Paired Conversations of Adult Museum Visitors in Front of Works of Art

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PAIRED CONVERSATIONS OF ADULT MUSEUM VISITORS
IN FRONT OF WORKS OF ART

By

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ABSTRACT

Works of art have been referred to as a good source of fuel for the engagement of art museum visitors, thus art museum education researchers and practitioners have sought to create opportunities active social interactions between visitors related to the art they view in museums. However, research investigating different ways to encourage active interaction between visitors, particularly adult visitors, has not proliferated, in part due to the lack of baseline data on aspects of experiences of art museum visitors in interaction with each other.

The purpose of this study was to explore the nature of conversations between visitors in an art museum gallery. The study examined the experiences of 40 adult individuals in pairs in two rounds of data collection in order to explore the content and verbal interaction of conversation of visitors in an art museum gallery. The conversations of participants in front of particular works of art in the art museum gallery were audio-taped following the participants’ completion of background information questionnaires. Individual and comparative analyses of the conversations were conducted to gain insight into the content and nature of the interactions between each pair, with attention to both verbal and nonverbal characteristics. The analyses elucidated the characteristics and commonalities of these experiences according to type of visitors. The results revealed that 1) adults attempted to make sense of what they saw through talk with the other member by exchanging individual observations in conjunction with a variety of personal resources, 2) adults observed artworks in association with the art museum space and materials, and 3) adults had more involvement in meaning-making through conversation, as continuing steps of reflective and promotive processes between pair members. The study concluded with suggestions for future research and suggested practices for exploring the conversational experiences of various types of visitor groups as a means of facilitating intriguing social interaction in the art museum or of planning art museum education programs.
CHAPTER 1
INTRODUCTION

Works of art become more meaningful when people begin to carefully perceive and actively engage with them (Barrett, 2003). Accordingly, art museums seek to enliven viewers’ encounters with works of art so as to stimulate curiosity and arouse questions (Griffin, 2003). Much of the thinking about meaning-making in art museums is based on the notion that understanding art is an endeavor that is both individual and communal (Barrett, 2003; Sullivan, 1993). Some researchers have asserted that individuals can best engage with works of art by seeking answers about the work in response to their own interests and curiosity, which arise in conjunction with their personal contexts and worldviews (Barrett, 2003; Hein, 1998). In addition, researchers with a constructivist perspective have emphasized the importance of social interaction for fostering individual learning in art museums (Hein, 1998; Hooper-Greenhill, 1994; Villeneuve & Love, 2007). In fact, works of art are regarded as a good source of active social interaction in art museum galleries because they present topics that can fuel intriguing conversations (Barrett, 2003; Mayer, 2007). For these reasons, researchers have focused increasingly on how to create more active and meaningful social interaction among visitors to art museum galleries (Keller et al., 2004; Lankford, 2002; Mayer, 2005, 2007; Villeneuve & Love, 2007).

Museum educators have used a number of interactive educative methods to enhance social interaction in museums, such as teacher (expert) facilitation or teacher-led (or expert-led) conversations (Mayer, 2007; Villeneuve & Love, 2007; Zander, 2004). However, many visitors who come to museums do not have the opportunity or the desire to talk with educators or other experts (Ebitz, 2007), so the bulk of unmediated social interaction in galleries occurs between visitors as peer collaborative conversations. Conversations between visitors, as a form of visitor engagement, should be considered an important element in the construction of their museum
experience. Because very little research in the art museum education field has explored such conversations, this study examined the characteristics of paired conversations between adult visitors to art museum galleries in order to shed light on the understanding research in museum education about the nature of visitor conversation between visitors.

**Statement of Problem**

The primary motivation for this study stemmed from the growing awareness in the museum education arena of the need to look more closely at the value of cooperative participation between visitors, particularly from a constructivist perspective. The insights of constructivist educational research provide a strong conceptual framework for and connection to museum education research, since museum-based learning is a constructive act, a cumulative and long-term process that takes place within various contexts (Falk & Dierking, 2000; Falk, Dierking, & Foutz, 2007; Hein, 1995, 2006). Research in museum education has stressed the importance of the role of experts in facilitating the visitor’s construction of a cumulative sense of meaning (Barrett, 2008; Falk & Dierking, 2000; Falk, Dierking, & Foutz, 2007). Researchers have highlighted the need to help visitors create a sense of meaning by creating associations between the art they view and the long-term process of individual life, for instance, by helping them make connections between the familiar and unfamiliar (Egan, 1988; Hein, 1998). In addition, designing participatory environments has been stressed as a means of helping individuals' cumulative process of meaning-making (Falk & Dierking, 2000; Hein, 1998, 2006; Hooper-Greenhill, 1994; Lankford, 2002; Mayer, 2005, 2007).

Consistent with this emphasis on cumulative characteristics in constructive learning, then, research in museum education has pointed to the importance of such direct social interaction as talking with companions as a meaning-making activity in museum settings (Falk & Dierking, 2000; Hein, 1998). Related insights have led museum educators to move toward the use of participation, cooperative learning, peer learning, and reciprocal teaching in museum settings (Johnson & Johnson, 1987; Palinscar & Brown, 1984; Slavin, 1995). Current museum education researchers consider conversations between visitors, in particular, to be a good means by which
visitors can be exposed to multiple perspectives (Leinhardt & Knutson, 2002, 2004; Mayer, 2005, 2007; McKay & Monteverde, 2003). A major benefit of conversations between visitors as a form of peer collaboration is their potential to increase more talking about objects in museums and greater emotional involvement within the largely socially autonomous context of the museum (Gambrell, 1992; Johnson & Johnson, 1987).

According to Lachapelle (2007), non-experts, in conversations with experts, feel overwhelmed by the differences in their knowledge and authority. Thus, many individuals may consider conversations with peers a common and comfortable way to share ideas and information and construct meaning from their museum experience. Recent museum education research, which has asserted the importance of developing participatory, fun, creative, and open-ended learning methods, mostly has agreed that social interaction between visitors somehow stimulates a better museum experience (Falk & Dierking, 2000, Falk et al., 2006; Hein, 1996a, 1998; Lankford, 2002; Mayer, 2005, 2007; Zander, 2004). There is little evidence, however, of just how visitor conversations, as social interaction, influence the museum experience (Packer, 2004). Thus, this study of the nature of conversations between pairs of adult visitors in the art museum gallery may provide insights about how people construct their experience in art museums through conversation, and provide a basis for future research. Further, this study may provide insights for museum practitioners about how to facilitate paired conversations in the art museum.

Research in museum education has found that adult visitors come to museums for a variety of reasons: to satisfy the joy of learning, to meet people socially, to pursue a hobby, to fill time productively, to seek knowledge, to fill in the blanks of their previous education, to help in their present job, and to prepare for a new career (Falk & Dierking, 1992, 2000; Lamdin, 1997). The difficulties of researching and promoting adult learning in museums, then, may be related to the tremendous complexity in the variety of experiences, learning preferences, and motivations of individual adults (Sachatello-Sawyer et al., 2002). After a great deal of pedagogical trial-and-error among museum educators seeking to solve this challenge, museum education researchers
have come to consider self-directed learning as a useful type of museum-based learning for adult museum visitors, since it accommodates the wide range of preferences, motivations, knowledge, and learning styles of adult visitors (Falk & Dierking, 2000; Hein, 1995, 1998, 2006b; Hooper-Greenhill, 1999). Thus, another reason for this study is that it can help to elucidate the means by which such learning occurs through conversations between adult visitors. Although research about adult museum visitors’ social interaction has been relatively rare (Falk & Dierking, 2000; Rounds, 1999; Silverman, 1995, 1999; Stainton, 2002), a number of studies have been conducted on family learning in museums (Borun, et al., 1997; Dierking, 1989; Falk & Dierking, 2000; Folk, 2007; Hood, 1989; Kelly, 2004; McManus, 1994). In addition, since schoolchildren have been considered a primary museum visitor group, many publications have focused on student learning experiences in order to develop pedagogies and create successful partnerships between schools and museums (Arias & Gray, 2007; Adams & Luke, 2000; Falk & Dierking, 2000; IMLS, 2002; Harrison & Naef, 1985; Hirzy, 1992; Kydd, 2004; Liu, 2007; Schwartz, 2005).

According to survey research by the Smithsonian Institution (2004), 39% of visitor groups across all the Smithsonian museums (including American subject museums, art museums, and science museums) were all-adult groups. Typically, 51% of visitor groups in art museums were all-adult groups which was a largest percentage among all kinds of Smithsonian museums (compared with 44% in American subject museums, and 37% of science museums). The sizable number of adult visitors to the Smithsonian museums adds substance to the contention that the experiences of adult museum visitors deserve careful consideration. In addition, Sachatello-Sawyer’s (1996) survey of 110 museum educators revealed that of the 94% of museums that provided some type of adult museum program, only 27% were designed for adults, while 73% were designed for children and families. These findings, in conjunction with those of the Smithsonian museums, suggest that museum educators need to think more about adults as a specific museum visitor group.
Purposes and Objectives of the Study

The purpose of this study was to understand the nature of the conversation as verbal interaction between museum visitors by observing the conversations of adult pairs in front of a work of art in the art museum gallery. The objectives of the study were to: 1) analyze the content of paired conversations in the art museum, 2) investigate the verbal interactions of conversations within adult pairs, and 3) provide ideas for future research and practice in art museum education.

Research Questions

The guiding research question for this study was: What is the nature of the conversation that takes place between adult pairs in front of works of art in the museum gallery?

The supporting research questions were:

1. What are the contents of their paired conversations?
2. What are the verbal interactions as they discuss the works of art in the paired conversations?

Conceptual Framework

A study’s conceptual framework is the foundation on which the research design is built. In this study, the conceptual framework was based on the constructivist view of museum learning and on cooperative learning theory. Based on the understanding of constructivism in museum education research, cooperative learning theory provided insights to understand particular nature of verbal interactions in learning. These theoretical frameworks were important to the study because they provided a rationale for the research focus and informed the assumptions of the researcher.

Constructivist Perspectives on Museum Learning

In museums, which are widely accepted as informal learning contexts (Falk & Dierking, 1992, 2000; Falk et al., 2007; Hein, 1998), visitors learn through their own individual processes of meaning-making, incorporating all sorts of complex everyday life experiences. With this understanding, the focus of art museum education theory has shifted from ideas about simply showing works of art to ideas about stimulating visitor encounters with all the materials in the art

Constructivism is a psychological and philosophical perspective, the tenets of which have been adapted by educational researchers for a variety of purposes. The learning theories of Piaget (1952, 1971, 1972) and Vygotsky (1962/1978) are at the root of constructivism (Bransford et al., 1999; Bredo, 1997; Schunk, 2008). In Piagetian theory, learning is the continual process of constructing knowledge through transformation, reflection, and sharing between a person and objects through action (Beilin, 1989; Piaget, 1971, 1972). Vygotsky’s focus was on the way people construct learning in interpersonal cultural-historical social interactions using personal and cultural transmission tools, including language and other symbols (Bredo, 1997; Meece, 2002; Schunk, 2008; Tudge & Winterhoff, 1993; Vygotsky, 1962/1978). Vygotsky (1962/1978) characterized learning as socially negotiated, and his sociocultural view of constructive learning has strongly influenced museum education research, in part because it is well-suited to the informal character of museum learning (Falk & Dierking, 2000; Vygotsky, 1962/1978).

In adapting the constructivist view of learning, museum education scholars frequently have stressed, the importance of visitors’ prior knowledge, the individual nature of the construction of meaning from new experience (in the museum visit), individual, and social interactions (Anderson et al., 2007; Borun et al., 1997; Hein, 1995). The museum education literature from a constructivist perspective commonly characterizes learning as conceptual change that occurs through the social construction of knowledge (Falk & Dierking, 1992, 2000; Hein, 1995, 1998). Specific factors thought to influence learning include visitors’ prior knowledge, the individual differences in constructing meaning, nature of the learning context, and the degree of social interaction (Anderson et al., 2007; Falk & Dierking, 2002; Falk et al., 2007).
Among various perspectives within a constructivist paradigm, two particular perspectives within the constructivist paradigm were prominent in shaping this study: the social construction of knowledge perspective and the human constructivist view of learning. These two perspectives guided the understanding and interpretation of the participant conversations that provided the data for the study. The social construction of knowledge perspective led me to view the learning of participants as meaning-making within their individual physical, social, and personal contexts (Falk & Dierking, 2002; Gilbert & Priest, 1997). According to Falk and Dierking (1997), learning is “the process of applying prior knowledge and experience to new experience” (p. 216), and is generally mediated in interaction with other individuals. The human constructivist view of learning provides another interesting application of the constructivist perspective in museum education. Human constructivist theory regards human learning as a process of meaning-making through the acquisition and modification of concepts and concept relationships that occur through the use of language in the natural world (Mintzes et al., 1991). Thus, the human constructivist perspective asserts that the concepts individuals form are “products of diverse personal experiences, observations of objects and events, culture, language, and explanations” (Anderson et al., 2003, p. 180).

In regard to learning in an informal setting, such as a museum, Anderson et al. (2003) has suggested that the human constructivist perspective serves as an appropriate framework for museum education research because museums tend to be places where individual visitors generally use prior knowledge in actively constructing new knowledge. The human constructivist perspective, then, guided the analysis of the conversation data in this study. The statements made by individuals in conversation with each other thus were seen as a complex set of diverse personal epistemic resources and observations of participants in this study. In addition, I used the human constructivist view of learning as gradual and assimilative (Anderson et al., 2003; Mintzes et al., 1991), to guide my emergent conceptualizations of the participants’ experiences as represented by their conversations.
Cooperative Learning Theory

Along with constructivist perspectives, insights from research on cooperative learning theory, particularly in regard to peer interaction, provided guidance in investigating the nature of the participants’ verbal interactions that occurred through conversations in museums. Educational researchers have focused considerable attention on cooperative learning, which refers to a group-centered learning theory that advocates the value of individuals engaging with the teacher, researcher, or peers as a means of personal and group learning (Johnson & Johnson, 1987; Johnson, Johnson, & Holubec, 1992; Slavin, 1995). Beginning in the 20th century, such cooperative teaching methods as discussion, conversation, and dialogue came to be widely used to promote critical thinking and socially interactive and high-quality learning. The following principles summarize the major tenets of cooperative learning theories in education:

1. Cooperative learning theory assumes that individuals share natural interdependences in living or working together to achieve tasks, with naturally perceived responsibility for their own behavior and learning (Cohen, 1986; Deci & Ryan, 1985; Johnson & Johnson, 1987, 1994; Sharan, 1994). With diverse strengths, interests, expertise, experience, knowledge, perspectives, and personalities, individuals depend upon one another in groups – friendship groups, family groups, work teams, community groups, and sports teams (Clarke, 1994).

2. Cooperative learning theory empowers learners and teammates to help each other to solve problems (Slavin, 1991, 1995). The purpose of cooperative learning is to make each member a stronger individual with maximized achievement in his or her own right (Johnson, Johnson, 1987; Johnson, Johnson, & Smith, 1991).

3. Cooperative learning requires four basic elements: positive interdependence, face-to-face interaction, individual accountability, and interpersonal and small-group skills (Johnson & Johnson, 1987, 1994a; Johnson, Johnson, & Smith, 1991). Positive interdependence exists when learners perceive their natural interdependences with each other, such that they are linked with others in such a way that they cannot
succeed without coordinating with others (Clarke, 1994; Deci & Ryan, 1985; Johnson & Johnson, 1987, 1994a; Johnson, Johnson, & Smith, 1991). *Face-to-face interaction* is the interaction patterns and verbal interchange among learners that is fostered by positive interdependence that affect educational outcomes (Johnson & Johnson, 1987; Johnson, Johnson, & Smith, 1991). *Individual accountability* is about individuals’ mastering the assigned materials for achieving learning outcome. Learners are required to use *interpersonal and small-group skills* appropriately to help all group members to maintain effective working relationships.

4. Cooperative learning theory emphasizes the importance of process-product learning over learning outcomes—which are extended critical thinking, metacognitive awareness, conceptual understanding, problem-solving ability, moral development, attitude change, and communication skills through learning process, based on the constructivist point of view (Birch, 1951; Driscoll, 2000; Lefford, 1946; Henning, 2008; Johnson & Johnson, 1994b; Kuhn, 2005; Parnes & Harding, 1962; Vygotsky, 1962/1978).

5. Cooperative learning encourages low-achieving learners to become more confident through peer interaction (Corcoran & Sim, 2009; Johnson & Johnson, 1987, 1994a; Miliken, Bartel, & Kurtzberg, 2003).

Cooperative learning theory provides a rationale for exploring the nature and aspects of the verbal interactions that occurred in the course of the conversations between participants in this study. Major principles from cooperative learning theory assisted me in interpreting the underlying nature of these verbal interactions and the co-construction of meaning that occurred through the conversations.

**Research Design**

In order to explore the nature of paired conversations, a constructivist research approach was used to design the procedure and analyze the resulting data. The primary sources of data included the written transcripts of the conversations between adult museum visitor pairs, written
questionnaires, and researcher field notes. In order to obtain data on the conversations of adult museum visitor pairs, I asked 20 all-adult pairs (40 individuals) who were visiting the Florida State University Museum of Fine Arts (MOFA) to allow me to record their paired conversations in front of the art, and to answer of a questionnaire. The recordings were transcribed and subsequently content analyzed.

**Assumptions of the Study**

Based on a preliminary examination of current museum research and education research, this study made the constructivist assumption that learners have prior knowledge that they can access. Further, I assumed that, given the opportunity, museum visitor pairs would attempt to construct interpretations of works of art in the museum.

**Significance of the Study**

Many museum education researchers have asserted that interpersonal interactions between visitors can improve the construction of meaning by museum visitors (Brooks et al., 2005; Falk & Dierking, 2000; Hein, 1998, 2006; Mayer, 2005, 2007). Yet, although art museum education research continues to emphasize the importance of empowering visitors as active builders of personally and interpersonally relevant meaning (Mayer, 2007; Roberts, 1997), understandings about how to facilitate such active interpersonal interaction have not grown as rapidly (Griffin & Symington, 1997; Mayer, 2007). This study, then, can benefit museum education researchers and practitioners by enlarging their insights about how people construct their experiences in art museums. Further, this study can stimulate future research and practice by serving as a preliminary exploration into the content and nature of museum visitor conversations.

**Limitations of the Study**

The reader should consider the following limitations of this study:

1. The site for this study was a university art museum, so the vast majority of visitors to the museum were university students.
2. Audio-recording of participants’ conversation and presence of the researcher had the potential to influence the content and behaviors of the participants in their conversation.

3. Audio recording did not capture the body language of the subjects as they discussed the works of art. As a result, the data sources were limited to the verbal interactions with a few behaviors from the researcher’s field notes.

**Definition of Terms**

*Adult Museum Visitors:* Museum visitors, age 18 or older, who are not working or volunteering at the museum, but who visit the museum to experience an exhibition or programming.

