Based on Internal Clues

The study provided evidence that the children derived plausible interpretations of works of art, without external clues, and based entirely on the visual, formal clues perceived in the work of art. This evidence was observed in the children's use of certain language, and the expression of ideas developed through association/comparison and scaffolding. The findings revealed that most, if not all of the children were able to piece together visual clues to reasonably interpret the narrative or meaning of works of art.

Consistent with Piscitelli's study (1988), the children in all three groups usually began their discussions by naming the central feature in the works of art, and then through the teachers' facilitation they identified smaller details. Sometimes this process of identifying the visual aspects of the artworks led to some powerful insights and interpretations. Other times it did not.
"The Icebergs"

The Icebergs is one of Frederic Edwin Church's (1826-1900) greatest works. Completed in 1861, the grand, romantic landscape painting depicts an arctic scene in which huge icebergs rise up from calm icy waters. It was rendered with meticulous detail. Translucent blues, greens, and golds illuminate the water and mountains of ice to evoke an eerie feeling of both isolation and tranquil beauty. The only human element in the painting is in the foreground: a broken mast commemorating Sir John Franklin's lost arctic expedition.

As explained earlier, none of the children ever expressed ideas regarding the meaning or story behind The Icebergs. The children's comments never went beyond an identification of colors and details that they could identify in the work. Although through facilitation, members of one group recognized that the painting represented a cold place, the discussion did not get past the superficial. In fact, the most animated discussions related to the children's associations of the subject matter with childhood stories.29

One group did get close to arriving at some level of discussion related to interpretation of The Icebergs. The group had focused in on the boat while looking at the reproductions and resumed a conversation about it while in front of the original work. "What is that boat doing right there? Is it crashed or something?" asked Teresa. Then offering her explanation, she continued, "I think it ran over a little big mountain like that." Micheal joined in the conversation to add that the boat "got cut. . .and the other part got down and it was lost. . .and the people got stuck."30 Micheal's comment led Teresa to wonder about the people, or rather the absence of people. The two children
speculated about where they might be and in the process noticed that none of the landscape paintings in the gallery depicted people. When the museum teacher asked why no people were represented, both Micheal and Teresa responded similarly: "Because it's not real."

Because the other two children in the group were getting restless, this discussion ended abruptly, and the ideas brought up by Teresa and Micheal were not fully explored. Yet their brief dialog revealed how they used scaffolding to develop their ideas and touch on some essential aspects, as well as one commonly accepted interpretation of *The Icebergs* painting—It is a fantastic ("not real") representation that recalls, through symbols (versus action), an actual historical event (the supposed crash of Franklin's ship).

Based on the children's comments *The Icebergs* seemed challenging for them on several levels. First, the painting is a landscape—not a narrative painting that tells a story through action by depicting an event or activity. Narrative paintings are generally more accessible to the viewer, as the meaning can often be derived through a process of inquiry that begins with the question, "What is happening in this picture?" Landscape paintings on the other hand, do not usually tell a story (if at all) in such a direct manner. As suggested above, the underlying meanings behind *The Icebergs* are subtle. While it possesses are narrative qualities, one cannot derive possible meanings through a consideration of some action that is taking place.

Another reason that *The Icebergs* might have been challenging for the children was that none of them seemed to identify with the subject matter at all. Living in Texas, and probably having little or no experience with snow, ice, or extremely cold
temperatures, the children did not (and possibly could not) relate the subject matter to their own personal experiences. Rather, they made associations to things they heard about in stories—tunnels, caves, and pirate ships. They referred to rocks, mountains, and water, but only one child identified ice, and then only in a cursory comment at the conclusion of their discussion.31

While the museum teacher explained to one group that the mountains were of ice, she did not openly disclose this information to the other two groups. Perhaps consequently, members of these groups did not ever identify, let alone discuss the coldness of the subject matter. Maybe because the subject matter was so foreign to them, at least one member of each group concluded that The Icebergs depicted a place that was not "real," not from here and now, but from the artist's imagination or the distant past.32

Following their first visits, the museum teacher was sensitive to these challenges for the children. She wondered with the researcher whether or not looking at photographs and discussing Antarctica would provide the children some context to approach and better understand The Icebergs. She decided to revisit the painting with one group during their second trip and preface the visit with pictures and a story of Frederic Church's arctic expedition. Her efforts were not successful, however. As hard as she tried, she could not lead the children to make the connection between the photographs, the story, and the painting.

Two factors may have contributed to the failure of the museum teacher's experiment. First, the photographs and story were not presented in front of the painting but in a separate gallery. Second, the museum teacher permitted the activity to be
completely child-directed, allowing them to interrupt, add to the story, and lead the discussion in any way they wished. As a result, the children lost focus, did not relate the activities to the painting, and became totally involved in tangential conversations.

The Use of Projection in Discussions Related to "The Icebergs"

As noted above, projection (including role-play) was not limited to narrative works of art. Once, when the museum teacher pointed to a detail in The Icebergs and asked the children how they would feel if they were in the painting, several of the children responded that they would feel cold, they wrapped their arms tightly around themselves and pretended to shiver. The museum teacher asked them what sounds they would make, and they answered in the first person: "I'm cold." "I'm going to get warm by the fire." The entire group continued to pretend, relating some of the thoughts and feelings they might have experienced had they been inside the painting.

Unfortunately, this group did not remain engaged in role-play long enough to approach plausible interpretations. And unfortunately, the other two groups were not given the same opportunity (though brief) to pretend with The Icebergs. Perhaps if they were, they might have achieved the same basic understanding that it represents a cold, isolated place, a possible first step to approaching some interpretation of the painting.

Observations Related to Responses to "The Icebergs"

In all cases in front of The Icebergs, the visits were predominantly child-directed. With the exception of one introduction of the term icebergs, the museum teacher never provided information that would facilitate the children's "reading" of the painting during their first visits. Further, the manner in which she later presented the photographs and
story to the second group did not seem to contribute to the children's understanding of the artwork in any way. Obviously, as confirmed by these visits, some works of art—non-narrative works such as *The Icebergs*—require greater facilitation on the part of the museum teacher in order for the children to derive meaning from the works. However that is not to say that young children cannot ever derive meaning from such works on their own.

As evidenced in the above exchange between Teresa and Micheal, some four-year-old children are capable of scaffolding their ideas to arrive at a more meaningful level of discourse. Based on what they saw in the painting, these children were able to draw some simple conclusions and make comments related to interpretation. Perhaps through more direct facilitation they might have achieved a similar level of understanding to a more sophisticated (older) viewer. They had attained many pieces to the puzzle; the museum teacher needed only to add a few more and help complete the puzzle.

Based on *The Icebergs* visits, one might be inclined to believe that young children are not able to fully derive plausible interpretations of works of art on their own, without a great deal of facilitation from the museum teacher. However, later responses to other types or genres of artwork suggested the contrary.

"*The Witches*"

Towards the end of one visit, as they were preparing to leave, Micheal and Teresa were drawn to a large painting depicting several people in a chamber or small room. It was an oil on canvas by Walter McEwen (1860-1943). The central figure in this painting is a woman dressed in a red cape with chains around her wrists; she stares out tearfully
toward the viewer as a man beside her prepares to escort her from the room. An old woman is also seen standing in the composition and an old man collapses on a table with his bowed. The expressions and postures of the people within the space suggest that this is a sorrowful and frightening circumstance. According to the label, the painting tells the story of two Salem women awaiting their persecution (or punishment) as witches. No one read the title or information printed on the label.

Following the children's interest, the museum teacher invited them to sit on a bench and look at the painting for a moment. She asked the children what they thought about the painting, and Teresa immediately identified the scene as taking place "somewhere...a long time ago." She explained that she knew so because the picture reminded her of other pictures she had seen at Disney World. Teresa recalled her visit of an historic house or an exhibit of historic homes during a family trip. "I saw everything from long ago except the people," she said. She apparently made an association between the exhibit artifacts and things she saw in the painting, and concluded that they were from the same era.

Micheal's initial response to The Witches was very different from Teresa's. While Teresa's historical reference focused on the time when the scene took place, his first comment about the painting was about the location where it took place. "Maybe it was in the devil," he said. "It looks like it's in the devil." Based on Micheal's previous and subsequent uses of the term, devil referred to hell. Micheal then, believed that the people in the painting were in hell.
Teresa disagreed with Micheal's interpretation. She surmised that to be in hell (or as Micheal indicated, in the devil) is to be stuck in hell. However, Teresa defended, the subjects in the painting were "not stuck. . .because if they were stuck in there, the door wouldn't open. But the door was open for people to come in so they weren't stuck in the devil."