*Cooperative Learning:* A group-centered learning method that encourages learners to discuss an issue or problem (Bormann, 1975; Johnson & Johnson, 1987, 1994a; Henning, 2008). In cooperative learning groups, each member should have individual accountability for the goal of the cooperative learning, share responsibility for the group’s actions, and work collaboratively (Johnson & Johnson 1987, 1994a).

*Conversation:* In this study, the day-to-day talk between two or more people in order to tell a story, strengthen a relationship, solve a problem, or exchange opinions. The educational benefit of conversation is to invite the learner to participate in an engagement between real life and an issue at a deep level (Noddings, 1984, 2002; Yankelovich, 1999).

*Meaning-making:* In art education research, a learning process by which individuals formulate and construct thoughts and meaning about art through encounters, expressions, and actions (Csikszentmihalyi & Robinson, 1990; Duncum, 1989; Sullivan, 1993). Meaning-making is a negotiated process that occurs individually by one person or collaboratively between individuals such that through individual exploration and social interactions, person(s) make a sense of meaning of art.

*Museum Education Program:* Programs designed to engage the community, school, or its members, to enhance museum exhibitions, and to provide understanding about a museum collection. Education programs include planned activities like docent training, tours, teacher
training, school programs, special programs, events, workshops, and online programs, as well as produced materials, like newsletters, publications, labels, and hands-on materials.

*Paired Conversation:* Reciprocal conversation between two museum visitors with no involvement of educators in an art museum gallery. In this research, I use designated multiple terms synonymously including visitor-visitor conversation to make the term clear that no educator is involved.

**Chapter Summary**

Based on the considerable attention to constructivism in museum education research, cooperative learning is regarded as an effective means for promoting high quality, socially-negotiated constructive learning (Hein, 1996a; Falk & Dierking, 2000; Mayer, 2005, 2007; McDermott, 1990; Vygotsky, 1962/1978). Within this context, this study explored visitor conversation in art museums by examining the characteristics and the content of paired conversation between adult pairs. In the next chapter, the literature on museum education and cooperative learning is presented.
CHAPTER 2

REVIEW OF LITERATURE

This chapter examines research on meaning-making in art from the perspectives of art criticism and art education. In addition, it reviews research on the educational role of the art museum as a representative system of the multiplicity of meanings in art, and cooperative learning theory, both from education and museum education research. The first section explores a sense of meaning in art and meaning-making in art. The second section reviews the literature on the history and educational functions of art museums in order to discuss the art museum as a public forum. The third section examines current trends in museum education theory, with particular attention to constructive perspectives. The fourth section discusses cooperative learning theory in education research, and the last section examines cooperative learning in art museum education theory.

Making Meaning of Art

A Sense of Meaning in Art

The postmodern view that meaning is socially constructed and changes according to time, place, and context, is widely accepted today (Berger, 1972; Bourgeois, 1996; Danto, 1981; Sullivan, 1993). The recognition of this multiplicity of meanings subjects the symbolic codes and cultural conventions of visual arts to scrutiny. Thus, works of art are seen as containing and reflecting diverse social realities, contexts, and social structures or dimensions that reflect a society (Berger, 1972; Dissanayke, 1992). Goodman (1978) valued artworks because artworks provide powerful insights, valuable information, and new knowledge.

Arthur Danto (1981; 1998), an art critic, viewed artworks as things of aboutness. By aboutness, Danto meant that a work of art is about something in the part of the world from which it emerged. Carroll (1997) summarized five major propositions inherent in Danto’s conception of art: 1) a work of art is about something, 2) a work of art projects a point of view, 3) a work of art
projects this point of view by rhetorical means, 4) a work of art requires interpretation and, 5) a work and its interpretation require an art-historical context. Danto’s theory of art has had a significant influence on many art critics. Barrett (2003, 2008) outlined principles of art interpretation based on Danto’s assertion that “artworks are always about something” (p. 198). In addition, this study is grounded in an understanding of the nature of art based on Danto’s theory. Barrett (2003) and Thom (2000) emphasized the importance of questioning and responding to art as “about something” in the world. In order to interpret and make sense of art, they have argued, people must pay attention to cognition, to examining how art reflects the mind’s perception of reality. Thom (2000) stated that in the act of interpreting art, art is best seen as “representing something, or expressing something, or being about something, or being a response to something, or belonging in a certain tradition, or exhibiting certain formal features, etc.” (p.64). Researchers in art criticism and art education have treated interpreting art as similar to making meaning in works of art (Barrett, 2003; Berger, 1972; Tavin, 2003; Thom, 2000). The term “meaning,” as it refers to interpreting a work of art, refers to the process of making the work understandable to the self and others (Carroll, 1997; Sullivan, 1997). Thus, making or constructing meaning in relation to works of art often refers to the interpretation of works of art (Barrett, 2000, 2003; Leinhardt & Knutson, 2004; Goodman, 1978; Sullivan, 1997). Barrett (2003) described the elements involved in constructing meaning about works of art as subject matter, medium, form, and context. He argued that these elements may serve not only as a definition of interpretation but also as a guiding methodology for interpreting works of art.

**Meaning-Making**

*Educational research.* Researchers in linguistics have asserted that because meaning arises within a meaning-making system that is formed by language, it is a process in which people employ understandings that are derived from the community’s conception of reality (Burling, 1992; Janko, 2007). Educational researchers have viewed meaning-making as a learning process that individuals employ through participation and interaction (Bruner, 1990; Egan, 1990). Accordingly, acts of meaning-making occur through one or both of two interpretive
processes: personal and interpersonal. Consistent with this notion, Barrett (2003) has noted in his principles for interpreting art that “interpreting art is an endeavor that is both individual and communal” (p. 220).

Some perspectives on personal meaning-making are based on Pragmatic philosophy (Barrett, 2003). John Dewey, a representative Pragmatist, argued and rejected the traditional aesthetic notion of understanding or experiencing the world as an absolute entity, and emphasized multiplicity and continuity in the experience of the world (Dewey, 1934/2005; Sleeper, 1998). In the Pragmatist view, there are many ways to represent the world, and many descriptions (including one’s self-description) that need to be considered when we ask questions and solve problems in the world (Dewey, 1934/2005; Rorty, 1992). In *The Quest for Certainty* (1929/1981), Dewey objected to dualistic distinctions between mind and body, ideal and actual, knowledge and belief, and science and art. Although there are several reasons for Dewey’s rejection of dualisms, Westbrook (1991) emphasized the frequent association of one side of a dichotomy with a higher moral value than the other, for instance, mind over matter, soul over body, thought over action, end over means or fine art over applied art. Dewey believed that values must be based on the result of particular actions and an experience in reality, not on presumed categorical distinctions (Dewey, 1929/1981; Westbrook, 1991). Accordingly, he asserted, “as meaning so directly embodied in experience as to be its own illuminated meaning, is the only signification that expresses the function of sense organs when they are carried to full realization” (Dewey, 1934/2005, p. 22). In his emphasis on reflective processes in response to ambiguity in one’s life, Dewey’s critique of dualisms was related to his definition of experience (Dewey, 1929/1981; Hein, 2004).

Pragmatic views moved the concept of learning from the mere acquisition of knowledge to understanding (Rorty, 1992). For Pragmatists, having personally meaningful experiences that can rearrange one’s priorities or change one’s life is more important than figuring out the essence of the world. Accordingly, Pragmatists viewed the interpretation or appreciation of works of art as a form of understanding based on personal meaning-making from within one’s own life.
Dewey (1934/2005) insisted that “art is thus prefigured in the very processes of living” (p. 25). Pragmatists argued that we appropriate a work of art to make it our own, and allow a work of art to rearrange our life (Dewey, 1929/1981; Rorty, 1992). Dewey thought that art fixes standards of enjoyment, and thus determines what should be desired. He (1934/2005) wrote, “Art is not nature, but is nature transformed by entering into new relationships where it evokes a new emotional responses” (p. 82).

**Art education research.** Art education research stresses the importance of communal or shared interpersonal meaning-making in conjunction with personal meaning-making about an artwork (Barrett, 2003; Csikszentmihalyi & Robinson, 1990; Sullivan, 1993). Barrett (2003) has pointed out the risk of a wholly individual interpretation of an artwork as being too personal, and often without adequate connection to the artwork that is being interpreted. Based on this idea, researchers have argued for the need for a negotiation process with others in deriving acceptable and meaningful interpretations of works of art (Barrett, 2003; Duncum, 1989). Such perspectives are based on the constructivist view that learning takes place within the realm of participation and interaction, and highlights the importance of social support in teaching and learning (Schunk, 2008; Vygotsky, 1962/1978).

Constructivist perspectives have characterized meaning-making as a learning process in which individual differences and collaborative conceptions to create meaningful experiences (Bruner, 1990; Egan, 1990). This view has resulted in such pedagogical innovations as cooperative learning, peer learning, and reciprocal teaching (Johnson & Johnson, 1987, 1994a; Slavin, 1991, 1995). (The teaching and learning strategy and characteristics of cooperative learning will be discussed later in this chapter.) Thus, in art education research, meaning-making has come to be seen as a learning process by which individuals construct meaning not only from personal encounters with works of art but from communal connections with others and other sources (Csikszentmihalyi & Robinson, 1990; Duncum, 1989; Sullivan, 1993).

To be understandable to the individual, then, meanings can be derived from one’s own individual feelings in response to a work of art. From their experiences with art, individuals may
make meanings through an examination of how a work of art reflects the perceptions of one’s own mind and socio-cultural traditions of reality (Sullivan, 1993). Barrett (2003), would argue, however, that to be understandable to the individual and to others, meanings in art should be shared to develop communal understandings of the art, reasonable that tell more about the artworks, convincing with observational or art historical evidence, or enlightening in conjunction with the work and language (Barrett, 2003). Making meanings in art is ongoing reexamination of inquiry and interpretations based on evidences from the art, the socio-cultural context, and individual critical thinking skills.

The Shift in the Role of the Art Museum

The Art Museum as a Place of Learning

According to the International Council of Museums (ICOM) (2001), “museum displays and other facilities should be physically and intellectually accessible to the public during reasonable hours and for regular periods” (2.8, Code of Ethics for Museums). For better public access, museum professionals have experimented with the placement of objects in historic, social, cultural, artistic, or physical contexts that give the visitor the feeling of walking through different periods (Alexander, 1993). Museum professionals also have designed education programs in such a way as to create a more direct and fluent museum learning experience. These efforts are intended to enhance the museum experience for visitors from the community that the museum serves, as well as for others (Hirzy, 1992; Hooper-Greenhill, 1999; ICOM, 2001).

Since 1984, when the American Association of Museums (AAM) Commission on Museums for a New Century renewed its emphasis on public service and education (AAM, 2000), the museum’s educational function increasingly has been “to communicate through a variety of means – from exhibitions to interpreters to electronic media – in many combinations, both within and outside their walls” (Hirzy, 1992, p. 12). Hirzy characterized objects in museums as things “with complex contexts and associated value-laden significance” (p. 12), while Ferguson (2002) defined exhibitions as “the central speaking subjects in the stories about art which institutions and curators tell to themselves and to us” (p. 176). Thus, the art museum
carries messages throughout the whole context of its environment. Each visitor encounters the various constructive contexts or stories based on another context and another layer of meaning, bringing to the place, then, their own individual experiences and values (Hirzy, 1992). When the encounter between the art museum context and the personal context of the visitor occurs, the art museum becomes a site of active meaning-making in relation to art.

**The Evolution of the Educational Role of the Art Museum**

Beginning in the 19th century, museums began to take their educational role more seriously (Hein, 1998; Hooper-Greenhill, 1991). During the 19th century, “the advanced school of self-instruction” (Hooper-Greenhill, 1991, p.25) was regarded as the ideal function of the museum. Still, the relatively static display of objects was typical in museums of the 19th century and the first half of the 20th century (Lord & Lord, 2002). Many early 20th-century museum officials, especially in the United States, believed that the public could be improved by contemplating beautiful art. In this period, art museum directors felt that the aim of art museums was to establish and maintain a high standard of aesthetic taste (Fairbanks, 1918; Zeller, 1989).

In 1908, George Stevens, a staff member of the Toledo Museum of Art, wrote,

> The study of art means much more than the ability to appreciate the good in a painting or marble. It means that we shall be more observing of the harmonies everywhere…when we love the beautiful and only the beautiful, we shall have more harmony among individuals in the home and in civic life. (Toledo Museum, January, 1908, p. 12)

In the last half of the 20th century, the museum-going public increased dramatically (Lord & Lord, 2002), and interest in educating the public likewise increased. The academic literature on museum education grew, and professional positions for museum educators became more widely available (Hein, 2006). Following the popularity of the museum education sessions at the 1976 conference of the National Art Education Association (NAEA), the NAEA created a Museum Education Affiliate in 1978 and a Museum Education Division in 1981 (Caston & Schneider, 2007). Soon after, the American Association of Museums appointed an education committee to study the educational and social challenges facing museums (Roberts, 1997).
According to Edson and Dean (1996), the late 20th century shift in museums, from an acceptance of both social and academic elitism toward an expectation of educating the public, led to two new concepts in museology: public accountability and interactivity. Public accountability refers to the contents of the museum and the responsibility for adequate and appropriate interpretation. In the museum world, interpretation concerns the explanation of an object and its significance through design and display (Ambrose & Paine, 2006; Hooper-Greenhill, 2006; Roberts, 1997). This interpretive, narrative voice of the art museum falls under the epistemological perspective of art history and interdisciplinary knowledge. Dana (1923), an early proponent of art museum education, asserted that the public’s attention is be drawn by this narrative voice “only if attention is given to the interpretation of its possessions in terms they, the people, will understand” (p. 38).

Similarly, Volkert (1991) defined interpretation in the museological context as “translating the meaning of objects” (p. 47) in a way that visitors could readily comprehend. Museum objects are placed in context by an organizing storyline of exhibited objects, which serves as a teaching methodology (Chadbourne, 1991). For this reason, museum curators and educators have been expected to organize, or at least to stimulate and lead, visitors. Thus, museum visitors are placed in a world that emphasizes a specific artistic, social, cultural, historical, or political topic (Bennett, 1995; Roberts, 1997). Visitors first perceive the topic epistemologically, empirically, and emotionally, and then, through the knowledge offered and the context created for them (Bennett, 1995; Roberts, 1997). In this way, museum professionals help people use the museum more fully and involve them with the museum’s contents (Ambrose & Paine, 2006; Edson & Dean, 1996; Lord & Lord, 2002).

Interactivity is promoted in museums in a variety of ways. Art museums have developed diverse approaches in order to encourage visitors to engage with the museum content and to form a relationship with the museum. For example, the Newark Museum constructed special exhibitions that were relevant to minority groups in the community, such as New Jersey Clay Products, German Applied Arts, Primitive African Art, A Newark Industry, and Our Town.
(Grove, 1979). These exhibitions reflect the efforts of museums to reach out to diverse parts of their communities in order to encourage community members to engage more actively and personally.

Interactive elements in exhibitions may be mechanical or electronic – such as lifting a panel to read the answer to a question posed by a graphic, pushing a button to light up positions on a three-dimensional model or map, or viewing a multimedia program (Carrier, 2006; Lord & Lord, 2002). Such technical interactive exhibitions are popular in science museums, history museums, and children’s museums. Thus, the role of the art museum has shifted from displaying to organizing artworks within a democratizing context (Carrier, 2006). As a system of critical representations that include a multiplicity of meanings, the art museum highlights socio-cultural issues, raising the agenda of the present tense and asking interesting or even unanswerable questions (Ferguson, 2002; Marincola, 2006; Rugoff, 2006; Sherman & Rogoff, 1994). The educational power of the art museum is in inspiring viewers to grasp something beyond the immediate experience that it offers (Rugoff, 2006). Art museums enhance people’s ability to appreciate artworks, both by enlivening their encounter with each object and by encouraging them to see how the objects fit in relation to each other (Griffin, 2003; Rugoff, 2006).

**Museum Education Theory**

Museum researchers have sought to identify the skills required to make meaning of art. At a minimum, museum visitors should be able to explore works of art, ask questions, and explore the connections that they find most intriguing (Ferguson, 2002; Rugoff, 2006). It is for this reason that museum education research has focused on how to enable museum visitors to enhance their experience by finding more or richer meanings in works of art.

**Shifts in Museum Education Theory**

Since the inception of museums, the goals of museum-based learning have shifted from simple enlightenment to engaged stimulation. I developed Figure 1 to illustrate the history of art museum education and its purposes.
Since the Louvre opened to the public in 1793, art museums were regarded as places to show off works of art to the public (Hooper-Greenhill, 1991; Lee & Henning, 1975). As Buffington (2007) noted, the Louvre also published inexpensive catalogues for the public. Showing off artworks to the public with few educational considerations was thought to allow visitors to see the beauty of their collections based on the belief that “works of art communicated directly with their beholders and needed little labeling” (Gilman, 1923, as cited in Alexander, 1983, p. 352).

Over time, however, scholars and museum professionals came to define museums as places to enlighten the public (Dana, 1923), and to see art as a means to improve the ideals of society (Dana 1923; Newsom & Silver, 1978). By the early part of the 20th century, museum professionals and scholars believed that the public needed discipline-based knowledge in order to extend this function of the museum (Alexander, 1993; Coleman, 1939; Lehmann, 1995). In the
1970s, with teaching as the keyword for museum education, museum professionals experimented with various educational programs based on the direct transmission of expert interpretations that illuminated works of art, reflecting a view of visitors as passive receivers of curatorially-sanctioned information (Buffington, 2007; Grinder & McCoy, 1985; Mayer, 2007; Newsom & Silver, 1978).

In the 1990s, however, a postmodern emphasis on subjectivity and individual meaning-making in learning theory led to a paradigm shift in museum education. Museum educators began to develop programming with the intention of celebrating a wide spectrum of interpretive choices, diversity, and the visitor’s role as an active builder of personally relevant meaning (Falk & Dierking, 2000; Hein, 1998; Hooper-Greenhill, 1999, 2006; Mayer, 2007; Roberts, 1997). This focus on individual interpretation and diversity led museum education theorists to consider the issue of visual literacy, that is, a group of abilities to make, perceive, or evaluate meanings from sensory experiences such as visible actions, objects, symbols, various types of encounters in one’s environment (Debe, 1969; Elkins, 2008).

According to Mitchell (1995), “the problem of the twenty-first century is the problem of the image” (p. 3). Beginning the late of the twenty century, many museum education theorists began to argue that in our complex visual world, the art museum must help people develop both visual literacy and museum literacy (Eisner & Dobbs, 1986; Roberts, 1997; Temme, 1992). Many felt that perceiving the messages communicated by images had become necessary in understanding artworks and objects in museums. Broudy (1987) asserted that images become messages when, in sensing the images, individuals associate them with value schemata and standardized imagery. Further, in shaping personal value schemata, people interject a model from the world, such as family, school, work, or media, in association with images (Broudy, 1987). Museums, then, began to be discussed as sources for personal value schemata, where learning environments should be designed to resemble those of the real world.