There are two points worth noting simply about Teresa's language or choice of words during this dialog. First, having established that the painting depicted a past event, Teresa returned to the past-tense when referring to the subject matter. Second, though she may not have accepted Micheal's definition of the term devil (see Endnote 33), she incorporated his use of vocabulary ("in the devil") in her response; she scaffolded on the language and concepts previously expressed by another member of the group.

Micheal however, did not seem to be suggesting that the people in the painting were stuck in hell. He disregarded Teresa's reference and defended his interpretation. "I know why they're in the devil," he said. "Because they are waiting. Because I see her crying, and everybody's coming to see her crying because they're the mean people." They are mean people, he added, "Because they look like they're tying them [two women] up."

In effect, during the above dialog the two children indirectly began to address whether or not there was a feeling of entrapment or escape, hopelessness or hope in the painting. Micheal perceived the woman in chains as a prisoner in "the devil." Teresa did not necessarily accept this idea. "They're not tying her up," she said about he central figure. "She just has the chain. . .a chain holding her arm."
Although Micheal and Teresa disagreed about some of the details (whether, for example, the people were entering or exiting the room), further discussion revealed that their interpretations of the painting both addressed the same feeling of despair—a feeling shared by the other two children. An exchange involving the entire group transpired and the profound sentiments expressed were astonishing:

*Micheal:* She's getting tied up with because she...She's crying I see her.
*Museum Teacher:* Why do you think she's crying Micheal?
*Tina* (accepting Micheal's interpretation that the woman is crying):
She's just sad.
*Museum Teacher:* Why is she sad Tina?
*Harry* (building on the idea that the woman is crying): Because there's bad things.
*Micheal:* Because they're tying her up. That old lady is praying for her. . .That man that's sitting down, he's praying for her. Everybody's getting out now because it's at the devil.
*Teresa* (restating her earlier interpretation, disagreeing again with Micheal but using his language): They're not getting out, everyone's coming in the devil. . .
*Harry:* He's crying 'cause he. . .That girl's crying 'cause. . .he's going to sleep.
*Museum Teacher:* What do you think this lady over here, the one all the way over with the white thing on her head...What do you think she's saying to the girl?
*Micheal:* She's praying . . .Because maybe she's going to die.
*Museum Teacher:* Whose going to die?
*Micheal:* The lady that has the handcuffs on.
*Museum Teacher:* With the red cape.
*Micheal:* Yup. And the other lady.
*Museum Teacher:* Oh, do you think they are both going to die, so the woman with the white cap is praying for them?
*Harry:* That one dying lady right there.
*Teresa:* No, not...the other lady, she's dying and both of them are praying.
Observations Related to Responses to "The Witches"

Together, with minimal facilitation from the museum teacher and without obtaining external information, all (four) of the children in this group were able to scaffold upon each other's ideas to arrive at a plausible interpretation. Realizing that it was a scene filled with great sadness, the children together arrived at the following conclusions: the painting depicted an event that took place a long time ago, one or two young women were going to die, and at least one of the other people (the old woman) was praying for the young woman (or women). The children all seemed to sense the feeling of doom, despair, and dreadful anticipation using the terms *devil, crying, waiting, mean, sad, bad, praying*, and *dying* to describe what they saw in the work of art.

During *The Icebergs* visits, only Micheal and Teresa went beyond a simple identification of color and subject matter to make statements related to interpretation. Even then however, they did not express the same depth of understanding that they and other members of their group shared in front of *The Witches*. Although Micheal and Teresa essentially led the conversation, the other two children also responded to the more overt narrative qualities of *The Witches*. They all made comments relating to their interpretation of McEwen's painting—comments that were appropriate and meaningful.

"Mountain Landscape with an Approaching Storm"

All three groups visited Claude-Joseph Vernet's (1714-1789) *Mountain Landscape with an Approaching Storm* (1775). The large landscape painting is similar to Church's *The Icebergs* in that it also presents the viewer with a magnificent panorama of natural beauty. A large mountain, like Church's iceberg, emerges in the center of the
composition, and a body of water also stretches across the bottom half, close to the center of the picture plane. The sky and surrounding landscape dominate over the human element in this painting as well. The active landscape contrasts with the eerie calm of Church's scene; an ominous dark sky creeps across the top of the picture and the wind blows the trees violently. Also unlike *The Icebergs*, Vernet's painting contains more than a mere reference to human life. In the foreground a group of fishermen, two women (one holding a baby), and a child are seen scurrying about, trying to return to their homes before the arrival of a big storm. A fortress or castle-like structure perches above on a rocky cliff. Tucked in the mountains, like Church's boat tucked in the ice, illuminated by a ray of light in the center background, is a small village—a symbol of home and safety.

Two different museum visit formats were used for the groups, and the ensuing conversations were different. The first two groups were presented with a short activity and discussion in the museum's atrium. After inviting the children to sit in small groups at tables, the museum teacher initiated a dialog about thunderstorms and asked the children to draw pictures about thunderstorms. As the children drew, they talked about the sights and sounds of a storm: thunder, loud, lightning (light, light that goes off and on), flash (a flash that just fell down), rain (raindrops), clouds (thunderclouds, storm clouds), dark sky.

These preliminary discussions in the atrium set the stage for the first two groups’ encounters with Vernet's *Mountain Landscape with an Approaching Storm*. Upon entering the gallery in which the painting was displayed, the museum teacher invited the children to identify a work of art that depicted a thunderstorm. All but one of the children
quickly discovered Vernet's work; they were instantly drawn into the painting. Their animated responses went swiftly beyond an identification of details to overall interpretations of the scene, and these interpretive comments seemed to relate to or build upon ideas previously expressed in the atrium.

During the first group's discussion in the atrium, Courtney used the terms "dark" and "black" to describe the sky during a thunderstorm. Then later upon seeing Vernet's painting, Megan immediately acknowledged the painting's "dark sky." In the atrium, two of the children talked about how a tiger might feel and act in a thunderstorm: "I think they're afraid of it," said Krissy. "Maybe they get in their houses," added Joey. In front of the painting, the children quickly focused on the people and animals in the foreground, sensing their apprehension. They described the people as "waiting," "sad," and "going home." And echoing Megan's and Jackie's earlier cheerful sentiments about colorful rain and rainbows, members of their group responded more optimistically to Vernet's drama than did members of the other groups. They realized that the people were trying to avoid being caught in the storm, but they did not project a sense of urgency or fear.

The second group also made comments about the Vernet painting that related to ideas explored earlier in the atrium. Based on their preliminary discussion, the word thunderstorm had strong negative connotations for several members of this group. A thunderstorm "hurts some people" and "burns," "hits," or "kills" things. It is "prickly and it kinda hurts," explained one child. These associations seemed to carry over into their responses to and interpretation of Vernet's artwork.
Like members of the first group, the children in the second group zoomed in on the action in the painting's foreground. However, their interpretation was more suspenseful and melodramatic. Scaffolding or building upon each other's ideas, the children began to weave stories about what was taking place. Grant said that the people were pulling in the rope and Erin added that they might be trying to save someone who had fallen into the water. These comments related to references made in the atrium about swimming and the dangers of swimming in a thunderstorm. Martin heightened the drama of this interpretation by saying that maybe the rescue attempt was futile, and the person in the water "went dead and went up to heaven." A few moments later, after Erin's speculations about what was going on, Zoe began to suggest that the castle on the hill was "heaven," but Chad finished her thought: "Maybe that's heaven." He later stated this opinion more emphatically: "I think that castle's heaven."

With both visits involving the preliminary activity, the children seemed to incorporate the same language and sentiments that they shared during the atrium drawing exercise. The activity and related discussion appeared to lay a foundation or create a context for interpreting and understanding the Vernet painting.

The third group did not draw or discuss thunderstorms before looking at and discussing Vernet's painting. Perhaps consequently, the children did not connect as quickly or have the same emotional response to the work of art. Their visit began with an explanation that they were going to look at and "listen" to a special painting. Then as they passed through the museum galleries, the museum teacher invited the children to listen to the works of art that they saw on display.
Upon entering the gallery where the Vernet painting hung, the third group did not gravitate towards it as the previous two groups did. Rather, the museum teacher directed the children's attention to it by asking what they heard in it: "Look at this...Do you hear anything?" While the children sat quietly listening, she made soft whistling sounds, mimicking the sound of wind.

Following the museum teacher's line of inquiry and aural cues, the children in were able to identify elements in the painting (wind, lightning, rain clouds) that eventually led them to conclude that the subject of the artwork was an approaching storm. In effect, when the third group approached the Vernet, it was "behind" the other groups in its thinking process. Unlike the previous children, they did not approach the work with a particular mindset. They were not predisposed to thinking in terms of "thunderstorm," about how a thunderstorm made them think, feel, or behave. They did not possess a particular framework or context for looking at or talking about the work of art. Nor therefore, did they make quick connections or launch into bold interpretive statements. While the first two groups went straight to interpretation, the third group spent much of its time identifying details simply to establish the subject of the painting.

Once members of the third group realized that Vernet's work depicted a storm, they were able to move from random, disconnected, sometimes completely irrelevant comments to thoughtful interpretations about the action that was taking place in the painting. After they finally pieced the elements together to conclude that there was a storm coming, the children began to talk about how the people were trying to escape the
rain and seek refuge in either the town or the "castle"—A conclusion drawn by the other two groups within their first few minutes in front of the Vernet painting.

*The use of Projection in Discussions Related to "Mountain Landscape with an Approaching Storm"

While in front of Vernet's painting, the third group quickly identified with the subjects and action of the scene. The museum teacher asked the children what they "heard" in the painting, and they spontaneously acted out details, complete with sound effects. Micheal instantly related to a man who was pulling up fishing nets in the foreground. He began to make pulling motions and blowing sounds, and Tina quickly joined him. Moments later, Teresa mimicked the movement of another figure in the painting; she tried to make her dress "fly up" like a woman's dress blowing up in the wind. The group then discussed aspects of the work that related to the feeling of haste and chaos portrayed in the characters. For this group, projection was one of the most powerful, if not the single most powerful means by which the children were able to understand the emotive qualities of Vernet's painting.

*Observations Related to Responses to "Mountain Landscape with an Approaching Storm"

As with *The Witches*, all of the children seemed to identify with the feeling of fear and anticipation in the narrative depicted in Vernet's painting. Though each group's interpretation of certain details was slightly different, they all related to the turbulent nature of the scene: the blowing wind, raging water, scattering people and animals. They each recognized the impending danger or difficulty of a fast approaching storm. At least
one member of all three groups referred to the fact that the storm had not yet arrived but was indeed approaching. Erin and Grant announced that, "The storm is on the way," and Joey stated, "a thunder comes." Harry said that, "It didn't rain yet." Teresa added, "The people are gonna get wet if they don't hurry . . . They're gonna take a boat." Micheal further expressed the sense of urgency when he said, "They can't take time."

In spite of some of the differing interpretations, all three groups also sensed the calm fortitude of the castle on the hill and the serene safety of the village in the distance. Though there was disagreement about which of the two places the people in the painting were fleeing towards, no one disputed that either the lighted village or the structure on the hill represented refuge from the storm.

Evidence of the Four-Year-Old Child's Ability to Derive Plausible Interpretations By Assimilating External Clues

One of the study objectives was to determine whether or not the children were able to assimilate external clues about works of art in order to derive plausible interpretations. This evidence was sought in the children's use of certain language, and the expression of ideas developed through association/comparison, scaffolding, and projection.

The Introduction of Art Historical References

For the purposes of this study, art historical references were understood to be comments relating to when (time period, dates), where (provenance), how (technique, style), with what (medium), by whom (maker, culture) and for what purpose an object was made. As explained above, the inclusion of such art historical references was left to
the discretion of the museum teachers. They were encouraged—but not required—to present art historical information however and whenever they thought it appropriate.

Sutton made an effort to integrate art historical terms and explain art historical concepts. She repeatedly referred to the artist and artistic choices, and explained the terms *sculpture, painting, landscape,* and *impressionist.* She led one of the groups to four different paintings and discussed each of them—though briefly—in terms of the impressionistic style. She elected to discuss three portraits with another group in the hopes that the children could identify the works' stylistic differences. She read the same group a short essay about Frederic Church in order to establish some framework for understanding *The Icebergs.* Finally, she told the third group the story of Romulus and Remus in an effort to impart information about Mignard's painting on the subject.

However, in all of these cases the children seemed to miss the point. They listened and comprehended what the museum teacher was saying, but they did not appear to understand the main ideas or apply the information to their interpretation of the works of art. Therefore, the study findings provided little evidence that the assimilation of art historical information (including new concepts or words) contributed in a significant way (if at all) to the children's understanding of works of art.

Frequently, the children made statements or observations that were profoundly appropriate and might have led to discussions incorporating art historical references. Yet they did not explore or develop their ideas enough to achieve that level of discourse. For example, during a visit to the Egyptian Galleries, the quality of the discussions among the children was impressive. Having seen cartoons or movies about Egypt (such as Disney's
The Prince of Egypt, or The Mummy), many of the children already possessed a context for understanding the objects on display. They were familiar with the terms mummy, pyramid, and one of the children noted that the mummies were from a very dry place.

As was typical, in their efforts to identify certain objects the children began to associate and compare them to things from their own experience. Jackie and Megan associated a mummy of a cat to an egg and a cocoon, and the group talked briefly about cocoons, making the association again with other animal mummies. Unfortunately however, this connection did not lead to a discussion about birth and re-birth, key notions of Egyptian beliefs that might have contributed to their understanding about the objects on exhibit.

On another occasion, one of the groups visited Covarrubias' mosaic The Gift of Life, which represents the creation of the universe according to the Book of Genesis. The children identified details in the mosaic-the sea, fire, a rainbow, birds, an octopus-but never talked about what it all represented. Although the children attended a Christian school and were familiar with the story of Genesis (a mural of which decorates their classroom) their comments did not lead to a dialog about the story.

In these two cases, the children identified key aspects in the works of art but did not develop their ideas to establish a context for understanding, or finding meaning in the objects. In the case with the Egyptian objects, the children identified concepts relating to birth and re-birth, but did not understand that mummies represent the ancient culture's belief in life after death. In the case with the Covarrubias mural, they named details in the work representing symbols from the Bible, but did not understand that the artwork
depicted the creation of the universe. In both cases the children might have achieved a deeper level of understanding of the objects by identifying historical references, but they did not.

*The Concept of “Time”*

Just as it was important to evaluate the children's responses for their underlying preconceptions or understanding about the concepts of art, artist, and museum, with regards to art historical information, it was important to recognize their preconceptions and the language they used to talk about the concept of time.

There is a body of research that tells us that young children have a limited concept of time (Kerlavage, 1995). Indeed, the subjects in this study demonstrated a limited understanding. And the museum teacher did little to develop or deepen that understanding.

As is typical, the children frequently used the words long time-sometimes without ago- to denote past events. For example, Martin said that the scene in Vernet's painting took place "a long, a long, a long time." Chad more emphatically expressed a passage of time when he said that he went to the zoo "a looong, long, long, long, long, long, long, long, long, long, long time." Other children and the museum teacher followed suit: the more long's they used, the further back in history something was made or took place.

The museum teacher tried to use the children's language and sometimes attempted to give them a point of reference. About the Mignard subject matter for instance, she explained that it took place "...a long, long time before even refrigerators" But
regrettably, the reference did not seem relevant to the children and it was lost on them; when talking later about the Mignard, the children completely forgot about the refrigerator reference.

The Concept of "Style"

The concept of style was introduced indirectly in the context of discussions about artists' choices. (Recall the above discussion related to the children's understanding the concepts of art and artist.) During these dialogs, the children explored the reasons why artists might choose different ways to create their works. However, there were several occasions when the museum teacher took a slightly more direct approach in her attempt to introduce the concept of style.

Following its visit to Monet's *The Siene at Lavacourt*, a group moved on to discuss another of his paintings entitled *Water Lilies* (1908). "It looks weird," observed Jackie, "because I can't see it very well." The museum teacher tried to clarify Jackie's comment by asking if it was "kinda blurry." Jackie shook her head, "Kinda." The museum teacher explained that artists at that time purposefully painted in that way, "because they didn't like it to look like a photograph. . . They wanted to change it a little bit." She noted that the painting was also by Claude Monet and that he was called an *Impressionist*, which "meant that he was making an impression of something like really quick."

While Jackie's observation about the Monet painting had opened the door to a discussion about Impressionism, the discussion was brief and the children may not have fully understood the concept of *impressionism*. Yet they took with them a context for
looking at and discussing other works of art. After they left the Water Lilies, they went to the American Galleries and stopped in front of Andrew Wyeth's That Gentleman (1960). The museum teacher asked how Wyeth's painting differed from Monet's paintings, and the group began to discuss artists' choices. Jackie—the same child who noticed the "blurry" quality of Water Lilies—said that the artist (Wyeth) painted the portrait differently "so you can see it better." Teresa added that the painting was "clearer." The discussion became confused when the term real was brought up, but the children's use of certain vocabulary relating to different styles of painting transferred to another conversation two weeks later.