This evolution in museum learning led researchers to advocate more “informal” learning situations (Falk & Dierking, 1992, 2000; Hein, 1998, 2006; Matusov & Rogoff, 1995; Williams,
1985) in which “learners control the means but not the objectives” (Mocker and Spear, 1982, p.4). Falk (2001) described informal learning as “primarily driven by the unique intrinsic needs and interests of the learners” (p.7). The acceptance among museum education scholars of more informal learning in museum education was related to a growing belief of the socially constructed nature of learning and the concept of the visitor as an active learner. This change in the perception of the museum visitor cemented the shift from object-based interpretation to visitor-based learning (Mayer, 2007). In addition, it led museum educators to seek answers to the question: how is the subjective and informal learning of museum visitors best embodied in the museum context? (Falk, 2001; Falk & Dierking, 1992, 2000; Hein, 1998) The focus on subjective learning in museum education research has followed the growth of constructivist learning theory, which is discussed in the next section.

**Constructivist Learning Theory in Museum Education**

*Constructivism and education.* Constructivist ideas are prominent in the field of education and in educational research. The work of cognitive psychologists Piaget (Piaget, 1952; Piaget & Inhelder, 1969) and Vygotsky (1962/1978) formed the roots of constructivism. Piaget described knowledge as a process by which individuals come to understand the real world (Piaget, 1972). Piaget based his theory of cognitive development on the development of intelligence in children. He approached learning, then, in terms of the way an organism adapts to the environment by constructing new forms. Accordingly, one constructs knowledge through a continuous and dynamic process involving transformation, reflection, and sharing related to the human, physical, or empirical properties of objects as they are acted upon (Beilin, 1989; Piaget, 1971, 1972).

Vygotsky’s (1962/1978) view of intellectual development focused on the influence of the social and cultural environment in the construction of knowledge. From Vygotsky’s point of view, humans have the capacity to alter the environment for their own purposes, and this adaptive capacity leads to socially meaningful activity (Bredo, 1997; Kozulin, 1986; Schunk, 2008; Tudge & Winterhoff, 1993). The premise of Vygotsky’s theory is that “humans are
embedded in a social matrix” (Miller, 1993, p. 370). Thus, Vygotsky (1962/1978) asserted, “human learning presupposes a specific social nature and a process by which children grow into the intellectual life of those around them” (p. 88). Vygotsky’s socio-cultural theory stresses the interaction of interpersonal and cultural-historical aspects in intellectual development (Kozulin, 1986; Schunk, 2008). The interaction between individuals and their worlds, which include persons and objects, is cultivated through the cultural transmission of tools such as language or symbols (Meece, 2002; Schunk, 2008), and individual or inherited factors such as mental or physical differences in ability that effect human development (Meece, 2002; Tudge & Winterhoff, 1993).

Vygotsky’s concept of the Zone of Proximal Development (ZPD) became a particularly important influence in the development of cooperative learning. Vygotsky (1962/1978) defined the ZPD 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). In the ZPD, teachers and learners, children and adults, or individuals with capable peers work together through guided participation such that more skilled individuals share cultural tools, knowledge, and skills with those who are less-skilled (Bruner, 1984; Rogoff, 1990; Schunk, 2008). In the ZPD, social interaction aids learning when individuals’ existing understandings are identified and reflected on in conjunction with others in the learning context (Schunk, 2008). Vygotsky’s theory of the ZPD led researchers to investigate the potentialities of active learning with others and resulting the cognitive development of learners when they receive the proper instructional support (Meece, 2002; Schunk, 2008; Tudge & Scrimsher, 1993).

Constructivist theories of learning contend that students learn by building on prior knowledge and through the use of instructional supports that resemble those used by experts in a discipline (Brandford et al., 1999; Cobb, 1994). Constructivism argues that both knowledge and its construction depend on the learner, both personally and socially, and on the premise of active learners (Cobbs & Bowers, 1999; Hein, 1995, 1998, 2006; Schunk, 2008). Bransford et al.
(1999) summarized a body of research on learning, concluding that learning is an active process that requires engagement with the learner’s experience, culture, and learning environment. Further, Bednar et al. (1992) noted, “The constructivist view emphasizes that students should learn to construct multiple perspectives on an issue” (p. 27). Constructivism, then, stresses that a complex set of interactions and negotiations is involved in learning. Since learning is considered to be a self-directed process of knowledge construction and skills acquisition (Knowles, 1970), it best occurs by structuring a curriculum in which knowledge is not presented to students intact, but carefully scaffold through “instructional dialogues” (Leinhardt & Steele, 2005).

However, constructivist learning can occur only if students can “identify and pursue their own learning goals” (Driscoll, 2000, p. 380). Expanding the learners’ awareness of the learning structure, therefore, is a big part of the social constructivist agenda in education. Perkins (1992) suggested that constructivist learning is promoted when students are asked to set their own learning goals. Ackerman (1992) emphasized the importance of allowing learners to experience multiple viewpoints and perspectives about artifacts in order to encourage reflection from multiple viewpoints. According to Driscoll (2000), if learners are aware of the construction of meaning, they will have the creative and critical ability to construct their own worldviews. These understandings are connected to a priority on process-product learning over just learning outcomes, since a meta-cognitive awareness of process can extend the learners’ own creative and critical thinking.

Another way constructivists promote process-product understanding is through an emphasis on socially constructed and negotiated learning, both of which are Vygotskian ideas that involve cooperative learning. Prater (2001) and Driscoll (2000) asserted that collaboration promotes openness to differing viewpoints among learners working together. The constructivists’ perception of cooperative learning will be discussed in a subsequent section.

**Constructivism and museum education.** Museum education research has considered constructivism to be a particularly appealing approach to helping visitors use their previous knowledge and beliefs to conceptualize new meanings (Hein, 1998, 2006; Hooper-Greenhill,
Many museum education researchers have characterized museum learning as an act of constructivist meaning-making between visitors and the museum (Hein, 1995, 1998, 2006; Hooper-Greenhill, 1999; O’Donnell, 1995; Silverman, 1995). Further, there is consensus that the museum is a critical and reflective learning environment. Hooper-Greenhill (1999) stressed the importance of a critical pedagogy in shaping a hermeneutic museum experience incorporating influences from real life.

Constructivism in museum education provides frameworks for understanding the visitor learning experience as an active constructive process that begins with reflective interpretation of museum content based on previous knowledge, experience, and beliefs (Hein, 1995; Hooper-Greenhill, 1999). Such understandings by museum educators involve two intrinsic elements—prior experience and personal construction—as the primary components of life-related museum learning. According to Hein (1995), “the viewer constructs personal knowledge from the exhibit, and the process of gaining knowledge is itself a constructive act” (p. 76). Csikzentmihalyi and Robinson (1990) also described museum learning as personally- and socially-constructed informal learning. One respondent in a study by Csikzentmihalyi and Robinson (1990) described her museum experience as “an experience of finding something that I can respond to at my most profound level, as a human being” (p.65).

Dierking (1996) described museums as enlarging, expanding, and reshaping visitors’ conceptual frameworks based on each visitor’s free choice. Falk and Dierking (2000) argued that individual visitors experience museum learning within the interaction of personal, socio-cultural, and physical museum contexts. Within the personal context, motivation and expectations, prior knowledge, interests, and beliefs, and choice and control come into play as visitors move through the museum. Within the socio-cultural context, visitors who are part of groups experience socio-cultural mediation and mediation facilitated by others. Finally, in the physical context of museums such features as advance organizers and the orientation atmosphere, design, the aesthetics of the museum, events, and the outside environment of the museum all function as part of an exhibition design strategy to help individuals build a unique reality.
In order to create personal and life-related reflective learning experiences, museum professionals develop visitor-centered communication and collaboration (Falk & Dierking, 1992, 2000; Hein, 1996a, 1996b, 1998; Hooper-Greenhill, 1999). The constructivist museum pedagogy promotes higher-order and meta-cognitive learning to find the level at which to engage a wide spectrum of visitors who might have different aesthetic stages, preferences, life experiences, and interests (Ansbacher, 1999; Bransford et al, 1999; Falk, Dierking, & Adams, 2006; Hein, 1995, 1996a, 1998, 2000; Witcomb, 2006). In Csikzenmihalyi and Robinson’s (1990) study, one respondent characterized her social connection experience as “finding a soul I could communicate with within a world where many people are so very different” (p.65). In such a case, social interaction and collaboration can increase learning productivity.

Some research has established a complex connection between the familiar and the unfamiliar in museums (Hein, 1995, 1998). Based on constructivist ideas, Hein (1996a) outlined principles that museums should follow in designing exhibitions and developing education programs to foster active learning: 1) use sensory input to construct meaning involving engagement with the world, 2) structure hands-on involvement, 3) create social activities to influence the learning process, 4) bring out previous knowledge and emotions in the live context for new learning, 5) find the right level for engagement of learners, and 6) remember that learning takes time. Hein also suggested several techniques for facilitating active learning in museums, including participatory exhibitions and programs, social activities between viewers, various entry points that can facilitate the viewer’s use of different sensory modes and stimuli, conceptual bridges between familiar and unfamiliar things, and a variety of ways of promoting a long or return visit.

Many museum education researchers have insisted that it is essential to know who the museum visitors are, that is, “who is visiting, why they are visiting and with whom, what they are doing before and after the visit, what they see and do in the museum, and how all these factors interact and interrelate” (Falk & Dierking, 2000, p. 13). In addition, a constructivist approach frames museum learning as continuous, subjective, and informal (Falk & Dierking,
2000; Gardner, 1999; Hein, 1995, 1998; Williams, 1985). Ansbacher (1999) discussed the importance of creating a learning environment that facilitates museum visitors’ learning by motivating visitors through self-directed instruction and practice. Similarly, Jeffrey-Clay (1998) emphasized the importance of a design that allows visitors to explore objects by creating an organizational framework for an exhibition or museum topic and a collaborative and pleasant environment based on constructivist principles.

**Cooperative Learning Theory**

**The Purposes of Cooperative Learning**

Cooperative learning is a group-centered and student-centered learning method in which students engage with the teacher, researcher, or peers (Corcoran & Sim, 2009; Johnson & Johnson, 1987; Sharan, 1994). Cooperative learning theory is based on the idea that people pay attention to a topic if it relates to their personal context in some way, and further, that group learning helps people access diverse data and opinions better than individual learning. Education researchers believe that cooperative learning improves the achievement of all students (Corcoran & Sim, 2009; Cropley, 2006; Webb et al., 1998).

While the development of and research on different forms of cooperative learning began in the early 1970s (Sharan, 1994), Slavin (1995) dated the earliest social psychology research on cooperation to the 1920s, while Johnson and Johnson (1994a) traced it to the late 19th century. Such early cooperative learning methods were developed for curriculum-free, broadly applicable teaching methods (Slavin & Madden, 1994). In fact, discussion, conversation, and dialogue were advocated as cooperative teaching approaches that would promote democratic values in response to the rise of fascism in Europe in the 1930s (Delamont, 1983). Throughout the 20th century, teaching methods based on cooperative learning spread in response to the increasing recognition of the role of social interaction in learners’ thinking (Henning, 2008).

The purpose of cooperative learning groups is to make each group member a stronger individual in his/her own right, as learners learn better together and subsequently perform better separately (Johnson & Johnson, 1994a). Thus, cooperative learning theory posits that learning
does not take place in isolation, but rather, that social activity improves learning (Cropley, 2006; Webb et al., 1998). The peer interaction involved in cooperative learning also permits the formation of positive social behaviors (Johnson & Johnson, 1987) and the quality of learner achievement (Webb et al., 1998). In addition, cooperative learning offers an environment in which learners serve to motivate each other (Corcoran & Sim, 2009). Students who learn in groups seek more information from each other, are less biased against the views of others, can express their own views more capably, and thus improve the quality of communication (Johnson & Johnson, 1987).

Cooperative learning groups “empower their members by making them feel strong, capable, and committed” (Johnson et al., 1991, p. 9). In cooperative groups, low-achieving learners are able to develop ideas and solve problems by brainstorming with peers (Corcoran & Sim, 2009; Miliken et al., 2003). According to Corcoran and Sim, the learners they studied began to reflect on and take ownership of their learning when their teachers made them work together. Johnson and Johnson (1987) have mentioned that learners are more confident about the value of their ideas when they develop them through communication with peers.

In collaborative learning environments, learners set their own goals within a group, and produce outcomes that reflect the diversity that exists among group members (Corcoran & Sim, 2009; Sharan, 1994). As Johnson and Johnson (1987) have noted,

Working together to achieve a common goal produces higher achievement and greater productivity than does working alone is so well confirmed by so much research that it stands as one of the strongest principles of social and organizational psychology. (p. 40).

If learners must solve a problem, their discussion becomes more active. As a result, educational outcomes are enhanced, and group members’ ability to use meta-cognitive approaches as they learn is more developed than in individual learning settings (Corcoran & Sim, 2009). In an optimal cooperative learning environment, then, learners are self-motivated, share insights, check similarities and differences, and build their learning outcomes (Johnson & Johnson, 1994a; Sharan, 1994).
Basic Elements

The basic assumption about the effects cooperative learning can be summed up in the dictum, “Two heads are better than one.” According to Johnson and Johnson (1987, 1994a), educators who use cooperative learning should understand its four components: positive interdependence, face-to-face promotive interaction, individual accountability, and social skills.

Positive interdependence. Positive interdependence is a basic component of cooperative learning. It refers to cooperative activity between individual learners in small groups that maximizes learning through such actions as sharing resources, providing mutual support, and celebrating their success. In cooperative learning situations, learners have dual responsibilities: learning the assigned materials, and coordinating one’s own efforts with the efforts of the others to complete tasks. These two responsibilities refer to positive interdependence. To strengthen the interdependence of learners in a group, researchers have suggested using such methods as joint rewards (e.g., each member of the best group receives five bonus points), divided resources (e.g., giving each group member a different part of the assignment), and complementary roles (e.g., reader, checker, coach).

Face-to-face promotive interaction. Cooperative learning is advanced by face-to-face promotive interaction, which refers to the efforts of group members to assist each other in achieving tasks and reaching the group’s goals (Johnson & Johnson, 1987, 1994a; Johnson et al., 1991). The characteristics of face-to-face promotive interaction include: providing each other with effective assistance, exchanging needed information and materials, providing feedback, challenging each other’s conclusions, reasoning to promote higher-quality of decision making, advocating the exertion of effort, acting in trusting ways, and being motivated (Johnson & Johnson, 1994a; Johnson et al., 1991). Face-to-face promotive interaction also includes such activities as orally explaining how to solve problems, discussing the concepts being learned, teaching to peers, and connecting present with past learning. All of these efforts are designed to achieve mutual goals with low anxiety and stress (Johnson et al., 1991). Johnson and Johnson
(1994a) suggested that groups of two to four members are optimal for the most effective face-to-face promotive interaction.

**Individual accountability.** Individual accountability exists when the performance of each learner is assessed from feedback given to about the individual and his or her contribution to the group’s performance. Individual accountability can be promoted by clarifying early in a learning process each member’s expected level of participation and share of the work. Researchers have suggested several ways to structure individual accountability for teachers, such as keeping the group small, giving individual tests, observing the frequency of each member’s participation in group work, and assigning roles to individuals.

**Social skills.** The final element in cooperative learning is the appropriate use of social skills to coordinate to achieve mutual goals. Group members in cooperative learning contexts must be taught and encouraged to use social skills like leadership, decision-making, trust-building, communication, and conflict management.

Researchers studying cooperative learning theory have asserted that certain conditions, including clearly perceived positive interdependence, individual accountability and personal responsibility, considerable face-to-face interaction, and the frequent use of interpersonal and social skills, can help lead to productive learning (Johnson & Johnson, 1994a; Johnson et al., 1991). Identifying the key elements of cooperative learning can help educators think about how to best use this approach to improve learning. For museum educators, in particular, the challenge is to determine how to encourage cooperative learning, since art museums are not formal learning environments and museum educators cannot organize long-term cooperative learning activities (Johnson et al., 1992; Johnson & Johnson, 1987, 1994a).

**Pedagogy**

**Types of cooperative learning groups.** According to the guidelines for utilizing Student Teams-Achievement Divisions (STAD), which is a carefully structured classroom team technique that has been among the most extensively researched of all cooperative learning methods (Slavin, 1991), students engaged in group activities can help each other master skills
presented by the teacher (Slavin, 1995). Students in cooperative learning groups may work in pairs and compare answers, discuss discrepancies, help each other solve problems, or quiz each other on content (Slavin, 1995).

According to Johnson et al. (1991), cooperative learning groups can be divided into three types: formal, informal, and base groups. A formal cooperative learning group is a learning group assigned by a teacher to teach specific content. In a formal group, the size of the group and the task to be completed cooperatively are designated by the teacher. Informal cooperative learning groups are casually built during a learning situation. An informal cooperative learning group can set a mood conducive to learning and ensure active cognitive processing of information. Basically, cooperative learning groups involve long-term caring relationships among peers seeking to achieve academic progress; such groups also can improve the quality and quantity of learning. When these three types of cooperative learning groups are used in combination, a highly successful cooperative learning structure can be achieved.

**Launching responding.** Henning (2008) suggested a number of cooperative teaching methods: responding to a reading, reflecting on classroom activities, responding to an observation, and responding to a problem. These teaching approaches are designed to create ambiguity about a topic within the students’ knowledge base, and to stimulate multiple interpretations based on the students’ everyday life experiences.

One way to employ cooperative learning is to begin by having students read a text, discuss and interpret it, and then compare their interpretations (Henning, 2008; Hess & Marri, 2002). The text can be drawn from literature, magazines, newspaper, fiction, case law, plays, or film (Irwin, 2000; Mathis, 2001; McDonnell, 2002). Reflection is accomplished through a classroom activity or series of activities (Henning, 2008), such as debates, skits, plays, service learning projects, role playing, mock trials, or mock elections (Bell, 2002; Smith, 2004). When the activities stretch students beyond their everyday experience, they are especially useful.

Another way to utilize cooperative learning is by asking learners to respond to an observation. Henning (2008) suggested having learners report on what they see and then draw
conclusions. By making observations or by providing visual information, learners present and then respond to a problem or observation. Their responses reveal what interests them, what is important to them, and the level of detail to which they are attending. To elicit multiple responses, educators should ask follow up questions that encourage learners to clarify, reflect on, or elaborate upon their answers.

Henning (2008) also suggested having learners respond to a problem. If the problem falls within the learners’ knowledge base and asks them to express or evaluate their values, the discussion can be launched quickly. A controversial question on a values-based issue allows for multiple responses. The discussion begins with an examination of each learner’s prejudices, and moves to a consideration of how students can compromise with their fellow learners. As the discussion move toward less familiar ideas, educators need to scaffold students’ understanding through teacher-led discussion or other information about less familiar ideas that will, in turn, facilitate continuing discussion.