During a later visit by this group, the museum teacher closed her eyes and asked the children to secretly choose and describe one work of art to her. Later the museum teacher would open her eyes and try to guess which painting it was. The group chose a work by Clara M. Williamson (1875-1976) entitled Get Along Little Doggies (1945). After the children described the subject matter and colors in the artwork, the museum teacher asked how the picture was painted, whether it was like or different from the works by Claude Monet. Recalling the previous discussion in front of Monet's Water Lilies, though she did not remember the word Impressionist, Megan said that it was different because it had lighter colors, and Monet's painting (Water Lilies) had blurry colors. She later added the artist (unlike Monet) must have painted very slowly.

Based on these conversations, it was clear that members of this group were able to sense and talk about stylistic differences. But this was not a groundbreaking discovery. As noted earlier, studies in the 1960s and '70s demonstrated young children's ability to
sort and group reproductions of paintings according to style (Taunton and Colbert, 1984). And unfortunately in this case, the children did not show any evidence that this sensitivity to stylistic differences helped them to understand the main ideas expressed through the works of art.

In fact, the reason for this may be that in every case above (with paintings by Monet, Wyeth, and Williamson) the children never got close to expressing an interpretation at all. Perhaps because three works of art (Monet's landscapes and Wyeth's portrait) were not narrative paintings, and discussion of the last (Williamson's work) was limited to subject matter, the children did not seem to derive, let alone communicate any real understanding. Or maybe because they did not get quickly to a discussion of the main points, the children lost steam and became bored with the paintings.

The museum teacher then wanted the children to identify the difference between blurry and clear in order to understand that the artists had different creative purposes: Monet's paintings were about capturing a moment, and Wyeth's and Williamson's more contrived works were trying to tell a story. The discussions however, never went beyond an identification of subject matter and stylistic differences.

On another day the museum teacher led the second group to the European Galleries and presented three "portraits": Pablo Picasso's (1881-1973) abstract painting *The Guitarist* (1965), Naum Gabo's (1890-1977) Constructivist sculpture *Constructed Head No. 2* (1916; see Endnote 14), and Amedeo Modigliani's (1884-1920) painting *Boy in Short Pants* (c. 1918). Conversations about the first two works served as a prelude to their discussion about Modigliani's painting.
The Guitarist was the group's first stop, and Harry quickly identified the subject: "I like that man!" After identifying details in the painting (colors, a hat, a statue, a spike, shoes), the group talked for a few moments about why the artist may have painted the man to look different from other works that look depict more realistic subjects.

Following their brief discussion about Picasso's painting, the museum teacher led the children to another gallery to look at Gabo's sculpture. Again, the discussion focused on an identification of the subject, and as with The Guitarist, they briefly addressed the reasons why the artist might have made his bust to look so different—not like a real person.

The museum teacher hoped that the children might perceive and discuss the stylistic difference between the works of art (like the first group with the Monet and Wyeth paintings) in order to understand that the artists had different goals in mind. On some basic level, one could conclude that the children understood that—and perhaps that was enough. But once again, the discussions never got far enough to explore what those creative goals for each artist might have been. The discussions never reached a point where the children talked about the ideas or meaning conveyed in the work of art, what the artist might have been trying to tell them.

*Storytelling as a Means to Introduce External Information*

Storytelling can be a powerful means by which external or art historical information may be conveyed to young children. Twice the museum teacher tried to introduce art historical information through storytelling. The stories were interesting to
the children, but they did not seem to contribute in a meaningful way to the their interpretation of the works of art.

"The Icebergs"

As noted earlier, after taking the second group to see Church's The Icebergs, the museum teacher realized that the children seemed incapable of identifying with the subject matter and she decided to read them a story about Frederic Church. The story was written in the first person, and described what the artist saw, thought, and felt while on a ship approaching a huge iceberg. But the children became distracted very quickly and the discussion completely void of focus.

The museum teacher presented the story in the Contemporary Gallery and not in front of The Icebergs painting in the hopes that the pictures and dialog would remind the children of the painting they saw the week before. Such connections, she hoped, might prompt a second visit to the painting and ideally, a more meaningful discussion about Church's work. This did not happen. Rather the children became disinterested, and the opportunity to revisit The Icebergs was lost.

"The Shepherd Faustulus Bringing Romulus and Remus to His Wife"

At its last visit, one of the groups was led to the European Galleries where the museum teacher invited them to look for a picture depicting twin babies. After perusing the galleries and stopping to examine some of the paintings more carefully, the children finally identified Mignard's large canvas. The museum teacher invited them to sit down and to listen while she read them a story. The children listened attentively to the story of Romulus and Remus and the founding of Rome for four uninterrupted minutes. They
looked back and forth between the museum teacher and the painting, occasionally inserting their comments. After she finished reading, the museum teacher asked the children to identify things from the story that they could and could not find in the painting.

The children had a lively discourse as they compared elements in the story and painting. Then the museum teacher asked them if they thought the story really happened. The group shared different opinions, and the museum teacher introduced and explained the term myth. Yet in spite of her best efforts to keep the children focused on the work to discuss the ideas or feelings conveyed, the group was ready to move on. As with The Icebergs, the story did not lead to a meaningful discussion the might have contributed to the children's understanding about the painting.

*Observations Related to the Introduction of External Clues*

As evidenced in the previous section, external information including art history is not always a necessary component of the interpretive process. The children were able to derive meaningful, plausible interpretations simply through visual clues, especially when responding to narrative works of art. Yet external information might be a means to achieve a deeper, or different level of understanding about works of art. The external information may not be necessary, *but cultivating* to meaningful and plausible interpretations.

During the study, the introduction of external clues, including art historical references, had no apparent affect on the children's understanding of the works of art. However, since such introductions of external information were infrequent and
inconsistent, the study does not conclusively demonstrate that four-year-old children cannot assimilate external clues in order to derive plausible interpretations. Rather, the study suggests the possibility that timing, appropriateness, and relevance may be critical to a successful introduction of such information. One might question *why* the museum teacher's art historical references were not meaningful to the children, and *if* and *how* they can be presented to contribute to young children's understanding about works of art. Are there ways to make external information appropriate and relevant to four-year-old children? This question might well be the focus of another study.
CHAPTER V
CONCLUSIONS BASED ON STUDY FINDINGS

The study revealed that all of the children had a basic understanding about terms related to works of art in a museum, and at least twelve of the sixteen children were able to have meaningful discussions and derive plausible interpretations of works of art in the museum.

Overall, the children's responses were stream-of-conscious, unfiltered, and non-linear, and perhaps due to habit, did not incorporate new vocabulary. And as Parsons' (1987), Housen's (1983) and other studies suggest, the children began their responses with an identification of details they could see in the works, and with expressions of preference based on color and/or subject matter. Yet the children were able to use their natural skills of association and comparison, scaffolding, and projection to derive understanding based on the internal clues of works of art. These phenomena may be understood in terms of Piaget's notions of assimilation and accommodation, Feinstein's conception of metaphor, and Vygotsky's theory about the zone of proximal development, which advocates the essential aspects of social interaction, adult facilitation, and play.

Unfortunately, the study did not provide the same conclusive evidence about the children's ability (or lack of) to derive understanding based on external clues of works of art. The study revealed more about how four-year-old children perceive internal clues, and less about how they might be able to assimilate external clues to derive plausible
interpretations of works of art. In retrospect, perhaps greater emphasis might have been placed on experimenting with many different activities or approaches that involve the integration of external clues. In this way, the study might have revealed not only what does not work, but also what does work when introducing information about works of art. Perhaps there are ways to maximize the children's natural abilities to associate/classify, scaffold, and project in order to promote understanding based on both a work's internal and external clues.

Context as a Means to Facilitate Understanding of Works of Art

The study revealed that context was paramount to meaningful discussions with four-year-old children about works of art. Context may be understood as the mental framework within which a work of art is approached or discussed. Sometimes, through an activity or dialog, the context is created by the museum teacher. When for example, the museum teacher invited a group to draw and talk about thunderstorms, she established a context for thinking about the Vernet painting. Other times, through personal connection, the context is suggested by a child. Micheal established a context for discussing The Witches, when he identified the scene as taking place "in the devil." Though they might not have agreed with his interpretation, the children's comments relating to sadness, entrapment, prayerfulness, and death were a direct response to Micheal's observation.

The child-driven context begins with one or more connections, observations or comments that are grounded in personal experience. Frequently such connections are communicated when children express their first thoughts in front of a work of art. These
unfiltered connections might, on the surface, seem totally random and irrelevant. But often, upon further examination, the significance of those connections becomes evident.

During the pilot study for instance, a boy named Holden was the first to comment about the Vernet painting. He immediately noted that the people in the scene were hunting for Easter eggs. The observation appeared to be completely misguided, but the museum teacher encouraged him to briefly follow his train of thought. In the moments that followed, Holden explained that he had attended an Easter party when there was a "bad storm," and the people and animals had to move inside. His seemingly odd connection was indeed appropriate: he instantly recognized the subject matter of the painting as a storm, but rather than mention it, he leapt to its association with an Easter party and the feelings he experienced during that party. He therefore readily identified with the feelings of fear and haste conveyed in Vernet's scene. Through the museum teacher's facilitation and comments generated by other members of the group, the connection developed into context for understanding and discussing the emotive qualities of the work of art. Holden later abandoned the connection in order to more accurately interpret the action depicted.

Therefore, connections do not necessarily denote understanding. Rather, understanding comes through the context. Recall the definition of understanding presented by Bigge and Shermis (1999) and addressed in Chapter I. According to their definition, understanding involves seeing both relationships and purpose—how something relates to other things and how it is significant. Such a definition implies the importance
of seeing something in terms of a broader context. The four-year-old child needs help identifying that context and perceiving the work of art within that context.

As evidenced when Courtney quickly pointed out the boat in *The Icebergs* only to forget it moments later, unless a context is developed around the connection, then it is lost. The connection itself did not designate understanding about the work of art; Courtney's comment was an identification of a detail, but not an interpretation of the painting. Yet the connection represented a point of departure, an idea around which the museum teacher might have developed context. Perhaps if the connection was quickly acknowledged and used to segue into a story about a lost artic expedition, the children might have had a context for interpreting the painting.

When connections occur, understanding about works of art may be cultivated through the facilitator, or museum teacher. She might not only acknowledge the connections, but also encourage dialogs that explore why they were made. After all, there must be some reason why children make certain connections while looking at works of art. Perhaps some understanding of the artworks might be gained through an examination of those connections and the development of context.

The establishment of context is not necessarily the same as trying to direct the children's thoughts or interpretations. Rather, by being sensitive to their connections and using them as a means to develop or construct a context, the facilitator, or museum teacher provides the children with a point of entry, at least one way to engage with a work of art. In effect, context enables the children to bring something to and ultimately, get something from the work. Of course, many different contexts may be established for
a single work of art; there is not likely to be one, correct context. The more different contexts-different perspectives-are explored, the richer and deeper the understanding about the work of art. However, relevance to the young child is what makes one context more privileged or meaningful to the four-year-old.

These conclusions, though based on a different definition and use of the term context, are consistent with current research and theories related to museum learning. As Hein (1998) and Falk and Dierking (2000) contend that museum learning is contingent upon the accessibility of museum objects and information—whether or not visitors can relate them to past experience and previous knowledge, and whether or not visitors can construct and validate new understanding about those objects. Meaningful museum experiences occur when visitors make personal connections, actively engage with objects in a variety of different ways, and share their ideas about objects and information. Based on this conception of museum learning, Hein, Falk and Dierking recommend that museums seek ways to enhance the personal, social, and physical natures of the experience.

The findings of this study however, make an even stronger case for more direct facilitation with four-year-old children. In order to make the art museum experience meaningful for its young visitors, educators must assume a more active role to not only foster personal connections and introduce different ways of thinking and talking about the objects, but also to recognize, explore those connections and ideas and help the children weave them into a context for understanding works of art.
Young children (like many adults) not only need, but also want context. Just as they must make connections for some reason, children ask questions for a reason—the reason being that they want to find meaning, understand what they are seeing. If they cannot make sense of a work of art on at least some basic level, if they cannot find some way to connect, approach or understand it, then they will quickly abandon it. They want to construct and validate (as Hein suggests) their understanding about new objects and ideas.

Art museum educators spend a lot of time and energy offering their older audience a foundation for approaching and understanding works of art. They provide context to their more sophisticated viewers through labels, docent tours, lectures etc. Regrettably however, an opposite approach is frequently taken with young children—an audience that perhaps needs context more than their older counterparts in order to engage and learn from works of art. Assuming that the children's fleeting interest in works of art is attributable entirely to short attention spans, that their interest cannot go beyond the superficial aspects of the artworks, and not recognizing their potential to have longer, more meaningful conversations about works of art, facilitators will often avoid providing context. They assume a more laissez-faire approach, accepting but not exploring or challenging connections. Nor do they try to promote understanding by developing context around those connections.

Of course dialog about works of art does occur without context. It happens as the children are encouraged to identify details or the action depicted in an artwork, and to offer explanations of their responses. But without context, the connections may become
random relative to the group discussion, and since the children are not encouraged to think about their connections and how they all relate (within a certain context), the connections may not contribute to their understanding about the works of art. What can (and often does) result then, is a self-fulfilling prophecy: the children's discussions about works of art, are brief, unfocused, grounded in personal experience, based entirely on preference, and void of any real meaning.

Art museum educators must therefore consider what the primary goal is for four-year-old children. If the goal of a museum visit is to enable children to look at and talk about works of art, then the facilitator need do little more than ask the children what they see in a work of art and listen enthusiastically to their responses. She should be prepared to move swiftly from work to another as the children quickly exhaust the visible inventories. However, if the goal of the museum visit is to help children engage with and gain understanding about, from, and through works of art, the role of the facilitator, or museum teacher is far more dynamic. In this case, she encourages the children to approach each work of art as a special object that might reveal something about the artist or culture who created it. She focuses on establishing context in order to enable the children to find meaning through their connections and ultimately, to derive an interpretation (understanding) about the objects before them.

What Remains to Be Learned: Suggestions for Future Research

Earlier studies reveal how young children naturally respond to reproductions of works of art. However they contribute little to our understanding about how young children might be able to respond to original works of art through adult facilitation. This
study focusing on four-year-old children did support previous conclusions related to young children's responses to works of art, but it also provided evidence that the children were able to move beyond their initial responses to achieve and communicate deeper levels of understanding about the works of art.

However, based on the study's lack of conclusive evidence related to the introduction of external clues, including art history, further research should be done to examine whether or not there are means by which external clues, including art history, can contribute to young children's understanding about works of art. Studies should be developed to determine if there are effective ways of introducing facts and information about works of art. Evidence should reveal not if they can simply regurgitate those facts and information, but if young children are able to apply them to their understanding and interpretations of works of art.

The study findings also suggest a need for further research relating to the children's use of certain language when responding to works of art. The study groups' disinclination to adopt new vocabulary warrants further investigation to determine if there are certain approaches that will enable young children to change their habits, to assimilate, accommodate, and learn to apply new language to their understanding of works of art.

A Suggested Approach for Art Museum Programming for Four-Year-Old Children

By demonstrating how four-year-old children were able to use their natural abilities to associate/compare, scaffold, and project, the study provides insight for developing an approach for looking at and discussing works of art with four-year-old
children. By placing the emphasis not on what the children are unable to do, but what they can do, it encourages art museum educators to design programs that fully explore the potential of their youngest patrons to think about art.

Of course, all art museum programs for four-year-old children should be based on an understanding about the unique nature of museum learning. In order to promote learning, one must, as Hein (1998), Falk and Dierking (2000) recommend, find ways to make museum objects and information accessible to the visitors (by means of the personal, social, and physical contexts). They should enable, empower visitors to construct their own meaning.

Art museum programs for four-year-old children should also be designed to be consistent with the ways the children naturally think about and respond to works of art. The theories of Parsons and Housen provide a basis for acknowledging typical behaviors and initial, unchallenged and/or non-facilitated responses to works of art. However, because these theories do not fully explore how children can develop understanding of art through cognitive or social processes, the art museum programs should not be based on these theories alone.

Such art museum programs should therefore, also be informed by the theories of Piaget and Vygotsky, which provide a basis for acknowledging the children's potential understanding, how they might find meaning through association/comparison (assimilation/accommodation and classification) and develop that understanding through social interaction and facilitation (scaffolding and projection/role-play). By recognizing expected and potential responses to works of art, the programs would foster opportunities...
for the children to go beyond their initial responses, to use their cognitive and social skills
to think and talk on a deeper level about works of art.

Creating Context to Promote Understanding of Works of Art

Based on the study, art museum programs for four-year-old children should focus
on helping children create a mental framework for approaching and understanding works
of art. But what would such an approach look like in practice? The study does not
support a model sequential approach for looking at art with four-year-olds. Rather, the
approach should be more organic and directed by certain guidelines focusing on the
creation of context that is relevant and meaningful to the children. Following these
guidelines, the facilitator would use interactive activities such as projection (including
role-play), drawing, and storytelling to help the children achieve, or construct one or
more contexts for a work of art, thereby contributing to their understanding of that work.