Creating problem-solving circumstances. Slavin (1995) has suggested that students can teach their teammates to help each other discuss and solve problems. Problem solving discussion stimulates competition among group members or conversation partners (Johnson and Johnson, 1994b; Kuhn, 2005; Parnes & Harding, 1962). Vygotsky (1962/1978) insisted that the origins of intelligence should be sought in people’s social interaction, not in their interaction with the environment. The competition stimulated by problem-solving, then, leads to active (though sometimes negative) responses, and may result in high-quality outcomes.

The Creative Problem Solving (CPS) model as a cooperative learning method stresses both the process of cooperative learning and the use of a problem as the basis of discussion (Corcoran & Sim, 2009; Gordon, 1971; Isaksen, Dorval, & Treffinger, 2000; Parnes & Harding, 1962). The CPS model originated with the question of how humans use creative ideas to solve problems. In education, the approach has been adopted to as a means for helping students to develop their creative thinking abilities. Birch (1951) reported that experience influences the
method of problem-solving, and that stress or frustration interferes with problem-solving. Similarly, Lefford (1946) found that emotional factors reduce logical reasoning ability.

The CPS approach emphasizes both process and product as a group examines an idea, rather than the achievement of a certain solution (Gordon, 1971; Parnes & Harding, 1962). CPS advocates a systematic step-by-step approach to problem-solving (Isaksen, Dorval, & Treffinger, 2000). Parnes and Harding (1962) and Gordon (1971) even have recommended avoiding the assumption that there is a solution. Parnes and Harding have emphasized that delayed thinking is, in fact, a key factor in creative problem solving. Their notion of delayed thinking stresses “not [being] satisfied with the first idea” (p.190).

Corcoran conducted an action research project incorporating the CPS framework into her practice and pedagogy (Corcoran & Sim, 2009). Her study involved students in senior visual art classes who believed they were not capable academically and were at risk of becoming disengaged. She hypothesized that these students would benefit from a clearer theoretical structure and focused on the development of teaching and learning for creativity. Corcoran revised the CPS model and outlined five steps for an action research project: fact finding, problem finding, idea finding, solution finding, and acceptance finding (Corcoran & Sim, 2009). She encouraged students to form groups, and then observed that students in friendship groups appeared less inhibited. Students who participated in friendship groups with diverse artistic abilities produced more creative ideas when brainstorming – and their thinking improved. Students especially preferred working together when brainstorming in the fact-finding stage and at the beginning of the idea-finding stage, then individually in the later phases of idea finding (Corcoran & Sim, 2009). In the solution-finding stage, students bounced ideas off peers and looked for feedback to direct them towards creative solutions. In the stage of acceptance-finding, students achieved resolution individually.

Learners in the study began to reflect on and take ownership of their learning process in the cooperative learning situation, and they went on to assess their use of cooperative learning as a strategy for enhancing creativity, in this way developing their ability to process their own
learning meta-cognitively (Corcoran & Sim, 2009). In other studies (Johnson, Johnson, & Holubec, 1992; Parnes & Harding, 1962), cooperative learning has been found to increase learners’ motivation by allowing self-paced instruction and practice in finding and resolving problems, and by providing instantaneous feedback, with a resulting increase in creative productivity.

**Cooperative Learning and Art Museum Education Theory**

*Benefits of Cooperative Learning Approaches to Art Museum Education*

The influence of the constructivist perspective in museum education theory has led to the assumption that museum visitors are capable of building their own learning experiences. No matter how experts try to establish reciprocal relationships with non-experts, non-experts assume that experts possess the only right way of knowing a work of art. Non-experts typically believe that they cannot summon such knowledge on their own, even if they are well-educated in a non-fine-art discipline (Lachapelle & Douesnard, 2006; Lachapelle, 2007). Such beliefs among non-expert museum visitors may make it uncomfortable for non-experts to express their own ideas about and responses to works of art. Conversely, when museum visitors feel comfortable they are more likely to interact in ways that enable them to construct meaningful learning.

A primary benefit of applying a cooperative learning approach in museum education is the emphasis it places on peer interactions, which transform visitor self-talk from inner speech to outer speech in spontaneous talk with others (Gambrell, 1992; Rubin, 1990). Cooperative learning enables people to listen to each others’ thoughts, and then analyze and think critically about what they hear (Kuhn, 2005). Johnson and Johnson (1987) asserted that a benefit of peer interaction is perspective taking. When in groups, each learner facilitates the personal and academic achievement of the others through mutual support and the high achievement motivation inherent in peer interactions (Johnson & Johnson, 1987). Marzano (1993) also noted that cooperative learning fosters cognitive development by allowing students to compare their ideas to those of other group members.
In a 1990 study by the Denver Art Museum, non-expert art museum visitors reported museum visits to be an effective and rewarding way to connect with other people (McDermott-Lewis, 1990). In another study by Csikszentmihalyi and Robinson (1990), many visitors reported that they believed they had a better learning experience when they shared what they learned. When people assume others in a conversation have a similar background or knowledge of a field, they may feel more comfortable expressing their thoughts. Some researchers even have asserted that peer interactions result in the expansion and transformation of the self (Csikszsentmihalyi, 1990; Falk & Dierking, 2000; Longhenry, 2007). With the wide acceptance of constructivist teaching methods in museum education, peer teaching and cooperative learning is more likely to be found in museum galleries.

Another benefit of the application of cooperative learning in museum education is that it teaches visitors to develop “response-ability” (Rubin, 1990, p.11) in relation to visual images. Response-ability refers to the ability to respond to text, objects, and socially-mediated information, making it similar to the idea of visual literacy in museum education theory.

Since the 1980s, art museums have regarded visual literacy as important. The Getty’s Beyond Creating (1988) and the National Endowment for the Arts’ Toward Civilization (1988), described visual literacy as a priority (Duke, 1988; NAEA, 1988). Museum studies have focused on the developing ways for people to communicate with objects and the museums (Duke, 1988; NAEA, 1988; Stapp, 1992; Schlereth, 1992), as well as educational research in visual literacy, which has been focused on the importance of helping people develop visual literacy (Elkins, 2008; Moore & Dwyer, 1994; Shifrin, 2008). Within museum studies, visual literacy concepts have been used to inform the definition of museum literacy (Stapp, 1992) and object knowledge (Schlereth, 1992). In practice, efforts to promote visual literacy among visitors to art museums have taken such forms as interactive tours and labels that emphasize visual analysis (Jones, 2002).

The first step in advancing visual literacy among art museums visitors is to invite them to read the visual language of the museum (Jones, 2002; Ziebarth & Doering, 1992), a task that
involves the ability to become aware of the museum language and the museum context. Museum educators must find a way to encourage visitors to read within the museum environment, and then teach them how to derive meaning from original art objects (Rice & Yenawine, 2002). Visual literacy skills have been shown to be improved by providing directed observation, teaching a vocabulary with which to talk about the formal elements of art and convey subtle aesthetic impressions and feelings, and nurturing the ability to think critically about art (Jones, 2002; Kokot, 1988; Rice & Yenawine, 2002).

To allow visitors to practice their visual literacy skills, Rice (1997) insisted that art museums need to provide emotional room for viewers’ participation. To do so, it is crucial for museums to create an open-ended and response-centered learning environment (Purves, Roger, & Soter, 1990; Rice, 1997; Roberts, 1997). Such an environment enables learners to feel secure in their response to what they see and read, and recognize the similarities and differences between their own responses and those of other people (Purves, Roger, & Soter, 1990).

Museum education researchers have suggested presenting visitors with information about incomplete and ongoing debates about artworks in order to foster their participation, and make the art gallery more of an open-ended learning environment (Hein, 1996a, 1996b; Roberts, 1997). In addition, current museum education research points to the value of developing cooperative teaching methods that help visitors to consider and share their responses to the work they are viewing.

**Conversation as a Cooperative Learning Approach**

*The educational value of conversation.* From an educational perspective, conversation refers to a model for learning that has been seen as explanatory engagement (Leinhardt & Knutson, 2004). Conversation is a process of successfully relating with speaking partners (Noddings, 2002; Yankelovich, 1999). The purpose of conversation is to explore, wonder, make comments, and find meanings within each other’s contexts and the relationship (Mayer, 2007). Leinhardt and Knutson (2004) defined conversation as “the real moment of co-construction of
meaning” (p. xv), and Sidnell (2001) described conversation as a “culturally-historically particular character” (p.1269) of human behavior.

Two social interactions occur continuously in talk between speaking partners (Kuhn, 2005). An individual speaks to another with the expectation that the other will listen, and then shape a reply (Kuhn, 2005). A listener bases a reply on what the listener has understood the first speaker to say, and the first speaker will do the same for as long as the talk lasts (Kuhn, 2005). Wardhaugh (1985) outlined some conventions of conversation:

1. People set certain limits, behaviors, and expectations based on recognition of the particular circumstances in which they meet and quickly establish what kind of relationship they are in.
2. People agree to hear out the other in conversation as circumstances require, and they also expect that talk will be followed by a response.
3. People choose principles of conversation and behaviors that they see as most likely to achieve whatever objectives they have.
4. People expect that their feelings and beliefs will be recognized by the other in framing what they say in conversation.
5. The most general convention of conversation is that one and only one person speaks at a time even though there are some overlaps and brief interruptions. The purpose of interrupting what another is saying is to seek clarification, correct, challenge the other’s opinion, or attempt to finish the other’s uncompleted talk.
6. People in conversation abhor silence and long pauses, which are treated almost as an embarrassment; thus, pauses are usually kept very short. Rarely, silence is treated as the change point of a topic or issue in conversation.
7. In paired relationships, especially, each person expects that the other will take him/her equally seriously. Thus, in such a relationship, silence is regarded as a deliberate breaking of the paired relationship.
8. Noticeable gestures or body movement in conversation tends to draw the attention of
the other.

People transcend the confines of the self in conversation by performing the seemingly
simple act of responding empathically (Buber, 1923). Yankelovich (1999) asserted that when
talk is successful, education gains new levels of creativity and the bonds of community are
strengthened. As a type of communication, conversation is closer to the kind of ordinary
communication that occurs in everyday life (Noddings, 1992, 2002; Yankelovich, 1999), so in
education, conversation is regarded as an informal and exploratory cooperative learning method.

In education research, the value of conversations is implicitly acknowledged as a means
of creating social interaction and participatory learning environments because conversation
requires learners to mediate meanings, thus contributing to individuals’ learning (Johnson &
Johnson, 1987; Leinhardt & Knutson, 2004; Yankelovich, 1999). Researchers consider
conversation to be a learner-centered teaching method that can invite learners to engage with an
issue, connect it to their lives, and explore it at the deepest levels, thus facilitating constructive
learning (Johnson & Johnson, 1987; Marzano, 1993). What learners bring with them in terms of
information, knowledge, and experiences affects what they say in conversations. Researchers
note that conversation empowers learners to determine the purpose of a talk (Almasi, 1995;
Bilings & Fitzgerald, 2002). People in conversations can freely speak, co-construct meaning, and
direct the conversation in the direction they desire (Bilings & Fitzgerald, 2002; Wells, 2001).

**Conversations in art museum education.** Conversations, when structured in the museum
setting, can function as a cooperative learning method. Conversations may occur within three
types of interaction: museum educator-visitor conversation, visitor-works of art conversation,
and visitor-visitor conversation. McKay and Monteverde(2003) identified the three different
types of conversation that should be prevalent in art museums: 1) external, 2) internal, and 3)
back-and-forth. Although they used the term dialogue, their descriptions apply to the term
conversation as well. External dialogue is an obvious interactive dialogue between two or more
people, including sharing and responding to the questions and thoughts raised by the other(s) in
the process of talking with partners and educators. Internal dialogue is a long-term unspoken
dialogue within the viewer, which usually continues long after an encounter with an artwork.
Back-and-forth dialogue takes place between the viewer and the artwork, in relation to the
viewer’s expectations and experiences.

In the museum education context, McKay and Monteverde’s ideas are highly relevant.
Educator-visitor conversation involves dialogic teaching that the educator enacts, though as the
facilitator, rather than the leader, of the conversation (Zander, 2004). Visitor-works of art
conversation refers to the internal conversation between the visitor and the works of art in the art
museum, and visitor-visitor conversation concerns the peer learning that occurs between visitors.
Even when a person simply views a work of art in an art museum, he or she has questions that
become part of an internal conversation (McKay & Monteverde, 2003). Indeed, it is this inner
dialogue that serves as the foundation for the other types of conversations within the museum.

The primary benefit of visitor-visitor conversations, or, in Johnson and Johnson’s (1987)
terms, peer interaction, is promoting in learners greater emotional involvement, higher-level
reasoning, critical thinking, and meta-cognitive thinking (Gambrell, 1992; Hein, 1998; Johnson
& Johnson, 1987, 1994b). In peer conversations, each individual has an equal role and the same
right to control his or her own goals for the conversation (Almasi, 1995; Bilings & Fitzgerald,
2002; Brubacher, & Payne, 1994). Also, visitor-visitor conversations create more comfortable
talk between viewers than museum educator-visitor conversations because of less concern by the
visitor about their lack of knowledge about art (Leinhardt & Knutson, 2004). As social
interactions, all such conversations stimulate individuals to examine works of art, and to think of
them from multiple viewpoints. When interaction is involved, it provides opportunities for
individuals to compare and contrast their responses with those of others.

A number of researchers have called attention to the importance of creating comfortable
conversations about works of art in art museum galleries (Lankford, 2002; Leinhardt & Knutson,
2004; Mayer, 2007). In this sense, promoting spontaneous and meaningful conversation of
visitors has come to be seen as an important task for museum educators. The effort to put more
stress on obvious speaking and active interaction can engage museum audiences in more conversation. Consistent with Mayer’s (2007) emphasis on meaningful conversation as a means of promoting gallery learning, museum educators must provide a physically and psychologically comfortable environment that facilitates the expression of thought between visitors (Mayer, 2007; Sandra & Spayde, 2001; Vella, 2002).

**Chapter Summary**

Previous knowledge derived from research and practice in education and museum education justified and informed this study. The literature review contained in this chapter provided a background on meaning-making in art, the role of art museums as a representative system of multiplicity of meanings in works of art, and innovations in the field of museum education, all of which have been brought about, in part, by innovations in cooperative learning. The application of cooperative learning theories to research and practice in museum education continues to produce insights on how best to stimulate learning among museum visitors. This review of current trends and understandings in art museum education provided insight into new directions in museum education research.
CHAPTER 3

METHODOLOGY

A study’s methodology is the means by which research questions are answered. The methodology should enable the researcher to answer the research questions in the easiest and most direct way (Mertens, 2005). When research questions are open-ended, a flexible methodology can enable the researcher to respond to themes as they emerge during data collection (Robson, 2002). This chapter contains a description of the purposes of the study, the research questions, the research design, and the plan for data analysis.

Research Questions

The guiding research question for this study was: What is the nature of the conversation that takes place between adult pairs in front of a work of art in the museum gallery?

The supporting research questions were:

1. What are the contents of their paired conversations?
2. What are the verbal interactions as they discuss the works of art in the paired conversations?

Theoretical Foundation

The theoretical foundations of a study are the basis for a researcher’s understandings of the world (Patton, 2002). This study investigated the nature of the paired conversations that occur in front of a work of art in an art museum gallery. The speech, thoughts, behaviors, and actions of individual visitors are central to understanding this phenomenon. Therefore, qualitative research, particularly that using a constructivist approach, fits with this research.

Qualitative Research

Qualitative researchers are concerned with accurately capturing the perspectives of those who are under study (Bogdan & Biklen, 2007). Gaining a window into such perspectives requires that the actual setting of any phenomenon is the source of the data (Bogdan & Biklen,
2007; Creswell, 2007; Miles & Huberman, 1994). According to Creswell (2007), qualitative researchers collect data by asking questions of participants, describing what they observe, and subjectively analyzing the participants’ words. They collect data without advance predictions or hypotheses in order to find substantial or meaningful patterns or relationships that emerge from the data (Creswell, 2007; Patton, 2002). At the same time, they do not present the sum of the parts as the whole, mainly because they acknowledge that many variables influence and are influenced by each other. Qualitative data take the form of detailed and in-depth descriptions or pictures. Further, data consist of quotations from interview transcripts, field notes, memos, or documents (Bogdan & Biklen, 2007).

In qualitative data collection, the researchers’ experience, inspiration, and interpretations about phenomena heavily influence what is considered valuable data (Bogdan & Biklen, 2007; Maxwell, 2005). The subjectivity involved in data collection and interpretation has the potential to harm the credibility of a qualitative study. Therefore, the triangulation of data, methodology, and theories is important in balancing objectivity and subjectivity (Patton, 2002). Three major techniques of data collection in qualitative research are observation, interview, and document analysis. Observation is used to describe the research setting, participants, and activities in order to understand the holistic context (Patton, 2002). The purpose of interviews is to collect information about participants by asking them questions (Bogdan & Biklen, 2007; Creswell, 2007). Document analysis enables the researcher to view diverse aspects of phenomena from sources like magazines, meeting records, personal letters, diaries, museum letters, and newspapers (Creswell, 2007).

Observation is a useful method for gaining information about people who may have difficulty directly expressing their ideas (Creswell, 2007; Patton, 2002). In order to conduct observations, the researcher needs to spend enough time in the research setting to gain adequate insights and information about the behavior of participants in context. Researchers may take on one or more types of observational roles in such contexts, as a participant observer, non-participant observer, or changing observer. The researcher as participant observer seeks to
become an active insider in a research setting. As a non-participant observer, a researcher just observes and records. A researcher with changing roles makes observations as an insider or an outsider based on the research setting (Creswell, 2007). In addition, researchers typically ask specific questions of participants in order to collect information that cannot be observed during interviews. To ensure validity, interviewers must be careful to be sure that their own perspectives do not inadvertently affect the participants’ responses to questions or their own analyses of the participants’ responses. In addition, interviewers must remain alert for vague or insincere responses by participants that could undermine the quality of data (Creswell, 2007).

**Constructivism**

Constructivism is a worldview and paradigm with an emphasis on the pluralistic character of reality (Bruner, 1986; Schwandt, 1994). Schwandt (1994) summarized the characteristics of constructivists as *anti-essentialists*. The philosophical assumption of constructivists is that ideas that seem to people to be self-evident, such as truth and self, are actually the product of discursive practices that incorporate systems of representations, social and material practices, and ideological effects (Fuss, 1989; Schwandt, 1994). Constructivists claim that individuals seek understanding of the world in which they live through the subjective meanings of their experiences (Creswell, 2007; Schwandt, 1994). Individuals develop these subjective meanings, and then these and the multiple meanings of others are negotiated through interaction (Creswell, 2007). Through these processes, individuals build a relative reality, holding on to their constructions through an experiential and social process (Guba & Lincoln, 2005). Schwandt (1994) characterized construction as “resident in the minds of individuals” (p. 128), and noted that they are continually tested and revised based on our experiences. Guba and Lincoln (2005) claimed that truth, from a constructivist view, is a matter of the best-informed construction on which there is consensus at a given time.

Not surprisingly, constructivists emphasize the practical function of theory construction (Schwandt, 1994). They assume that there are many possible interpretations of the same data, all of which are potentially meaningful (Creswell, 2007; Guba & Lincoln, 2005). They look for the
complexity of views in data rather than narrowing the meanings into a few categories (Creswell, 2007). Creswell (2007) noted that constructivists inductively develop a pattern of meaning rather than starting with a theory. According to Guba and Lincoln (2005), constructivist research emphasizes as much as possible the participants’ subjective views of a situation. Thus, such researchers seek the participants’ perspectives in making meaning of experience (Guba & Lincoln, 2005; Mertens, 2005).

Constructivists understand that constructions are collective and systematic attempts to come to common agreements about a situation (Guba & Lincoln, 1989; Schwandt, 1994). A constructive approach also emphasizes the context of situations in order to identify socially-constructed meanings and meanings that existed prior to observation, which shape a specific research context (Creswell, 2007; Schwandt, 2001). A constructive approach focuses on what people say, how and why they do and say certain things, how and why they act in a certain way, and how they construct meanings in a situation (Creswell, 2007; Guba & Lincoln, 2005). Creswell (2007) emphasized using open-ended questions and listening carefully to understand what meaning individuals construct and how they construct it in a given situation. Along with this emphasis on individual perspectives and meaning-making, constructivist researchers often address “the ‘process’ of interaction among individuals” (Creswell, 2007, p. 21).

When researchers seek to uncover and understand a study participant’ constructions, complexity of thoughts, or created meanings, the constructions of the researchers, as well as of the participant, are at issue (Schwandt, 2001). According to Guba and Lincoln (2005), the researcher is interactively involved in the literally created findings from participants in a research situation. Because understanding that is sought is constructed through the relationship between the researcher and the participants, the act of inquiry is a joint construction between the inquirer and the respondents (Guba & Lincoln, 1989, 2005; Schwandt, 2001). According to Guba and Lincoln, the act of inquiry is an unfolding joint construction involving iteration, analysis, critique, reiteration, and reanalysis. Guba and Lincoln (1989) argued for the possibility of malconstruction, or incomplete or uninformed construction. They also proposed criteria for the
constructions crafted by the researcher: “Construction can only be judged adequate or inadequate utilizing the particular theological paradigm from which it is derived” (p. 143). One’s constructions may well be challenged, then, if one is unaware of conflicts or lacks intellectual sophistication in dealing with new information. Further, it is important to remember that the researcher’s background will play a role in his or her interpretation, leading Schwandt (1994) to observe that to “prepare an interpretation is itself to construct a reading of these meanings” (p. 118).

The goal of constructivist research is to “distill a consensus construction that is more informed and sophisticated than any of the predecessor constructions” (Guba & Lincoln, 1994, p. 111). This goal is based on the premise that human knowledge is both subjective and collective, thus constructions are not separate from those who make them (Creswell, 2007; Guba & Lincoln, 1994). Just as with most qualitative research, the researcher’s intent is to make sense of the meanings others make about the world. In such cases, the role of a researcher is considered as part of the situation and context.

Constructivism in education acknowledges that learning is a complex set of engagements with previous experience, knowledge, learning environments, and social interactions (Cobb & Bowers, 1999; Schunk, 2008). Also, researchers viewed learning as an active, self-directed process of constructing knowledge and skills from multiple perspectives (Bednar et al., 1992; Knowles, 1970). This approach to learning leads to pedagogies, for example, that seek to empower learners to set their own goals (Perkins, 1992), expand their awareness of their own learning structures (Driscoll, 2000), and participate in collaborative learning situations (Driscoll, 2000; Prater, 2001).

**Constructivism in museum education.** For museum educators, constructivism leads to questions about how art museum visitors construct their interpretations of the art they experience (Bransford et al., 1999; Falk & Dierking, 1992, 2000; Hein, 1998). Museum education researchers have used a constructivist perspective for two purposes: to analyze the museum learning experience, and to promote better museum experiences for visitors (Ansbacher, 1999;
When studying the individual’s active constructivist meaning-making process, researchers should consider the previous knowledge, experience, and beliefs of visitors within the museum context (Hein, 1995, 1998, 2006; Hooper-Greenhill, 1999; O’Donnell, 1995; Silverman, 1995). Falk and Dierking (2000) identified three overlapping contexts that shape learning by museum visitors: the personal context (motivations, interests, beliefs, knowledge, expectations), the sociocultural context (cultural-historical understandings, socio-cultural beliefs, social interactions), and the physical context (design, aesthetics of the museum, events, the environment outside of museums). Learning by museum visitors takes place through the integration of these three contexts (Falk & Dierking, 2000, Falk et al., 2007).

Current museum education research, then, stresses the importance of creating participatory learning environments to encourage visitor engagement (Ansbacher, 1999; Burnham & Kai-Kee, 2007; Hein, 1995, 1998; Gottesdiener & Vilatte, 2001; Jeffrey-Clay, 1998; McDermott, 1990; Mayer, 2005, 2007; Stainton, 2000; Villeneuve & Love, 2007). Hein (1996a) pointed to the need for museum educators to find the right level at which to engage a wide range of visitors in active construction and reflective interpretation (Hein, 1996a). Falk and Dierking (2000) suggested creating participatory free-choice learning environments, and Keller et al., (2004) and Villeneuve and Love (2007) stressed using questions to stimulate meaningful inquiry among museum visitors. Thus, the close investigation of conversation, as visitor engagement, such as that conducted for this study, can help researchers understand the nature and characteristics of the museum experience of museum visitors.

The Researcher in Context

According to Bogdan and Biklen (2007), in qualitative studies, a researcher’s personal characteristics and status affect field work relations as well as the interpretation of the data. In this regard, understanding my background and how I became interested in the topic is essential to understanding my perspective as a researcher.
I was born and grew up in South Korea, and I came to the United States for graduate study as an adult. My education in Korea focused on studio art, beginning as a high school student at Sunhwa Arts High School, a school that trains specialized students in fine arts, music, and dance. In my undergraduate program in the Department of Fine Arts at Dongduk Women’s University, a majority of students were studio art and curatorial study majors. My major was curatorial study, which included courses in studio art, art history, theory, aesthetics, museum studies, art management, and art administration. During this time, I recognized my interest in developing methods of communication that would help people understand the art in their lives. I became a curator of education in art museums in Korea, serving in this role for approximately five and a half years. As a curator of education, I was responsible for directing educational exhibitions, producing education programs and lectures, educating art and museum professionals, conducting research, and publishing research findings.

While serving in the role of curator, I continued my education at Dongduk Women’s University, pursuing a master’s degree in curatorial studies. It was beneficial to work and study concurrently, as I learned to apply theories from my courses to my curatorial practices. After earning the master’s degree, I lectured at the university for one year.

In 2007 fall, I came to the United States to earn a Ph.D. in art education at Florida State University, where for the past three years I have studied and served as a research assistant. My education, career, and teaching experiences in Korea and the United States led to my interest in art museum education.

**Research Design**

Constructivism is an appropriate methodological foundation for this study, which investigated paired conversations between adult visitors in an art museum gallery. Using a constructivist approach, I focused on what individuals in the situation said, as well as how and what they did in constructing their understandings about art.

In order to explore the paired conversations, I collected data in two rounds. Each data-collecting round had 20 adult visitors in 10 pairs who were attending the Florida State University
Museum of Fine Arts (MOFA) to engage in recorded the paired conversations in front of a work of art, and to answer a questionnaire. In total, 40 adult visitors in 20 pairs served as the participants for this study.

**Research Site**

In Summer 2009, I developed and implemented education programs at the MOFA. Although most museum volunteers assist with children’s workshops and school programs, the museum educator suggested that I plan a new group activity program for adult visitors because of my professional experience as a museum educator. I began to develop educational materials and programs at the museum for university students and adult visitors. My relationships at the museum enabled me to gain access for study purposes, and to have credibility and the trust of those at the field site, which is always a challenging issue in qualitative research. (Bogdan & Biklen, 2007; Creswell, 2007; Weis & Fine, 2000). I chose the museum as the research site for this study, then, because of the ease of access and the context of the museum. Since I had first volunteered at the museum, I had visited there twice a week. The visits provided a good opportunity for me to observe the visitors to the museum, collect some preliminary data at the research site, and approach potential participants for this study.

The MOFA also was an appropriate research site because of its context. As a university art museum, MOFA exists in an atmosphere of learning and teaching due to the influence of the university setting (Hammond et al., 2006). This atmosphere was an advantage because most visitors tap into the habits and ongoing activities of thinking and learning in a museum. According to the MOFA website, the mission of the museum is to “enrich the university and the community by exhibiting works of art which expand the understanding of art today and of the past and to serve as a teaching instrument for art instruction” (http://www.mofa.fsu.edu/pages/about/). The museum focuses on its function as learning place “by holding exhibitions of informational value to students and the general public and by providing student artists with an arena to exhibit their work.”

The physical features of a museum, as the physical environment in which visitors
construct their experience of a work of art, influence both the overall museum experience and the level of involvement of visitors (Falk & Dierking, 2002; Leinhardt & Knutson, 2004). The physical context includes the presence (or absence) of resources (labels, signboards, or books), the presence (or absence) of rest areas (benches), and the installation condition. Figure 2 shows the physical environment of *Rising Heat* and *Light Pillar* at the MOFA.

![Diagram of物理环境](image)

**Figure 2. Physical Environment of Rising Heat and Light Pillar in MOFA**

After opening the two glass entrance doors, visitors usually went straight toward the second floor exhibition hall, and then came back to the lobby area to go down the first floor. On the way to the first floor, visitors sometimes attended to the artworks along the way because of their huge size and visible position. If visitors did not go down to the first floor, however, they missed the opportunity to see the artworks. The wall on which the artworks were hung was a red brick rounded wall, which was the only one of its kind in the MOFA. Otherwise, the exhibition walls were all white. In the MOFA galleries, there were three big soft benches. Two benches
were located in the middle of galleries on the second floor, and the soft bench near Rising Heat and Light Pillar was the only one soft bench right in front of particular artworks in the MOFA. Each artwork had a label that included the artist’s name, the title, the year, the material, and the status of the artwork in the museum, such as, “Gift of the American Express Corporation.” Each label was attached on the wall to the right side of each artwork, but the size of the labels was small and the location above eye level, so that the labels were a bit hard to read at first glance.

**Works of Art**

The study of the adult pairs’ conversations about the works of art in the MOFA was accomplished through the audio-recording of the conversations and a self-report questionnaire. For consistency, the researcher encouraged participants to have their paired conversations in front of the same works of art, Light Pillar and Rising Heat, both by Trevor Bell. (See Appendices A and B) These artworks are the permanent collection of the museum and were donated by American Express Corporation, Inc. Each artwork was clearly non-objective, with variation of colors on a shaped canvas.

Trevor Bell’s works were inspired by the launch of the Apollo 17 on December 7, 1972, the first nighttime launch from Cape Canaveral (Nasgaard, 2003). According to the artists’ statement, Bell got a strong impression from the event:

> I’ll never forget it a long as I live. When it went the night sky became blue, an extraordinary blue. It [Apollo 17] didn’t seem to move very much, and it was all silent because we were too far away…. It just hovered there in space as it was getting momentum. (Nasgaard, 2003, p. 59)

Bell described how the Apollo 17 event was engaged in his paintings:

> I was at the moon shot in Florida and couldn’t get it out of my mind. As long as I stuck to particulars, I could do nothing with it. Then I realized that what I wanted to get was a tremendous lift and at the same times a tremendous expansion of energy. (Nasgaard, 2003, p. 59)

Many paintings came out of the Apollo experience, as did the two artworks viewed by study
participants, *Light Pillar* and *Rising Heat*. I chose these two pieces for this research both because of the content of the artworks and their accessibility within the museum. My first guiding principle was to select artworks with accessible content for a wide range of visitors. Thus, I chose these non-objective and abstract paintings in the hope that they would stimulate wide-ranging content in the conversations of participants. Since the two artworks have no visible subject matter, they provided a stimulus for a more open-ended conversation.

My second guiding principle in choosing the artworks for participants to discuss was that they provided a characteristic example of the museum’s holdings. The artworks I selected were part of the permanent collection of the MOFA, and represented the museum mission and characteristics well. These artworks could be recognized easily because of their visible position in the museum, and they easily attracted the participants’ attention because of their position and size. Visitors can see the artworks at any time because they are always hanging on one of the main museum walls.

The two paintings were installed near one another, on the brick wall between the two floors of the museum. When a person looks at one of these works, he or she naturally sees the other work because of their proximity. The two artworks have exactly same shape and size; each is trapezoidal, and measures at 186 x 86 inches.

**Potential Participants**

This study used a small sample in order to attain more detailed and in-depth study results. Criterion sampling (Miles & Huberman, 1994), which works well when all participants have experience of the situation being studied (Patton, 2002), was used to determine the participants. The participants were drawn from the research site itself, a university art museum where the majority of the museum visitors are undergraduate and graduate students of the university. Unlike the age of most undergraduate students, who are mainly in their late teens, the ages of the graduate students at the university vary from 20s to 60s. Because of the wide age range of graduate students, I determined a smaller age range for the participants using demographic data from the Department of Psychology as well as a student health insurance survey from the
university. These served as references for the age range of graduate students at the university. The average age of graduate students in the Department of Psychology at entrance was 25, and the range was 21 to 35 (FSU, 2010). According to the 2004 student health insurance survey, conducted with 380 FSU undergraduate and graduate students, 83% of respondents were between 18 and 29 years of age, and 12% of respondents were between 30 and 39 years of age (Voigt, 2004). These numbers suggested that the 18-35 age groups would capture a majority of undergraduate and graduate FSU students as potential participants of this research.

In order to listen to the conversations of adult visitors to the MOFA, groups or pairs of visitors were identified. I distinguished between two types of visitors: 1) those who visited the art museum with a group or teacher, or who had an appointment with a museum educator for a group tour, and 2) those who freely visited the art museum with a friend, family member, or other company with no help from a museum educator or teacher. Because visitors of this latter type talk with each other in the art museum galleries, they have informal conversation by themselves and without “expert” assistance. Choosing the participants from among this type of visitors enabled me to investigate the content of their paired conversations and the role of conversation in their learning by looking in-depth at the naturally occurring social interaction in their conversations.

The potential participants for this research study, then, were based on adult pairs of visitors who were within the range of 18 to 35 years of age. In order to develop a rich understanding of the experiences of museum visitors, the participants were chosen in two rounds. First, I asked 20 adult visitors in 10 pairs to participate in the study in round 1, and then I chose another 20 adult visitors in 10 pairs in round 2. In total, 40 adult visitors in 20 pairs who met the inclusion criteria for this study were chosen as participants. Visitors who were not from the United States (not born and raised in the United States) were excluded. This criterion was established in order to maintain cultural consistency among participants.

I also selected participants over several days in various conditions in an effort to ensure some variety in the types of visitor responses obtained. The number and the types of visitor
responses can be affected by weather, weekdays or weekend, seasons, free admission evenings, or the visiting time period (Hood & Robert, 1994). For this reason, I chose blocks of time to visit the museum that included both weekdays and weekends across morning and afternoon time slots. I concentrated my resources on the time periods and days when visitors were most likely to attend (e.g. Friday afternoon). I avoided museum event days like opening reception nights, however, both because of sampling concerns and the simple impracticality of working in and among large crowds. Until I had an adequate number of participants, I visited the museum at least two days a week.

Participants

Data collection was conducted in two rounds so that the first round of data collection could be used to inform the subsequent round. During Round 1 data collection, I collected data over six days; during Round 2 data collection, I collected data over 11 days. In Round 1, I collected data from any all-adult pairs who spontaneously visited the art museum. After examining the data from Round 1, I recognized that of all the pairs observed, the non-expert-non-expert pairs, as a specific category of art museum visitors, showed a wide range of art-viewing skills, art viewing experiences, and verbal interactions. Consequently, I decided to focus specifically on non-expert pairs in Round 2.

Criteria for participant selection. The criteria for distinguishing non-expert pairs in Round 2 was determined by examining the characteristics of participants in Round 1 and considering previous research. To distinguish types of participants by their expertise with art and art museums, I used two criteria: the number of college-level art classes taken and the frequency of museum visits. Researchers (Efland, 2002; Koroscik, 1993, 1996; Lachapelle, 1999, 2007) have made distinctions between expert and non-expert museum visitors in terms of the amount of their knowledge about art. The term non-expert viewer was used in Lachapelle’s research to describe members of the art museum public who had no university-level training in the fine arts, and a wide range of art-viewing skills, museum experience, and art experiences (Lachapelle, 1999, 2007).
From the questionnaire data, the number of college-level art classes taken and the frequency of museum visits were deemed to be important. Round 1 participants who had never taken college-level art classes or taken only 1-2 classes showed similar levels of knowledge about art and art-viewing skills. Their levels of knowledge and skills stood in contrast to participants who indicated they had taken more than three art classes. With a consideration of the criteria used in other research and the data collected in Round 1, I divided participants into two types: non-expert and art-familiar. The non-expert pairs were participants who had one to two or less college-level art classes, with varying museum experience. Art-familiar pairs were participants who had more than three college-level art classes. A summary of the profiles of the participants of Round 1 and 2 can be found in Appendix D.

**Procedure for participant selection.** In order to select the participants, I approached the members of each potential adult pair as they walked into the museum together, and explained that I was a graduate student working on my dissertation. I asked two questions: “Are you in the age group of 18-35?” and “Are you from the United States?” These questions were designed to determine if they were in the specified age range and cultural group for this research. For Round 2 participants only, I asked an added question, “Have you ever taken more than three college-level art classes, such as studio art, art history, or art education classes?” Only people who answered “no” to this additional question were considered as potential participants for Round 2. I then asked potential participants if they would consent to participate in my study, and explained that my intention was to explore how adult museum visitors have conversations in front of a work of art. I gave them a basic explanation of what they would need to do and what I would do. (see Appendix C) For people who agreed to take part, I explained the data-gathering technique, including a description of the observation, audio-recording, and questionnaire. Once the visitors agreed to participate, they signed consent forms and begin to follow the research procedure.

**Research Procedure**

After obtaining the consent of participants to take part in this research, I asked each pair member to answer a questionnaire. Next, I encouraged them to move in front of the Trevor Bell
paintings and to have conversations between them. Every pair had a conversation about the same artworks, two pieces in the permanent collection of the Florida State University Museum of Fine Arts. All the conversations that took place between the pair members were audio-recorded. During the conversation, I trailed the pair at a distance for observation and took field notes. I did not play any role in the conversation between pair members. To collect conversation data, I gave each pair a small, hand-held audio recorder, and asked them to carry it along with them as they viewed the art in the museum. I asked participants to hold the recorder and speak into it when having conversations, and they did so. In order to maximize the privacy of participants’ responses, I used pseudonyms when collecting, recording, and reporting on their conversations. The pseudonyms were in alphabetical order for each pair, for instance, the first pair members had names that began with the letter A (see Appendix F). Thus, they began by saying into the recorder the pseudonym I assigned to each of them. They did not need to use the pseudonym in the rest of their conversation; if someone happened to use an actual name, I eliminated this reference from the transcripts. They talked for as long as they liked, and I observed behind them at a distance and took field notes, carrying another audio recorder in case of possible equipment failure. When they were finished, the participants turned off the recorder and returned it to me.