Guidelines for an Approach Focusing on Context

• Seek ways to create a context for visiting works of art before the children's actual
gallery encounters. The facilitator should as often as possible, present opportunities
for the children to explore themes, concepts, feelings, and ideas that relate to objects
they will/might see in the museum's galleries. These preliminary activities and
discussions can provide a mind-set and often the vocabulary to look at and discuss the
works of art. Ideally, they leave the children open, more perceptive and receptive to
the ideas conveyed in the artworks.

• Seek ways to engage the children as quickly as possible with works of art. If s/he has
not established context before the gallery visit, then the facilitator should relate the
children's initial comments and connections to establish context within the first few minutes of the visit. The facilitator may also solicit connections and create context by means of one of the strategies below. As soon as possible, s/he should try to engage the children in a discussion (within that context) of the main ideas about or conveyed in a work of art. If the children do not become engaged, s/he should move on to another work of art with the intent to revisit it on another day. A prolonged stay rarely promotes interest and might only result in a forced conversation.

- **Let the context—not necessarily the dialog—be child-driven.** The facilitator should direct the discussion based on the children's interest and connections and make every effort to create contexts that are appropriate and relevant, and therefore meaningful to them. However, after helping the children to construct those contexts, s/he should try to keep the discussions focused, consistently restating and relating their connections to the bigger ideas. To this end, s/he should not be afraid to admit when s/he does not understand why a connection is made within a certain context. However, as much as possible, s/he should continue to make an effort to understand the connection and develop a context around it.

- **Use scaffolding to develop and enrich the context.** As stated above, the facilitator should try to integrate and connect as many of the children's comments as possible to create a rich context that has meaning for the entire group. S/he should encourage them to think about and respond to each other's comments, to try to relate to as many different perspectives as possible.
• Encourage association and comparison either between different works of art or aspects of a single work of art. Associations and comparisons should not only be accepted, but also encouraged and explored. An understanding of those relationships may enable the children to think about and discuss works of art in terms that they can identify and relate to.

• Enable the children to experience and discuss as many different types and genre of art as possible. While the children may not develop an understanding about certain types of artwork, their experience with those objects may contribute in some way to their understanding of other works of art. Again, by providing the children with greater and broader exposure to different experiences, the facilitator adds to their context and enables them to use previous connections as possible means to approaching new works of art.

Final Words

How might four-year-old children perceive and derive plausible interpretations from works of art in a museum? While a great deal remains to be learned about the potential of four-year-old children to think about and discuss works of art, the study findings provided evidence that they can indeed achieve deeper levels of understanding to derive plausible interpretations of works art. That understanding is realized through the creation of context, a catalyst to approaching, perceiving, interpreting, and appreciating works of art.
APPENDIX

THE PILOT STUDY

Description of the Study: Research Questions and Methodology

The pilot study involved five preschool children in three visits to the Dallas Museum of Art. Prior to the study, parents of each participating child signed a Parental Consent Form and completed a short questionnaire about their child. During the museum visits, the group was accompanied by the Director of the First Presbyterian Day School and myself, and on two of the days, one of the parents. The researcher acted as the facilitator and led the museum visits, which lasted approximately forty-five minutes. The museum sessions were recorded on audiocassettes, transcribed, and analyzed.

In order to elicit comments and discussion about works of art in the museum, the researcher used child-directed and inquiry-based approaches and involved the children in a variety of gallery activities. At each session, the children were given sketchbooks in which to draw. The researcher explained and consistently reminded the children that they should draw images that would help them remember what they saw in the galleries. During each visit the children took turns being "the leader," and directing the group to works of art that they wished to look at and discuss. When the researcher acted as "the leader," she directed the children's attention to works of art for which she wanted to try out specific activities.
Observations and Conclusions as They Relate the Pilot Study Questions

The Size of the Pilot Group: Groups of four to six seem to work well with four-year-old children. This number of children was large enough to promote interesting discussion, but small enough to maintain order and allow all children to participate.

The Length of the Museum Visit: While forty-five minutes was probably a sufficient amount of time to enable the children to engage with and discuss several works of art without getting bored, there were cases when the children become extremely involved in an activity or discussion. The researcher recommended that the museum visits for the final study be flexible to accommodate up to fifteen additional minutes (for a total of sixty minutes).

The Pilot Group's Response to the Museum Environment: While looking at works of art in an art museum, children were responding as much to their environment as they were to the works of art themselves. It was found however, that once in the galleries, the pilot study group had little difficulty focusing on the work of art being discussed. They were certainly excited to be there, but the preschoolers quickly acclimated to their surroundings and were able to focus their attention on the activities and discussions at hand.

The Pilot Group's Preference for Certain Types and Forms of Art: Based on Parsons' and Housen's studies, the researcher expected the pilot study group to prefer narrative paintings. It seemed however, that they were comfortable looking at and discussing many different forms and styles of art: three-dimensional objects, abstract, non-objective, painting, sculpture, and decorative arts. The researcher sensed that once a
leader selected a particular art form, the others were inclined to select the same kind of works.

**The Pilot Group's Understanding that Works of Art are Created by Artists Who Made Certain Choices:** The children seemed to have very little, if any difficulty understanding that people referred to as artists created the works of art. In addition, they appeared comfortable addressing questions relating to the artists' choices. This notion was explored in greater depth in the final study.

**The Pilot Group's Ability to Relate to a Work of Art As a Whole As Well As In Terms of Its Parts:** Piaget's concept of centration describes the young child's focus on single aspects of an object. Parsons confirmed this notion when he concluded that young viewers often base their understanding on specific parts of an artwork. However, the pilot study left the researcher wondering if the children were in fact responding to the artworks as wholes, and basing interpretations on an integration of internal and external clues. This concept of centration was examined more carefully in the final study.

**The Success or Failure of Certain Approaches and Activities:** The children enjoyed drawing very much, and some were disappointed when they could not draw. Drawing activities kept the children seated in one place long enough to have discussions. At times, however, the children did not remain focused on the work of art; they wandered and drew things seemingly unrelated to the work of art. When a drawing activity was done prior to visiting a particular work of art, it was not clear whether or not the children made connections between their drawing and the masterwork. Perhaps comparing their
sketches to a masterwork in the gallery would have facilitated more connections and deeper understanding.

The children responded enthusiastically to an activity referred to as *Follow the Leader*. During this activity, the children took turns leading the group to works of art for study and discussion. They enjoyed being "in charge" and were experienced in the concept. Unfortunately, the children selected the works hastily, in just a few minutes time, seemingly without much thought. Their selections appeared arbitrary, and the researcher could not ascertain the criteria for their selections.

Final Comments

It was concluded from the pilot study that the four-year-old children were capable of making insightful, meaningful, and completely appropriate observations and interpretations. However those observations and interpretations were disconnected, non-linear, making it difficult to explore or flesh out an idea fully. Rather than follow a train of thought (let alone a collective train of thought), the discussions are more like brainstorming sessions where ideas are freely shared and then quickly abandoned. Since four-year-olds find it difficult to follow a thread of thought, the facilitator should continue to revisit concepts as they become relevant in each museum visit.

The pilot study left the researcher wondering if certain activities, such as storytelling, can help to get the children on track. She was curious to see what might happen when a story was told in front of a work of art: Would it affect the way the children perceive the work of art? To address this question, the study facilitator should seek opportunities to tell the children stories and other interpretations of artworks. The
research attempted to determine whether the stories and interpretations of others affect the children's response.

Based on the pilot study, it was also concluded that the four-year-old children could sometimes be led through their idiosyncratic observations to arrive at interpretations that are more "accurate." But, in most cases, the meaningful interpretations seem to come naturally, and spontaneously.

With regard to Vygotsky's Zone of Proximal Development, based on the pilot study it was not certain whether or not the discussions, questioning strategies, or activities promoted deeper levels of thinking and understanding about works of art. With regard to his theory of learning through social interaction, it was evidenced that the ideas expressed by some did trigger thoughts among the others. The children would often copy-cat an idea, or they would deliberately try to seek a unique response. Whether or not this influence helped the children arrive at deeper levels of understanding was to be determined in the final study.

The pilot study observations seemed to support Piaget's and Parsons' conclusion that young children are naturally inclined to relate to specific parts of an artwork. However, it seemed that through facilitation and group discussion, the preschoolers were able to discuss the artworks as a whole. This phenomenon was more thoroughly examined in the final study.
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1 In this paper, the term family refers to any intergenerational group of adults and children.