**Data Collection Methods**

To generate rich description and analysis, this study used several data collection methods to gain a broad perspective of the problem, while focusing on specific issues for an in-depth understanding.

**Questionnaire**

Each participant was asked to complete a questionnaire before beginning their paired conversations. Background information on each participant, including such factors as age range, social relationship in the pair, frequency of museum visits, and level of art experience, were obtained through the questionnaire. Falk and Dierking (1992) distinguished three types of visitors: first-time visitors, occasional visitors (once or twice a year), and frequent museum visitors (3-4 visits per year). Based on the questionnaire data, I identified four types of visitors
based on their frequency of museum visits in a year: first-time visitors (never visited before), occasional visitors (once or twice a year), frequent visitors (three to five visits per year), and enthusiastic visitors (six or more times per year).

In order to determine the level of art experience of the participants, a question about the number of the college-level art classes taken was used, resulting in four categories: not-educated in art (never), art-interested (one to two classes), art-educated (three to five classes), educated well in art (six or more). Another question was related to the person with whom each participant came to the museum. The social relationships of museum visitors have been found to influence the museum experience as a social experience (Falk & Dierking, 2000; Galami, 2005). Thus, I distinguished between types of social relationships of participants, as family, friend, couple, or other.

I used the questionnaire to obtain comparable data across participants, and worked to make it easy for participants to complete. The questionnaire protocol was tested and revised after discussion with my major professor. A copy of the completed questionnaire protocol is in Appendix E. Participants needed to spend only about 1-2 minutes completing the questionnaire before beginning their paired-conversations.

**Audio-Recording Paired Conversation**

In order to analyze the rich record of paired conversations, it was necessary to have an unedited audio stream. One issue related to recording conversations concerns whether to conduct audio or video recording. Video recording may collect better audiovisual data of participants in the process of paired conversations, but it creates the need to decide on the best location for the camera, to ensure that sound is recorded appropriately, and to determine whether to provide close-up shots or distant shots (Creswell, 2007). Also, the use of a video camera may cause participants to feel more self-conscious or uncomfortable. Therefore, I chose to use a hand-held voice recorder in order to conduct an audio recording that would provide an unedited and detailed audio stream.
From the moment the pair members began to observe the artworks, their entire conversation was audio-recorded. Even if they did not start their conversation immediately after seeing the artworks, their silence was recorded. The audio-taped conversations were transcribed and the transcriptions included notations for silences or conversations gaps. For triangulation of the transcription data, the transcripts were reviewed three times; first, I transcribed all the audio-recording data, then a native English speaker transcribed the audio-recording data again to maximize accuracy and avoid the risk of misunderstanding of the content since the researcher is a non-native English speaker. Last, I compared two transcripts with the audio-recorded files of ensure that the native English speaker who provided the second transcription had not made any errors due to lack of knowledge in this research area, and also to check the time information. The complete transcripts are in Appendix G.

**Field Notes**

One of the primary methods used in this study was direct observation. The strength of observation as a qualitative research technique is that the researcher can acquire firsthand information about the environment and participant behaviors in an actual setting (Creswell, 2005). Patton (2002) has insisted that field notes be taken in qualitative research and that these notes should be descriptive and include anything the observer considers worthwhile. Bogdan and Biklen (2007) have stated that field notes help the researcher to keep track of the project, and to see how he or she has been influenced by the data. I took field notes during the observation, and wrote memorandums directly after each observation in order to capture the fullest extent of my impressions. The field notes concerned the participants’ individual actions, the interactions between pair members, the overall conversation time of each pair, and the characteristics of the conversation, for instance, “the conversation is slow to start,” “They seem unsure of themselves,” “The conversation progresses actively.”

**Data Analysis and the Construction of the Narrative Report**

In this study, the central phenomenon under study was the content and verbal interaction of paired museum visitors in an art museum gallery, mainly evidenced by their conversations.
Consistent with the phenomenological method, as I reviewed the data, I highlighted the substantial statements that provided an understanding of how the participants experienced the situation (Creswell, 2007; Moustakas, 1994). Combining these statements into themes was the next step in developing clusters of meaning from the noteworthy statements (Moustakas, 1994). Using these statements and themes, I wrote a textural description of what the participants experienced and a structural description of how the participants experienced it in terms of the situations or context (Creswell, 2007; Moustakas, 1994). Moustakas (1994) recommended that the researcher add a description of his or her own experiences, and then combine these descriptions in focusing on the common experiences of the participants (Creswell, 2007).

In this research, I used two units of analysis to address two aspects of the phenomenon under study, the conversations of museum visitors standing in front of a work of art. The first unit was individual segments, which were seen as akin to a sentence in written language (though a segment may not always have been a complete sentence.) Segments, then, served as the unit for the analysis of content. The second unit was exchanges or interaction turns in the paired conversations, and these were used for the analysis of interactions. That is, “segments” as one unit of analysis (for the content analysis) and “interaction turns” as another unit of analysis (for the interaction analysis) These two units of analysis corresponded to the two levels of analysis used to address the research questions.

Schwandt (1994) pointed out that the phenomenological-interpretive approach utilizes insights from constructivist epistemology in focusing on the everyday world of human experience. A series of steps particular to phenomenological and constructive research was employed in analyzing the data.

**Treatment of the Data**

The sources of the data for this study included completed questionnaires, written transcripts of participants’ conversations, and researcher field notes. All the files containing this data, including the original audio tapes, were kept in their original condition for one year, after which time they were destroyed. A detailed description of data treatment can be found in Table 1.
Table 1. Data Treatment

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Data Sources</th>
<th>Analysis Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are the contents of their paired conversations?</td>
<td>Transcripts of paired conversations, researcher field notes</td>
<td>Use of sentence as the unit of analysis, categorization of the content of conversation, comparative analysis of each conversation, triangulation of data sources</td>
</tr>
<tr>
<td>What are the verbal interactions as they discuss the works of art in the paired conversations?</td>
<td>Transcripts of paired conversations, completed questionnaires, researcher field notes</td>
<td>Comparative analysis of transcripts and completed questionnaires, comparative analysis of field notes for each pair, comparative analysis of conversation data, triangulation of data sources</td>
</tr>
</tbody>
</table>

**Procedure for Data Analysis**

From the audio-taped conversation data, I transcribed each conversation. An example is below:

Hope: I don’t know.

Holly: I think they are tapered.

Hope: I think they are, too.

In addition, I checked the entire time length of each conversation, the time length of each participant’s utterances, the time length of silences, and the time length of the participants’ movement. (See Appendix G) This analysis was conducted as part of the investigation of the overall characteristics of the entire conversation, as well as the interaction features of the conversations of visitor pairs.
In analyzing the content of the conversations, I utilized a turn-based segmenting method. In the linguistic tradition, segmenting conversations by turns is a common way to analyze conversational data (Markee, 2000; Psathas, 1995). Turns can be one word, one sentence, or sentences in length (Sacks et al., 1974). Turns occur in conversation when the speaker changes. This form of segmenting is regarded as easy to do, and there is little disagreement as to when a turn has or has not taken place (Leinhardt & Knutson, 2004; Markee, 2000; Psathas, 1995).

Sacks et al. (1974) proposed rules of turn-taking in conversations and noted that speakers speak mainly one at a time and speaker change occurs smoothly. Although sometimes overlapping talk occurs, causing some difficulty in the segmenting process, overlapped speech is brief. Even though a speaker’s sentence may not be completed, the next speaker’s turns occurs appropriately. Although turn order may vary, transitions from one turn to the next with no gap in between are common. Leinhardt and Knutson (2004) have discussed the value of turn-based segmenting in analyzing a rich record of conversation. They noted that this method allows researchers to report on how the conversation is constructed and what proportion of talk is done by each member. Peer conversation, in which members of the conversation have equal rights to speak, creates smooth speaker change (Markee, 2000).

To analyze the turn-taking organization of conversations, the speech exchange system typically works well. When the size of a turn and the length of the conversation vary, however, conversation analysis researchers suggested setting a unit of analysis for the conversation (Psathas, 1995). Sometimes it is a word, a phrase, or a single sentence, but it may be a time unit (Psathas, 1995; Ten Have, 1991). In this research, the basic unit of analysis was a sentence; however because the turns varied widely in terms of size and length, in the first level of analysis I often I coded a word, a phrase, a sound, or silent not-responding as a turn.

**Content analysis.** In answering research question 1 of this study, which concerned the content of the conversations, I first read through the written transcripts of the conversations several times in order to obtain an overall feeling for them. Second, I broke an entire conversation into segments of information. In this step, I also broke up any segment that had
multiple topical ideas. Third, I initially labeled each topical ideas according to dimensionalized properties, after which I cleaned and adjusted codes. Dimensionalized properties were to consider the location of each segment in all data and to make title on each segment (Corbin & Strauss, 1998). I then re-examined and refined each dimensionalized property by comparing the raw data and labeled codes. Next, I grouped dimensionalized properties into different properties. Properties in this study referred to sub-categories that represent more detailed titles in an overall data (Corbin & Strauss, 1998). Finally, I organized the codes into different categories. Thus, the first major step in content analysis was creating and categorizing emergent codes that were developed following a thorough review of the academic literature on both conversations in museums (Leinhardt & Knutson, 2004; Leinhardt et al., 2002) and on art inquiry (Keller et al., 2004; Villeneuve & Love, 2007). Leinhardt and Knutson (2004) identified five structural categories related to conversations that occurred mostly in science and history museums. Their categories included: list, personal synthesis, analysis, synthesis, and explanation. Keller and colleagues (2004) identified four categories of conversation related to art inquiry: about an artwork, the context, viewpoints for interpretation, and connections among artworks that help visitors make new discoveries about themselves, others, and the world through art (Keller et al., 2004). From a constructivist perspective, Villeneuve and Love (2007) added two additional categories: connections across subjects and metacognition. I combined and adjusted these categories from previous literature, adding categories and properties based on emergent categories and properties, as I examined the conversation data. The detailed categories, properties, and dimensionalized properties that emerged from this process are described in Chapter 4.

I conducted this process of data analysis four times with the data from Round 1, then four times again with the data from Round 2 of data collection. After accomplishing the categorization of all the data, I used a case-by-case analysis to check the frequency of each category and examine the characteristics of content of the paired conversations. At this point I moved to the last stage of the content analysis of the data, that is, triangulation. I compared the
data collected from the various collection methods in a process of triangulation of the data. Thus, I compared the data from each case and category with the transcripts data, questionnaires, and field notes to search for central phenomenon and other unacknowledged information about the museum experience of visitor pairs through their conversations.

**Interaction analysis.** I explored the verbal interactions, that is, the social activity and the engagement aspects of the members of the visitor pairs, by examining the transcripts of conversations, completed questionnaires, and field notes. As baseline data for this analysis, I first analyzed the data based on the content categories of individual turns. I analyzed four topics in answering research question 2 (How do pair members participate in the conversation? How do pair members interact with each other in the conversation?). These topics were: 1) the general background in art and museums of each participant, 2) timing information, 3) the proportion of talk between pair members, and 4) the interactive patterns or changing roles between each pair member in the conversation.

First, I read through my field notes and completed questionnaires several times to obtain an overall feeling of the data and gain a sense of the general background in art and museums of each pair and participant. From the answers to the questionnaires I was able to determine the participants’ general background in art and museums, the relationship between pair members, and the degree of knowledge about art. Next, timing information was elicited from the audio-taped conversations, including the entire length of the conversation, the time until the start of the conversation, the length of time in silence and in talk, and the time in movement. Third, I explored the proportion of talk between pair members in terms of time and segment frequency from the audio-taped conversations and transcripts. Fourth, I interpreted each turn in conversation, including not responding in silence or changing the topic, within the context of the flow of the entire interaction. After the analytic process described above, I identified the changing roles of the participants in conversations as well as the flow of the verbal interaction.
Writing up the Findings

The final step in writing the results was synthesizing the findings to make suggestions for future research and practice in the field of museum education (Creswell, 2005). In order to provide recommendations for future art museum education research and practice, I carefully re-examined all data sources to identify possible helpful elements for this purpose. The findings of this study were compiled in an in-depth description of the situation studied, including the details of the conversations, observations about participants’ behavior in the situation, and contextual information about the research situation.

Tables and charts were used to provide a visual account of the findings of this research. I described and interpreted all of the major themes resulting from the analysis using the experiences of the participants as illustration. Thus, the report of the findings contains many direct quotes as a means of representing the participants’ vivid voices (Wolcott, 2001). As per Richardson’s (1990) discussion, I used two types of quotation: short, eye-catching quotations for easy reading, and longer quotations to illustrate verbal interactions or convey more complex understandings. Pseudonyms were used for all the participants to maintain confidentiality.

Overall, I was particularly sensitive to data related to participants’ constructions and social interactions in the paired conversations in the art museum galleries.

Chapter Summary

This study was designed to explore the content and the verbal interaction characteristics of paired conversation between adult pairs about artworks in an art museum gallery. This chapter described the rationale for my use of a constructivist research approach, as well as a description of the purposes of the study, the research questions, the research design, and the plan for data analysis.
CHAPTER 4

ANALYSIS OF ROUND 1 DATA

This chapter contains a description of the participants and conversations from Round 1 and findings that emerged from the analysis of the data, as well as my personal background as researcher. Tables and narratives are presented in order to describe the content and aspects of verbal interaction in the participants’ conversations about the works of art in the art museum galleries. Data from questionnaires, transcripts, and field notes were used in this analysis in order to respond to the research questions.

Categorizing the Study Participants

The participants of this study were categorized in two types of pairs as non-expert pair and art-familiar pair. Following the completion of Round 1 data collection, I recognized that *not-interested art* (never taken college-level art class) participants and *art-interested participants* (1-2 college-level art class taken) could be combined as *non-experts* for this study. After analyzing the data in Round 1, I found that participants who indicated that they had never taken college-level art classes and those who had taken only 1-2 classes showed no obvious differences in their knowledge in art as evidenced in their conversations. For example, both groups mostly relied on everyday life-based knowledge, feelings, or preference rather than using disciplinary knowledge in constructing their understandings of the artworks. Both groups focused on or analyzed the details of the art or how the artworks appeared, but neither was able to determine what the artworks might mean. In addition, their conversations demonstrated varied art-viewing skills, imagination, and content. On the other hand, participants who were *well educated in art*, that is, who had taken 3-5, or 6 or more classes, showed substantial differences in content compared to the non-expert participants. The conversation of those in this *art-familiar* group included historical art knowledge or art experience that could be interpreted as experts’ processes (Efland, 2002).
The non-expert visitors were those who had no university-level art classes or 1-2 classes only, with varying museum experience. Art-familiar visitors were those who had more than 3-5 art classes.

**Analysis of Round 1 Data**

I used turn-based segmenting to analyze the ways that the talk between members of the visitor pairs was coordinated, and to determine which member provided which part of the content. At the first level of data analysis, I looked at the content of the data in individual segments. This unit of analysis made it easy to determine the prevalence of different aspects of the content of the talk that occurred between the visitor pairs. For the purposes of coding, I included segments dealing with any topic made during the conversation. The second level of data analysis concerned the process of turn-taking in conversations between the visitor pairs. A non-response or silence was considered a countable response when analyzing the interactions.

I summarized these conversations in tables with quotes from the participants’ conversations. I used pseudonyms in alphabetical order; for instance, the members of the first pair had $A$ names, such as Abby and Alec, the members of the second pair had $B$ names, and so on. The average length of conversations in Round 1 was 3 minutes 52 seconds. The 10 paired conversations yielded 320 conversational turns, 607 segments, and 616 topical ideas.

**Characteristics of Participants: Round 1**

With the answers from questionnaire, the information on each participant, particularly in regard to the social roles within a pair, was adjusted based on the comments that emerged during the recorded conversations. Most of the Round 1 participants were female. Of the 20 participants, 18 participants were female and only 2 participants were male. The majority of participants had some museum experience.

Most of them had visited many types of museums, with 1 exception (Jenn). Half of the participants in Round 1 were either first-time visitors to MOFA (1 out of 20) or occasional visitors (9 out of 20); the other half were either frequent visitors (4 out of 20) or enthusiastic visitors (6 out of 20). Also, a large number of participants (13 out of 20) were familiar with the
MOFA and had visited the art museum before. The social relationships of the pairs in Round 1 were mostly friends (6 pairs out of 10 pairs). Otherwise there were 2 family pairs, 1 couple pair, and 1 classmate pair.

Most participants had some art class experience, though the level of art experience varied: 4 individuals had never taken art classes, 5 individuals had taken 1-2 art classes, 3 individuals had taken 3-5 art classes, and 8 individuals had taken 6 or more art classes. Among 10 of the pairs (20 individuals) in Round 1, there were three types of pairs; non-expert-non-expert (4 pairs), non-expert-art-familiar (1 pair), art-familiar-art-familiar (5 pair).

More than half of the participants in Round 1 were people who had some previous art and museum experience, and who may have been better prepared than others to discuss a work of art. It seemed that most participants brought some prior knowledge that might have come from academic experiences or viewing documents prior to their visit. With one exception, all participants had participatory knowledge or experience, such as how to use an art museum in general, or the purpose of the art museum.

**Content of the Conversations: Round 1**

**Pair A (Abby and Alec).** Abby and Alec, a married couple, were visiting the MOFA for the first time. They had arrived at the museum in very casual dress. When I asked them to participate in my research, Alec readily agreed to participate and Abby quietly accepted his decision. Alec described himself as a teacher, and Abby did not describe herself. When they were filling out the questionnaire before their conversation experience, Abby kept asking Alec about his answers. Abby was relatively passive when they decided to participate in this research. They both had taken 1-2 art classes and described themselves as occasional museum visitors. They engaged in conversation about the artworks for 1 minute and 48 seconds.

During the conversation, Abby and Alec worked closely together with neither being the dominant talker. Abby and Alec were equal participants in the conversation. The frequency of talk was almost equal: Abby spoke 15 times, and Alec spoke 16 times during the conversation. Each naturally responded to the other’s comments. Unlike the relatively passive attitude in
deciding to participate in this research, Abby showed an active attitude in the conversation. Throughout their experience with the works of art, Abby and Alec continually changed their topics of conversation. Their conversation flowed well without gaps during the whole conversation.