2 For example, the Art Institute of Chicago recommends, Tips for a Family Visit (www.artic.edu/aic/kids/parenttips), and the Amon Carter Museum suggests gallery games for Looking at Art for Children (www.cartermuseum.org/education_set.)

3 Based on a telephone interview with Elaine Bartlett, Family Programs Manager at the Dallas Museum of Art, July 1, 2002.

4 The pedagogy for constructivism is based on the educational theory of John Dewey, which emphasizes the importance of (active) experience in learning. According to constructivist thought, all people learn through stimulating and challenging hands-on experiences.

5 Hein (1998) bases these ideas on Howard Gardner's theory of multiple intelligences, which establishes that there are at least seven ways to engage in thinking: linguistic, musical, logical-mathematical, spatial, bodily-kinesthetic, interpersonal, and intrapersonal (p. 165).

6 Such a conception of appreciation suggests that it involves judgment and/or opinion.

7 Vygotsky's theory is supported by Hein (1998) and Falk and Dierking (2000), who address the importance of the social aspect of learning in museums.

8 Connors never used the terms real, copy, or sculpture when referring to the works of art. She used the words art--or artwork--and museum only once or twice during each visit. While she used the word painting to refer to artworks, she did not offer an explanation about what a painting was—versus another type of artwork. The word artist came up only once with the four groups led by Connors.

9 During Group C's first visit, the museum teacher quickly gave the children a descriptive definition of art, artist, and museum. They also stopped in front of the Oldenburg sculpture before they ascended to the American Galleries to see Church's The Icebergs. The teacher explained that Oldenburg's Stake Hitch was a "piece of art...that somebody made." She added that "there's only one like it" and "it's very special...If we broke it then other people couldn't come an look at it. It's part of the museum's job to protect these things and keep them safe." In the context of this conversation the children might have learned that the museum exhibits unique works of art that are created by people. (Note that the museum teacher did not use the word artist.)

10 There were occasions when the children did not identify with the artist, in spite of the teacher's efforts to get them to do so. Towards the end of Group A's first visit, long after the children expressed interest in moving on to look at other objects, Sutton tried to initiate a discussion about the artist and the creative process. Though the term imagination was not new to them (it is a term used frequently by a popular television character named Barney), the children did not seem to relate their use of imagination during artistic process to Church's use of imagination during the creation of his fantastic iceberg landscape. This may be in part due to the fact that the children were simply bored with the painting. On the other hand, it
may be that the children did not make the connections Sutton sought because of they did not relate to (understand) the teacher's choice of words. There may have been an inherent discrepancy between what the teacher intended to say and what the children understood her to say.

11 Micheal offered a more meaningful response by indicating that the artist painted with "his eyes." In so doing, he acknowledged that in order to paint, the artist had to see, to look. He connected what the artist captured on canvas to what the artists actually observed during the creative process.

12 Micheal completely immersed himself in the role of the artist. As Monet, he expressed his joy at painting something beautiful. Yet minutes later, after he stopped pretending, Micheal admitted that he did not like the picture "cause it has grown-up stuff on it." Though he could speak on behalf of the artist, he actually shared a very different opinion of his work.

13 It should be noted that while the children could on some levels identify with the artist, their role-play experience did not really contribute to their understanding or interpretation of his painting. Perhaps with greater facilitation during which further information is given, the children may have achieved greater depth of understanding about the methods and/or style used by the artist to create his work.

14 Constructivism (for which Gabo was the most influential exponent) is characterized by geometric constructs, or analytic structures comprised of open planes.

15 Interestingly, in her own way, Erin was getting to the real significance of the piece. The sculpture was not supposed to be a recognizable representation of a human figure. Rather, the sculpture converted the human torso into an analytical structure. The sculpture was about being, as Erin so simply stated, "just a statue."

16 At Group C's first visit, the museum teacher asked, "When we go see the real thing (painting) can I take it home with me?" Another day she inquired, "Why do you think there are so many statues on the museum? Where are we today?" Harry answered, "The museum," and Anna specified, "The art museum." In the special decorative arts exhibition, the museum teacher challenged the children to think about why such objects would also be in the art museum: "Have you seen anything like this at the museum so far? Why do you think those dishes are in the museum?" Similarly, she asked on another day about a piece of folk art, "Why do you think there's a house in the museum?"

17 For example, one day the museum teacher asked: "What do they have in the museum?" The children responded that the museum contained "art" and "lots of pretty stuff." And when Teresa identified certain sculptures as "art," the museum teacher asked why the objects were at the museum. Teresa responded, "Because it's pretty." Though she recognized that all the objects in the museum were different, Teresa identified one commonality among them, something that might be considered a criterion for their inclusion on the museum walls: "They're all beautiful." On Teresa's fourth visit however, she provided other possible reasons why objects were at the museum. The museum teacher asked why someone might have made a painting (Vernet's *Mountain Landscape with an Approaching Storm*). Teresa responded, "They made it for the museum." Later during the same visit, looking around at other paintings in the gallery, the museum teacher asked why other people might have painted those pictures. Teresa offered another explanation: "Because they thought it would look cute. Because all pictures go in the museum." "So," said the museum teacher, "this one's painted to go in the museum?" "Because it looks like maybe it could be next to that one..." added Micheal. In effect, Teresa and Micheal believed that either museum art or all works of art are made for the museum. Whichever the interpretation, they believed that artworks are in the museum because they are created for that purpose.
Based on the parent questionnaire issued at the beginning of the study, this child (Teresa) had never been to an art museum, but she had considerable experience visiting other types of museums (science and history).

For instance, when trying to identify an Egyptian object, the museum teacher referred the group to a museum label. Courtney remembered this when they returned to the Egyptian Galleries the following week. She argued with Megan about the identity of a mummy, insisting that it was a snake (and not a baby worm) because, "That's what it (the label) says over there." On another occasion, the museum teacher asked if the children remembered what a museum label was. Teresa responded, "Those words tell us more about what we're looking at." Later the museum teacher reminded the children that the labels provide information about the objects' function and origin. When a child in another groups pointed out a label in a case, the museum teacher explained that the words tell the objects were made and who made them.

Teresa exhibited a greater depth of understanding about the didactic quality and real purpose of museum labels. One day some of the children began to compare paintings in the European Galleries. They speculated with the museum teacher about which paintings might be better exhibited side-by-side. "What if we moved these (paintings) and put that one next to it?" proposed the museum teacher. The children enthusiastically agreed that some paintings would "make sense" being placed together, while Teresa's thoughts jumped immediately to the logistics involved with this decision. "But you have to move the words and put it by the other one...cause those tell about this painting," Teresa explained. "You have to put those other words by it. But if you don't it won't tell about it."

On their second visit, Group A was led to the Contemporary Galleries where they stopped to look at Robert Motherwell's *Elegy to the Spanish Republic #108, (The Barcelona Elegy)* (1966). Motherwell's painting is one in a series of more than one hundred paintings (this was number 108) referring to the Spanish Civil War, which took place from 1936 to 1939. The work was created in response to the war, the devastation of the Spanish Republic and the resulting loss of freedom for the Spanish people. It is a large, non-objective painting depicting massive black vertical shapes against a background of lighter shapes and colors that are suggestive of the Spanish landscape. The use of these black forms to cover up the colors behind could symbolize a number of things, such as death and life, dark and light, or oppression and freedom. The painting seemed far too conceptual for the children to understand without at least some background information. But they tried to find meaning by associating colors and shapes from the Motherwell painting with things from their own experience. For example, although she could not identify specific subject matter, Megan related the pink color to a pink "paint pool," that "floats" and "would feel way cold." The others agreed that it would feel cold in the painting. Courtney, who had begun to describe a house with closed windows, offered a possible reason for the coldness: "Because there's lots of air." While the children identified and commented on the colors and shapes in the background, none of them mentioned the huge black shapes that overlapped the other colors and dominated the picture space. Not until the museum teacher asked, "What color do you see a lot of in this picture?" did two of the children finally identify the black shapes. "This one has a lot of black," Courtney said. But then she quickly added, "And a lot of white." In this case with the non-objective Motherwell painting, it seemed that the children's preferences for certain colors may have contributed to their inability to derive a plausible interpretation of the work of art. The black shapes were an integral aspect of the painting's meaning. Yet the children overlooked them, or looked past them to respond to the more appealing colors and shapes in the background.