When they looked at the first work, Alec spontaneously said, “Oh, the abstract color field paintings!” In this initial comment, he used an historical art term: “the abstract color field painting” which led me to assume that he had at least some subject knowledge. Abby and Alec started their conversation by reading the label for the *Light Pillar*. They then exchanged their overall preferences about the artwork in the following brief analysis of the elements of the artwork:

Alec: *Light Pillar* by Trevor Bell. And I really like this because I like the way the blue is intense. The two sides, the other side of the light pillar I suppose…. I like that.

Abby: Yeah. I like all the combinations of colors.

Even though that day was their first visit to the MOFA, they naturally found and read the labels before making comments about the artwork. I interpret these behaviors as recognition that the information from the museum text would help them to understand the artworks better. Even though both were only occasional museum visitors and non-experts in art, they had at least a minimum of knowledge about how to use museum resources for their museum experience. After checking the title and the artist, they tried to view the artworks in relation to the titles. For instance, Alec said, “That’s the *Rising Heat*. That’s exactly what it looks like….” and Abby responded, “Yeah, it does, because it is intense in the middle.”

Although they tried to connect the characteristics of the artworks with the titles, they did not make statements about the possible meaning of the artworks or the intention of the artist. Alec did wonder if his perspective of a work depended on the height of installation. In response, Abby pointed out the problem of missing the bottom part of a work, and Alec agreed with her opinion.

Alec: Well I wonder if it was on ground level, would it, I guess you’d still look up….
Abby: You would miss the bottom part.

Alec: Yeah. Yeah, you would. You wouldn’t be able to see the top part either.

In addition, they extended the discussion by connecting it to social issues. The discussion was finished with a few exchanges like “Maybe that is what the oil spill [in the Gulf] looks like right now.”

**Pair B (Barb and Beth).** Friends Barb and Beth were visiting the MOFA. When they arrived at the museum, they both looked around. Both carried big purses and wore jeans. Barb and Beth looked like university students. While I was getting demographic information from them, they volunteered that they are university students majoring in literature. It was Beth’s first visit to the MOFA, though both of them were occasional museum visitors. Barb had never taken art classes before; Beth had taken 1-2 art classes.

As I talked with them, I got the impression that Barb had a more active and confident disposition because she decided to participate in the research before any discussion with Beth, and then persuaded Beth to participate in the research. In persuading Beth, Barb said, “I think it would be fun! Let’s do this!” They had conversation for 1 minute and 43 seconds on the second floor. There was a short gap of silence (for 3 seconds) in the last part of the conversation (in between turn 23 turn and turn 24; the total number of turns was 28), and the frequency of talk for both Barb and Beth was the same. They had an active discussion, each agreeing and disagreeing with the other’s ideas. Their conversation had small gaps: one was the moment after Barb described how the artworks looked using her existing understandings about how to view artworks. Beth did not respond to Barb’s statement immediately and she did not make a direct response about it. Instead, she stated her own observation, which I interpreted as an indication that Beth disagreed with Barb’s statement. The other gap occurred during their talk about the materials of the artworks, which I interpreted as a struggle to determine the materials used.

The conversation began with Barb saying, “Alright, we’re looking at these two paintings…there’s not much to them.” Barb and Beth then both expressed their personal preference and judgment about the works of art by stating, “I like the blue one because it has
more colors to it” and “They’re well done. There is lots of… I don’t know.” Barb preferred the *Light Pillar* because of the colors and she repeatedly and clearly mentioned her preference for the colors in that piece in statements such as, “I like a lot of noise personally,” “I personally like cooler colors better,” and “I definitely like the one on the right better.” After exchanging individual responses about the artworks, they talked about how the artworks appeared to them, and such segments of their conversation were focused on individual observation of the visual features about the artworks. Each commented on the visual features about the works in terms of subject matter, as in the following exchange:

Barb: It kind of looks like the sun sets behind it and the top of the trees. The one on the right looks like it has more to it.

Beth: That one kind of looks like someone’s tongue. I don’t know… because it’s big and pink.

Barb associated the artworks with her previous experience from a movie, as in “This one looks like a pathway, though. Like in *Lord of the Rings*, how they walk through the mountain.” In addition, both were interested in technical matters, such as materials of the artworks, as demonstrated in the following exchange:

Beth: … It does look like water stain on a paper though; whereas the other one looks more like paint.

Barb: Yeah, I agree with that.

Beth: They put a lot of work into both of them.

Barb: I want to know what they painted these with… must have been acrylic. I am going to guess acrylic, maybe.

They did not read the labels for the pieces even though they were curious about the materials, suggesting that they did not have prior knowledge of how museum texts can help with understanding a work. They guessed about the materials and then reinforced their beliefs through their discussion.

*Pair C (Cara and Cass).* Cara and Cass were friends. Cara arrived first at the museum
and waited for Cass for approximately 2-3 minutes. While she was waiting, Cara looked very quickly at some artworks in the museum before Cass arrived. Each had visited the museum before. Both were occasional museum visitors, and only Cass had taken 1-2 art classes before. Cara glimpsed at Cass when she stated that she had taken these art classes. Cass said that she took one in her undergraduate program because of a university policy. Although I was not able to ascertain the difference in the roles and the interaction themes in this conversation, Cass demonstrated more active participation as a leader, while Cara showed herself to be more of a passive responder. The frequency of talk between Cara and Cass was almost the same, but the amount of talk by Cara was relatively small.

After answering basic demographical information, they started their discussion and then walked down to the first floor in the middle of the conversation. When they looked at the first artwork, Cara said in a surprised manner, “Oh- I even didn’t recognize the work before! How could I?” Their short conversation lasted for 1 minute and 10 seconds. Before starting their conversation, there was a short silence of about 5 seconds. Cass then began to talk, with the question, “What do you think about it?” In response to Cass’s question, Cara answered “A trapezoid.” Because of her brief response, Cass seemed inclined to continue the conversation with more of her own perceptions of and responses to the works of art. After exchanging perceptions, Cara suggested that they walk down to the first floor, where they continued to talk based on each one’s observations. Their talk continued as an exchange of short observations without connection to everyday life, discipline knowledge, or personal possession.

Cass reflected a negative overall feeling about Rising Heat with the word “scary,” but did not mention the basis for her preference for Light Pillar, such as in terms of colors, shape, or feeling. Cara’s preferences for the artworks were relatively neutral:

Cass: Yeah. I think… I don’t know. The left one looks like a dog and the right one is human legs.
Cara: Oh, right.
Cass: The one on the left looks little scary, and I like the one on the right better.
Cara: To me… both of them are just okay. …

As time passed, their conversation about topics lengthened slightly, but they did not change topics as much. I did not find evidence for constructivist learning values for Cass from her conversation with Cara. However, Cara showed relatively active participation in her preferences and observations after hearing Cass’s ideas about the artworks. In addition to beginning most conversations, Cass typically sought to continue these conversations. Cara, in responding with brief statements like “Oh, right” and “Me, neither” seemed to encourage Cass to talk more about her own feelings and preferences, though perhaps Cass’s intention was to stimulate Cara’s responding or simply to continue the conversation. As a result, Cara contributed relatively active replies with many expressions of her own preference.

**Pair D (Debi and Dora).** Debi and Dora were sisters. They had a family event that day, so they wore similar blue shirts for the event. While they were filling out the questionnaire, they told me they both were art majors. Debi had an undergraduate degree in art history from FSU and Dora had an undergraduate degree in studio art from Northern Iowa. Although both were art majors, the frequency of their museum visits was different; Debi was a frequent museum visitor, and Dora was an occasional museum visitor. The visit was the first to MOFA for Dora. Debi and Dora began the talk with no hesitation. Their conversation lasted approximately 5 minutes 24 seconds, without any gap during the conversation.

The most interesting content in the conversation between Debi and Dora concerned the museum environment. After a quick description indicating positive preference with reasons such as personal preferences for shape or color, a long discussion began about the installation of the artworks and the influence of the installation on the artworks. The topic began with Debi’s negative opinion of the museum space and the installation of the work. In response, Dora revealed a different opinion, which they then discussed in brainstorming alternatives:

Debi: One thing I don’t like, and I think it’s always driven me a bit nuts, you know, maybe because of OCD [obsessive-compulsive disorder], is that because it’s a circular space it can’t hang on the wall completely flat. And I’ve always wondered if there was a
better way to display that. I don’t think there is. I haven’t been able to puzzle it out. But that little gap just drives me a tad bit and I just want to fix it and I can’t.

Dora: Yeah, I’m not sure about that, but I do like the rounded area… it kind of makes them face each other.

Debi: Yeah.

Dora: Definitely pairs them, rather than just sitting side by side on the flat wall.

Debi: Right, and it’s almost more of a conversation. I think that [pause] in a black draped area, so say there were a black curtain draped behind them it would soften the line of the brick. That would really bring them out and I think it would make them much more dynamic. I don’t know what the logistics of that would be. But it would definitely make them more dynamic than they currently are.

Dora: Maybe not the black. I think the blue would fade a little too much.

Debi: Oh.

Dora: And then the orange would be way too poppy. Right now they look more even-more conversational. One would dominate the other with black.

Debi: What about white? Would the orange fade with white?

Dora: Yeah, I think probably like a grey scale.

Debi: OK, that’s fair. (laugh) Ok, so I don’t know exactly what the goal is… but we are redecorating.

Dora: I like the drapery being the color of the brick because that displays them pretty evenly.

Debi: That’s true. It’s very neutral.

Dora: Just the brick lay out.

Debi: Yeah, and I guess that’s what I thinking, too. That it really has that… Brick is such a strong and intrinsic pattern. To me it distracts.

Dora: Yeah, the pattern.

Debi: Right, and these are very much about color. They are not about pattern.
Throughout the discussion, both Debi and Dora continually brought up their own suggestions and then, through their exchange of individual observation and preferences, together constructed an idea about an alternative way to display the artworks.

The connections they made were not exactly interpretations of the artworks before them; rather, the artworks reminded them of their previous experiences in some way, and led to explanations about why they preferred the nature of the artworks:

Debi: Anything that involves bright colors… It’s always been the artists who I liked most in art history. Botticelli is very much color over precision, like the other Renaissance artists were doing. So give me color and I am happy.

Dora: I really like high contrast, which is probably why I like the one with blue and yellow. Because I was a big Caravaggio fan.

Debi: I can see that. I do like Caravaggio as well. Even if he is not high color, he is high contrast. It’s funny, not on topic, but when I was in Rome we were going around and looking at art in the Borghese Gallery and the docent asked us who liked Caravaggio and who didn’t. And it never occurred to me someone wouldn’t like Caravaggio.

Debi’s talk about Caravaggio led to the smooth change of topic, which I interpreted as further inquiry about understanding art. Each of the sisters, but especially Debi, seemed to see themselves as somewhat of an expert about art:

Dora: Well, who wouldn’t like Caravaggio?

Debi: And it was funny because one of the masters, the fine art masters, from here was like ‘I don’t like it.’ Sacrilege. It is very high contrast. It may be unpleasant for people. (...)

Debi: These are mellow enough that even people who aren’t familiar with art history will like them and they won’t say my five-year-old could do that. Because really, your five-year-old probably couldn’t. There is something to be said for art that challenges me. I am art. Roar.
Dora: That is mean to that five-year-old.

Debi: I am just saying that your five-year-old, unless they have a slip and slide, can’t make that. And if your five year old is smart enough to make a slip and slide art board then your five year old deserves to be in a museum.

Dora: We really need to find your five-year-old cousin and give him a slip and slide.

**Pair E (Emma and Evan).** Emma and Evan, a couple, seemed familiar with the museum because they moved straight toward the exhibition hall without any hesitation. Emma and Evan both indicated that they had visited the MOFA before, and that they visited museums more than 6 times a year. The number of art classes each had taken differed greatly, however. Emma answered 3-5 classes, but Evan said he had never taken any art classes. Even though Emma had taken art classes, their relationship as evidenced by the conversation was not dominated by Emma. However, in overall conversation, Emma raised questions to elicit talk by Evan, such as “What do you think about it?” or “Talk about the artworks more.” Their conversation continued for 3 minutes and 55 seconds with several silences (4 times in 16 seconds). When I asked them to look at Trevor Bell’s artworks, Emma said “I’ve seen this work, but I’ve never thought about it,” and Evan said “Yeah.” From their statements, I concluded that this was their first time to seeing these artworks even though they had visited the museum several times before. During the conversation, they maintained a very casual tone with frequent giggles and laughs.

Emma and Evan made individual observations about the artworks, relating them to several everyday life-based experiences. They seemed to be seeking out visual features of the artworks to which they could make an active connection to personal life experiences. Examples of these comments include: “Now I think it looks like, like you know, the image when you play music with a media player…” and “That does look like a face. It looks like a werewolf actually” and “Somehow that painting reminds me of Avatar.” The pair was especially drawn to the idea of a werewolf and returned to the werewolf idea even though they found different concepts to discuss:

Evan: I was trying to figure it out because like at the bottom it’s brighter than the top. So
it almost seems like…

Emma: But the purple part is really darker.

Evan: I mean, like that middle thing, the middle column. It almost looks like they put the paint on the bottom and it went upward. You know?

Emma: Oh – yeah. But I like the werewolf better.

Evan: Yeah, me too. Maybe they just randomly put it in and it turned out to be a partying werewolf.

Additionally, they discussed the materials of artworks without checking their labels, which identified the materials:

Emma: Is it oil? It doesn’t really look like…

Evan: Watercolor, maybe? There’s a lot of watercolor. I don’t know. It’s huge. An air brush?

Emma: No, it’s more like a mop.

Evan: A mop, yeah, or something.

Evan stated that the artworks look like the space shuttle launch, which is indeed the artist’s motivation for the work Evan was viewing: “A little bit like a rocket. Like the V in the middle, the thing looks…reminds me a little of the space shuttle launch…like the flames that come out.” However, when Emma expressed a differing opinion, Evan’s first interpretation fizzled out.

Evan asked Emma questions about the artists’ creative process: “You think when the artists were making these, you think they knew what they wanted the final thing to look like? Or you think they just started painting it? And just painted something?” Emma replied, “I think they had a rough idea and they just started doing it… and the creativity leads that.” After her reply, Evan just accepted her ideas without any further comment. This exchange represents Evan’s role as a questioner and Emma’s role as an opinion-provider.

Pair F (Faith and Faye). Faith and Faye were friends who visited the museum together. They were planning to transfer to FSU, so they arrived early to visit the museum until their meeting with a faculty member. The visit was their first to the MOFA. Faye was a design major,
so she visited art museums somewhat frequently (3-5 times) and had taken many art classes (6 or more). Faith was not an art major but said she was very interested in art as well. She had taken 3-5 art classes and visited art museums 1-2 times in year. Their conversation was brief, lasting approximately 2 minutes and 8 seconds. They spoke very slowly and there were several silences (3 times in 17 seconds) over the time they were recorded. They hesitated before starting their conversation, chuckling a bit for the first 5 to 6 seconds of the recording. During the conversation, they did not approach the artworks closely but rather stood in one spot on the second floor where one cannot approach the artwork labels.

Throughout the entire conversation, both Faith and Faye seemed nervous, and they tended to speak formally about the artworks. Unlike other pairs, they did not state personal preferences at all. Each of them used several statements in making very formal analyses of the art. These analyses mainly concerned the visual look of the artwork, especially the colors and the composition, as in, “The painting on the right looks like it has linear… like transitioning into cooler colors, into blues and purples. [pause] And the painting on the left seems to kind of blend in the background because it is like a pinkish color going into orange.” They guessed about the artist’s intention based on the impact of the artworks, the size, and their installation in the art museum, “I think they are at the scale for a large quantity of people to look at, maybe from a far away distance, too. Maybe that is how the artist wanted them to be seen,” and “I also think it’s interesting how these two flat paintings are on this curved wall. It really sets the contrast. It grabs your attention as you are approaching or descending the stairs.”

They had only two periods of interactive talk. In the first, each stated her own description, feelings, or interpretation with no direct response to what the other said. Faye’s first response to the artwork simply involved her own impressions and descriptions, and was not a response to Faith’s comments. Although Faith spoke right after Faye’s first comment, Faith’s remark was also her own description of the work without any direct response to Faye’s statement. However, Faith used some of the same words as Faye, such as “cooler colors”. In the second period of conversation between them, Faye responded to Faith’s previous comment with added
Pair G (Gina and Gwen). Gina and Gwen, friends, both had previously visited the MOFA. Gwen visited museums (6 or more) more frequently than Gina (3-5 times). They were both undergraduate students; Gwen was an art history major, and Gina was a humanities major. Both indicated they had taken 3-5 art classes before. Before starting their conversation, Gwen asked me, “Can we go down?” and then sat down on the couch on the first floor in front of the artworks. In the middle of their talk, Gwen got up from her seat to check the label. During their final conversation, Gina and Gwen both stood up in front of the artworks. Each openly offered her opinion without reservation. The conversation lasted for 5 minutes 12 seconds, with six periods of silence for a total of 32 seconds.

Gwen had previously seen the artworks, and she had information about the artist’s motivation and intention. Her explanation helped Gina’s base understanding of the artworks and led to some questions from Gina, such as “Did he or she know the space the piece is going in to when he designed the work? Or did it just work out that way?” and “Is it on canvas?”

The following statements showed Gwen had particular knowledge about the artist and the artworks: “I really like these painting by Trevor Bell” and “I think I remember that he did it inspired by the shuttle launch or something. He was inspired by the steam and fire that was coming out of the shuttle as it was going up.” I coded these statements as connection to creator’s viewpoint statements. Even though there was a direct comment about the inspiration of the artworks in their conversation, the discussion did not connect the artist’s motivation with the details of the artworks. Rather, Gina and Gwen focused on describing how the artworks looked, using images such as thermal photography or a chemistry test, observations that were not particularly connected to the information from Gwen.

Gina: Like a thermal photography, you would see the different colors and the heat and the cool area. …

Gwen: At first glance, the first time I saw these, they reminded me of that science, the chemistry test that tests PHs.
Gina: It’s interesting, the contrast of warm colors progressing towards you and cool colors receding. You can really see that in the two pieces. This one does actually seem physically closer to us.

Gwen: There’s less variation of color in this one, I feel. And, less of a contrast, there’s blue and then purple and then green and then yellow and then a little bit of magenta pink in the bottom. And it seems to me there’s just orange and pink and a little bit of green in the bottom.

One interesting characteristic of Gina’s and Gwen’s conversation was that they flexibly connected the artworks with art-related and interdisciplinary knowledge, as in “It is so strange to me, because it looks like a giant Shroud of Turin” or “It’s sort of Rorschach.” Moreover, their conversation reflected a kind of fluent art world contextual knowledge:

Gwen: When was the painting painted? 1982.

Gina: So that was 1982 when we were still using the vivid bright colors, like poster art.

Gwen: Yeah, techni-colored ink.

Gina: Actually, it is a remnant of its time. You can date it by the color palette.

Pair H (Holly and Hope). Holly and Hope both were undergraduate art history majors who visited the museum on their own time. Both replied that this was not their first visit to a museum; they reported more than 6 museum visits and more than 6 art classes taken. Both seemed familiar with the museum; for instance, they immediately went downstairs to closely view the artworks, and then sat down on the couch in front of the artworks. Their conversation continued for 4 minutes 10 seconds with several gaps (8 times in 36 seconds). Both Holly and Hope had similar influences on the conversation. Throughout the conversation, each performed the roles of stimulator, analyzer, and responder.