This finding correlates to Piscitelli's study (1987) findings. She concluded that while props and other creative prompts engaged the children with the works of art, they did not necessarily contribute to the children's appreciation of the art.
Joey compared a cocoon to a circle. Another child said that Miguel Covarrubias' mosaic *The Gift of Life* (1954) "look like" the sea. Erin constantly made association and comparisons: for example, between the mast of Church's ship and the Cross of Jesus, between a detail in a Pre-Columbian Head of Tlaloc and a rooster tail. Harry noted that Oldenburg's Stake Hitch looked like a tree, and unable to identify the subject of an Arp sculpture (*Sculpture Classique*, 1960), he and Anna compared its shape to a bowling pin, a boy, and a knife.

To illustrate another, more involved comparison between works of art in the gallery: After one group discussed Vernet's *Mountain Landscape with an Approaching Storm*, it moved to the adjacent wall to look at Jean-Baptiste-Marie Pierre's *The Abduction of Europa* (1750). The entire group began to discuss the work in terms of its perceived relationship to Vernet's painting. Micheal tied together the paintings' subject matter, indicating that they represented two different scenes from the same story: the people in a boat depicted in Pierre's work were caught in a storm depicted in Vernet's work. Further exploring this relationship between the two paintings, Teresa pointed out common details: they both showed girls (with the "same clothes" noted Micheal), cows, flowers, boats, and rain. Another group made comparisons and associations between the Vernet painting and other paintings in the gallery. After discussing *Mountain Landscape with an Approaching Storm*, Erin chose to look at a still life painting (of flowers) hanging beside it. She explained that she chose it because it was "prettier" than Vernet's work, "because it's got all flowers and no rainstorm." Zoe further associated the subject matter of the two works by stating that the "rain [in Vernet's painting?] growd it [the flowers in the still life]."

This illustrates the "band wagon theory," a way in which the children would scaffold, or build upon ideas expressed by others. In this case, the pirate ship idea went from Martin, to Erin who tied in Peter Pan, to Chad who based his judgment about the work on this connection, and back to Martin who adapted the Peter Pan as well. Erin built on Martin's notion that the baby in the painting wanted food. Later, Martin totally accepted Grant's notion that there was a witch in a painting depicting the ascension into heaven of the Virgin Mary.

Chad and Grant debated over which of two works of art was bigger. Micheal and Teresa argued over the location and action that was taking place in *The Witches*. Martin argued with Zoe about a portrait of a pink lady being a witch. Also, Erin did not just accept the teacher's interpretation that the *Peaceable Kingdom* mural/sculpture was different from the original painting by Hicks: "It doesn't look different to me." She and Martin later argued about whether a painting depicted the Virgin Mary or a witch. The museum teacher asked if it was okay to have different opinions, and the children responded "no." Yet, they also didn't like it when someone else "stole" another comments/observations.

Following a comment by Chad, Grant changed his mind about there not being water in *The Icebergs*.

She might have asked: What is water like? (cold, wet, blue, transparent, like glass) When do we see water? (lakes, rivers, oceans, waterfalls, rain) Is this work of art cold, wet, blue, like glass? Can you see through it? Does it look like a waterfall, rain, or glass?

Erin associated the tunnel with the cave in the story of "Daniel and the Lion's Den" And when Martin associated the boat wreckage (though no one ever identified it as a boat or a ship) with pirates, Erin in turn related pirates to the story of "Peter Pan and Captain Hook." Chad actually used this association as a basis for his judgment of the painting, stating later that he liked it "just a little bit, 'cause. . .well it's just sad because the pirate ship that Captain [Hook] always flies with. . .and he's bad." These personal associations might have led to meaningful, plausible interpretations of the work of art. The feelings or sentiments expressed with regard to the stories might have been related to the sense of isolation, sadness, and
vulnerability conveyed in *The Icebergs*. However these connections were not explored. Members of another group also made associations between details in the painting and childhood stories. The tunnel, for example, conjured up images from the story of "The Three Billy Goats Gruff" which they excitedly acted out for the museum teacher. However, the children were able to abandon that association to focus on actual details from the work, engage in more meaningful discourse and perhaps, achieve deeper levels of understanding about the painting.

30 Later, Micheal summarized his theory more eloquently: "Uh, I know what happened. Uh that little rock came down and crashed and it WOOSH, BAM went into the rocks. The other people got stuck there."

31 Teresa said that she saw ice melting in the water.

32 The museum teacher used a line of inquiry with one group to explain how the artist used her/his imagination to depict "things that aren't really there." During another group's visit, when asked where the artist got his idea, Erin stated, "Maybe in a place just like this but now it's not here anymore." Micheal and Teresa said the painting was "not real" suggesting that it did not represent an actual place or subject matter.

33 Earlier while talking about where the people in *The Icebergs* were, Micheal offered, "Maybe in the devil." Recognizing that she had a different definition of the term, Teresa asked him, "What's the devil?" Micheal explained, "The devil where ugly people and bad people are. That's the devil." Teresa did not accept his definition of the devil as a place rather than an entity: "That's in the devil?. . .I don't see no devil in there." On another day, Micheal said that the people in a Vernet painting were "in the devil."

34 It is important to note that Teresa continues to assimilate Micheal's language, his use of the term *devil*.

35 Many of the children believed that the people in the painting were hurrying home to the village. Erin (Group B) and Teresa (Group C) thought they were fleeing to the castle because it was closer, higher, and more practical. For some children the castle was the king's home (Courtney). For others it was heaven (Chad), or (as Erin thought) simply a place to seek shelter from the rain.

36 As suggested in previous sections, the concept of external clues is used to refer to facts and information about the work of art, versus perceptions or information achieved in response to the work of art. Such clues may include knowledge of art history and theories of art.

37 The museum teacher began the story, "Long, long, long, long time ago, long time ago before there were cars, before there were airplanes, before there were telephones, before there were refrigerators, there was a man. And he was a very powerful man. And he was called the King of War. He was a big man. And his wife had two babies, baby twins--that were born at the same time. Right? And he was really upset because this man, this big king, he wanted to be king for a looong time. And he was afraid that his two little twin boys would grow up and they might want to be the King of War. And he said, "No, no, no, no, no, we're not gonna have that. So I'm gonna take these babies." He did something really bad. "I'm gonna take these babies out into the forest and I'm gonna leave them there." What would happen to a baby if you took it out in the forest and left it there? (Teresa: It would cry.)...[Then] a nice wolf came, a nice mama wolf came, and she took care of those babies. And she fed the babies and kept them warm at night snuggled up next to 'em, and protected them and gave them things to play with. And she took really good care of them till they were a little bit older. And then, a really nice man found the babies. He said, "Oh these babies need a home. I'm gonna take these babies home and we're gonna take care of them. And we're gonna raise them like our own sons and give them a good home and a safe home. And so the man gathered up the babies and he walked and walked and walked and walked and walked a really long way till he got to his home and to his wife. He said, "Look what I found." And what do you think she said? (Teresa: Let's keep 'em.) Yea.
She said, "Oh, let's take care of them and love them and protect them." And then what happened? (Teresa: What?) The boys grew up to big and strong and very smart. And they decided that they wanted to be good. They didn't want to be like their dad and be the King of War. They wanted to be good. And so one of them started a city. And that city is still there today. It's called Rome. It's a really big city in Italy. And that's a long time ago."

38 "A long time ago, a long time ago before people knew all the reasons that things happened, they used to make up...stories to explain why things happen. And this is one of those stories that they made up a long time ago. It's called a myth."

39 The reader might note that this definition and use of the term context differs from Falk and Dierking's (2000) use of the term. They use it to describe a realm of influence-personal, sociocultural, or physical-that affects museum learning.

40 See previous endnote. While museum researchers may use the term context to refer influences affecting visitors' learning experiences, the term is used here to refer to the mindset one brings to a work of art.

41 This is evidenced in an approach for looking at works of art that is based on Housen's theory of aesthetic development. Housen and Phillip Yenawine (1991) developed the approach (for use with reproductions or original works of art) and call it Visual Thinking Strategies (VTS). Acknowledging the value of social interaction in learning, VTS is a group approach in which participants are encouraged to build on the ideas expressed by others. It begins an exploration of a work of art with the simple question: What is going on here? The participants' responses are probed when the facilitator asks: Why do you think that? To avoid conveying the idea that there is a single, correct interpretation, the facilitator encourages participants to respond to these questions without any external clues, or information about the work. Emphasis therefore, is placed not on the interpretation given, but rather on the reasons/reasoning one offers to explain her/his response. Since, as Housen asserts, aesthetic understanding is a developmental process, it is hoped that over time and with repeated exposure to more complex works of art, the VTS approach will lead to more meaningful discourse and higher levels of understanding.