Their descriptions as they observed the artworks mostly focused on the colors and composition of colors of the artworks, such as “the dark moves up and the yellow was down.” Sometimes, they judged the quality of the artworks based on their observations, as in, “I think they work well together because that is a warm color, this is a cool color.” The statement “I think
it works pretty well for this space. Except… it was probably really difficult to hang them because they are flat and the wall is round” also revealed a judgment of the installation.

Hope was curious about the status of the artwork in the art museum and posed the question of “Are they donated?” Holly responded after checking the label. After checking the status and the year the work was created, their conversation proceeded to a discussion that demonstrated fluent art history knowledge:

Holly: Is this 1982? Yeah, it’s kind of like Morris Louis except Technicolor.
Hope: Yeah.
Holly: I don’t know why I said that because it’s really not like Morris Louis at all except that it’s just down.
Hope: It’s like Georgia O’Keeffe, too. The more I look at it because it has that shape.
Holly: Oh really, you mean a penis and a vagina.
Hope: Yeah, I guess that’s what I mean.
Holly: Yeah, that’s interesting. It kind of reminds me of Helen Frankenthaler except that it… is it acrylic? (reading label again) It is acrylic. It’s like the legacy of abstract color field painting except it’s definitely not drip and it’s not stained. It’s just acrylic on top of the canvas.

**Pair I (Irene and Iris).** Irene and Iris both were graduate art students; each had taken 6 or more art classes. Irene answered 3-5 museum visits and Iris reported more than 6 museum visits. Both seemed familiar with the MOFA. They immediately moved down to the couch on the lower level and sat there for a bit before starting their conversation. Except for one moment, when Iris rose from the couch to check the labels, they sat until the end of their conversation. They began talking without reservation and talked for 12 minutes and 27 seconds, which was the longest length of all the conversations of the visitor pairs studied. During their conversation, both Irene and Iris used various gestures to communicate their understandings to the other. For instance, each of them lifted a hand to point out features of the artwork.

Iris had knowledge about the artworks and the artist, so she provided information on the
artist’s intention and motivation and contextual information about the artist’s life, as in, “You know, he was a painter here, back in the 80s.” From this comment, the conversation proceeded with an analysis of the meaningful visual features in relation to the provided information and the titles:

Iris: I think that the artist was trying to give you the feeling of upward motion and flight. I actually happened to read a little more about this one on the right. And, he was affected greatly by his visit to NASA to see the space shuttle launching.

Irene: I can see the fire; the notion of what the shuttle left behind, or something, right? And, the colors, too.

Iris: Yeah, there really is a lot of thrust on this one on the right hand side. Which is, hold on, (standing up from a bench, and going to read labels), I’m going to go and… it is called Light Pillar on the right. And, (moving to the other label) the other is called Rising Heat. So this one, with Light Pillar on the right, pretty much has all the colors of the rainbow. And that makes sense because the light pillar. You know that light is every color when it is scientifically broken down, refracted.

Irene: Yeah, of this one on the right, [pause] this one has a lot of contrast. Pretty much every color in there, [pause] with the warm colors mainly in the center of it. And, framed by two big sections of cool colors on the sides. Compared to this one, this is all warm. Heat, with some cool colors showing.

They repeatedly analyzed the characteristics of the artworks in relation to the artist’s motivation and the titles. They then extended the talk to ideas about the nature of art talk:

It’s interesting how the title of the work really makes you think about it, too. And that’s probably why a lot of times artists don’t title their work. They leave it untitled because they want you to look at the work and not think about they were trying to say.

The content of the conversation between Irene and Iris moved from discussing contextual information to interpreting artworks based on their analysis of visual features within the framework of given information, including the artist’s intention or the artworks’ titles. Iris’
comments occupied the beginning of the conversation and provided contextual information. From these comments, further analysis and interpretation continued until the end of the conversation. In particular, an interpretational analysis of the visual features of the artworks progressed from an analysis of each artwork to a comparison of the two artworks. This comparison of the two artworks occupied a noteworthy portion of the conversation. Many such comments were made, as in “It’s interesting how both of them have the same composition, because there is a background on the sides” and “It’s more monochromatic than this one, which is very contrasting with more like complementary color combination.” Both Iris and Irene also seemed to assume the existence of a relationship between the two artworks in terms of the artist’s intention, for example, “If you look at the one on the left, and you kind of move to the one on the right, the Pillar, you can almost see a continuation of the color. I think… it may be the artist’s thought.” The conversation concluded with each stating her personal preferences about the artworks.

**Pair J (Jenn and Jill).** As Jenn and Jill entered the MOFA, Jill said, “Here’s the FSU museum.” Jenn hesitantly stepped in the museum and approached the artworks. When I asked them to participate in this research, Jill instantly agreed, but Jenn wavered. This visit was Jenn’s first visit to the MOFA. Moreover, she was a first-time museum visitor and she answered she had never taken any art classes. Jill had previously visited the MOFA, and she had taken 1-2 art classes before. The frequency of museum visits by Jill was 1-2 times in a year. Their conversation in the museum lasted only 38 seconds, which was the shortest duration among the 10 pairs in Round 1. Before starting their conversation, they seemed a little awkward about talking, but then Jill asked, “Well… what is it?” Their conversation then proceeded.

Throughout the conversation, only Jill shared her initial interpretations: “I think it kind of looks like thermal photography,” and “The red and orange are the hot areas, and the green and blue are the cool parts, right?” Jenn did not state any interpretations or descriptions, and made only very brief responses to Jill’s comments based on her feelings, such as, “Yeah, I think that’s it. That’s interesting.” The content of Jenn’s conversation was shaped using personal resources.
without explicit art knowledge to support her description. Thus, Jenn’s descriptions were connected features from the artworks to everyday life-based experiences, not explicit knowledge, experience, or information about art, the artist, or the artworks.

**Categories Resulting from the Content Analysis**

Emergent codes were developed prior to examining the data first by consulting the previous literature on conversations in museums (Leinhardt & Knutson, 2004; Leinhardt et al., 2002; Stainton, 2002; Zimmerman et al., 2009) and on art inquiry (Barrett, 2007; Keller et al., 2004; Villeneuve & Love, 2007). The work of Leinhardt and Knutson (2004), who developed five categories from their conversation data including list, personal synthesis, analysis, synthesis, and explanation, proved particularly useful. Another study on museum conversations and family learning in a science museum identified seven categories: perceptual talk, biological fact talk, connecting and analyzing talk, affective and aesthetic response, reading exhibit labels and texts aloud, exhibit clarification talk, ideas about the nature of science talk (Zimmerman et al., 2009). After considering the categories from these two studies and analyzing the data gathered for this study, I developed six major content categories relevant to this research: response talk, perceptual talk, abstract interpretation talk, personal engagement talk, connecting and synthesizing talk, and other.

In addition, research on art inquiry helped me to categorize the conversation data into properties and dimensionalized properties. According to Keller, Erickson, and Villeneuve (2004) some topics that can serve as the basis of questions that stimulate art-inquiry include: subject matter, technical features, visual features, compositional features, reproduction, care, artist’s life, natural and built environments, function, artworld context, cultural context, artist’s intention, art specialists’ understandings, cultural understanding, personal viewpoints, style, art influences, and themes. Villeneuve (2007) suggested other topics: interdisciplinary inquiry, thinking about thinking, personal meaning, and further inquiry. Because these topics in the art education literature were developed with the purpose of stimulating individuals’ art-inquiry, I viewed these topics as fitting well with the analysis of the content of the conversations, and I referred the
topics and altered with the findings from this study to properties and dimensionalized properties. These codes helped in the initial analysis of the data, which resulted in 6 categories, 12 properties, and 40 dimensionalized properties.

I conducted a frequency analysis of the conversation data to determine the number of single segments made by each individual. Researchers who have conducted conversation analyses have reported that turn-taking occurs spontaneously, even though the turn may be a single word, phrase, or clause (Psathas, 1995; Sacks et al., 1972). Turn length may vary and the size of a turn may be as little as one word or a sound like “oh” (Psathas, 1995; Sacks et al., 1972). My examination of all of the transcripts, for which I considered a word, a phrase, or a sound as a turn, revealed a wide range in the length of turns and the length of conversations; furthermore, some turns included multiple sentences that contained multiple topics.

From the 20 participant conversations, I documented 607 codable segments. Because a segment could have included more than one topic through the use of multiple clauses, some segments were assigned in multiple content categories. For example, if a participant commented on an artwork with a simple statement connected to some previous experience (e.g., a movie), that segment would be coded as both perceptual talk and personal engagement. In total, I coded the 607 segments as containing 616 topical ideas. The analysis of these segments of talk served as the first level of analysis for this research, that is, the analysis of content. The in-depth examination of both the exchanges and interaction between participant pairs, as well as the content of their conversations about artworks in the art museum, was used to answer the research questions from both individual and pair perspectives.

Table 2 presents the categories, properties, and dimensionalized properties of the contents of the conversation between pair members.
<table>
<thead>
<tr>
<th>Category</th>
<th>Properties</th>
<th>Dimensionalized Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Response Talk</strong></td>
<td>Impression</td>
<td>Aesthetic response</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Feeling</td>
</tr>
<tr>
<td></td>
<td>Preference/ judgment</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Neutral</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Negative</td>
</tr>
<tr>
<td><strong>Perceptual Talk</strong></td>
<td>About the artworks</td>
<td>Visual features</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Technical matter</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Subject matter</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Making information</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Viewing perspective</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reading labels</td>
</tr>
<tr>
<td></td>
<td>About the museum environment</td>
<td>Museum facility</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Display</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The status of the artworks in the museum</td>
</tr>
<tr>
<td><strong>Abstract Interpretation Talk</strong></td>
<td>Meaning of the artworks</td>
<td>Related to response</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Interpreted as seen</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Related to titles</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Relationship between the two artworks</td>
</tr>
<tr>
<td><strong>Personal Engagement Talk</strong></td>
<td>Personal life experience</td>
<td>Personal past activity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Someone’s story</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Previous museum visit</td>
</tr>
<tr>
<td><strong>Connecting and Synthesizing Talk</strong></td>
<td>Previous knowledge from other media</td>
<td>Literature</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Movie</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Television</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Studying</td>
</tr>
<tr>
<td></td>
<td>Ideas about the nature of art talk</td>
<td>How to understand art</td>
</tr>
<tr>
<td></td>
<td></td>
<td>How artists create artworks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>How art museum work to explain artworks</td>
</tr>
<tr>
<td><strong>Others</strong></td>
<td>Social talk</td>
<td>Personal life talk</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Social, political issue</td>
</tr>
<tr>
<td></td>
<td>Not applicable</td>
<td>I don’t know phrase</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Management of museum visit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Management of conversation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Personal needs</td>
</tr>
</tbody>
</table>
**Category 1: Response Talk**

Response talk is a category that refers to short or immediate statements after quick observation of the artworks. It includes the properties *impression* and *preference/judgment*. The dimensionalized properties of *impression* include *aesthetic response* and *feeling*. *Aesthetic response* includes comments like “Oh – it’s very colorful,” or “The shapes are amazing, right?” while *feelings* includes segments that express emotional responses to the artworks. For instance, some participants said, “It’s actually a little bit scary,” or “This one is kind of like a void.” *Preference/judgment* was defined as *positive*, *neutral*, or *negative*. Participants’ personal preferences and judgments about the artworks, the artist, the museum, and the pair member’s interpretations are included in *preference/judgment*. *Positive property* includes participants’ sayings, such as, “I actually like that one better because there is something more structured about it,” and “They are well done.” Statements such as “I think both of them are just okay” were coded as *neutral*. *Negative preference/judgment* includes statements like, “One thing I don’t like… maybe because of OCD, is that because it’s a circular space it can’t hang on the wall completely flat.”

**Category 2: Perceptual Talk**

I observed that much of the language of the visitors consisted of reading the labels aloud or briefly describing the artwork. Simple evaluations of a work of art were very common. I called these abbreviated kinds of conversations *perceptual talk*. Segments listing what was seen in the artwork itself and describing the museum environment also were categorized as *perceptual talk*. Accordingly, the properties of perceptual talk are *about the artworks* and *about the museum environment*. *About the artworks* includes segments that refer to recognizable and factual features within the works of art. The dimensionalized property *about the artworks* includes *subject matter* (people, places, things), *technical matters* (material, making process, tools), *visual features* (color, composition, size, shape), *making information* (year, artist), *reading labels*, and *viewing perspectives*. Thus, this dimensionalized property would include such statements as: “These are very much about color. They are not about pattern” or “… the middle column…it
almost looks like they put the paint on the bottom and it went upwards.”

Statements about the museum condition were coded as *museum facility*, *display*, and *the status of the artworks in the museum*, in *about the museum environment*. Segments coded as *museum facility* include simple descriptions of the museum structure or awareness of the museum’s informational materials, such as labels or other texts. For example, comments like, “Can we go down?” or “Let’s check the labels,” were coded as *museum facility*. Dimensionalized properties of *display* include comments about how an exhibit condition works. Statements categorized in *display* include comments such as “brick is such a strong and intrinsic pattern. To me it distracts.” and “I’ve always wondered if there was a better way to display that. I don’t think there is. I haven’t been able to puzzle it out.” Segments were coded *the status of the artwork in the museum* if they referred to an awareness of the artworks as a permanent collection. For instance, one participant said, “Are they donated? … a gift of American Express.”

**Category 3: Abstract Interpretation Talk**

*Abstract interpretation talk* refers to meaning-making talk, that is, the kind of talk that occurred when participants made imaginative, emotional, or assumptive interpretations about the artworks with a brief connection to individual observation and with no explicit background information or knowledge. The single property of *abstract interpretation talk* is *meanings of the artworks*. The corresponding dimensionalized properties are *related to response*, *related to titles*, *interpreted as seen*, or *about relationship between the two artworks*, and included statements like, “it could be a summer-winter kind of theme,” “…I think that the artist was trying to give you the feeling of upward motion and flight,” and “It reminds me of different feelings… different emotions that people go through.”

**Category 4: Personal Engagement Talk**

The category *personal engagement talk* refers to language that connects the artworks to personal experiences and perspectives. It includes the properties of *personal life experience* and *previous knowledge from other media*. Dimensionalized properties of *personal life experience* are *personal past activity*, *someone’s story*, and *previous museum visits*. Comments like, “I am
not particularly fond of yellow…. but I remember at one point I painted a room yellow because I thought it might be energizing … and it made me go crazy,” or “That on the left is what happens if you look at the sun too long.” The property previous knowledge from other media includes dimensionalized properties that represent a connection between the artworks and sources from literature, television, movies, or studying. Participants’ statements, such as, “This one looks like a pathway, though, like in Lord of the Rings how they walk through the mountain” were categorized as personal engagement talk.

**Category 5: Connecting and Synthesizing Talk**

The category connecting and synthesizing talk refers to talk that investigates aspects of the artworks in connection with other artworks or opinions. Within this category are the properties connection to creator’s viewpoints, connection to art history/art world, connection across subjects, and ideas about the nature of art talk. Dimensionalized properties of the property connection to creator’s viewpoints are artist’s intention/motivation and artist’s life. For example, some participants knew about the intention or motivation of the artist who had created a work that was viewed, and thus interpreted the works based on these sources. Related comments included such statements as, “You know, he was a painter here, back in the 80s” or “I actually happened to read a little more about this one on the right. And, he was affected greatly by his visit to NASA to see the space shuttle launching…. And, that makes sense because the Light Pillar. You know that light is every color when it is scientifically broken down, refracted.”

The property connection to art history/art world has the dimensionalized properties art history context, other artists (style, theme), and other artworks by the artist (style, theme, year). Some representative statements by participants were, “In the exhibition that’s upstairs right now there are a few more of Trevor Bell’s pieces that would be fun to go look at together after this, you know, to see how his style has changed…” and “It kind of reminds me of Helen Frankenthaler except that it…it’s like the legacy of abstract color field painting except it’s definitely not drip and it’s not stained.” Statements of participants like, “So that was 1982 when
we were still using the vivid bright colors, like poster art” were categorized in this way.

Segments that involved interdisciplinary interpretation were coded as *connection across subjects*. The property *connection across subjects* was further refined in the dimensionalized property *interdisciplinary*. For instance, some participants stated, “But a light pillar is coming from where? ... From within the earth?” and “It’s sort of Rorschach…you can see anything you want to into it,” and “Maybe that is what the oil spill looks like right now.” Segments involving *ideas about the nature of art talk* were coded as such, and this property was extended to include the dimensionalized properties *how to understand art*, *how artists create artworks*, and *how art museums work to explain artworks*. Included in this category are statements like,

It’s interesting how the title of the work can really make you think about it too… that’s probably why a lot of times artists don’t title their work. They leave it untitled because they want you to look at the work and not think about they were trying to say.

**Category 6: Others**

The category *Others* refers to segments that dealt with everyday life or contained language not applicable to the work, such as comments to manage the conversation or the visit. *Social talk* and *not applicable talk* are properties included in the *Others* category. Dimensionalized properties of *social talk* include *personal life talk* and *discussion of socio-political issues*. For example, one comment thread included the following statements: “Maybe that is what the oil spill looks like right now,” to which the other member of the pair said, “What’s your opinion of the oil spill? Let’s not talk about that. That is terrible.”

The property *not applicable* refers to talk about the management of the conversation or the museum visit, and talk about personal needs, such as, “Are we supposed to have an opinion?” or “Don’t you want to go look at the other ones in the other room?”

**Findings from Round 1 Data**

To investigate the nature of paired conversation in Round 1 data, I conducted the frequency of categories of each pair case. Also, the summary of the content analysis and verbal interaction is included in this section.
**Content Analysis**

Table 3.1 presents a frequency chart of content categories for the conversation between Abby and Alec. Overall, the conversation between Abby and Alec could be categorized as *perceptual talk* since it largely concerned their individual perceptions about the look of the artworks. Other responses showed a few connections with personal experiences and were categorized as *personal engagement*.

Table 3.1. Abby and Alec Conversation Frequencies by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response talk</td>
<td>7</td>
</tr>
<tr>
<td>Perceptual talk</td>
<td>28</td>
</tr>
<tr>
<td>Abstract interpretation talk</td>
<td>0</td>
</tr>
<tr>
<td>Personal engagement talk</td>
<td>3</td>
</tr>
<tr>
<td>Connecting &amp; synthesizing talk</td>
<td>0</td>
</tr>
<tr>
<td>Others</td>
<td>10</td>
</tr>
</tbody>
</table>

Table 3.2 presents the frequencies of responses in the content categories in the conversation between Barb and Beth. The topics of the conversation between Barb and Beth were coded as *response talk* and *perceptual talk*. At the beginning and in the middle of the conversation, most of the content was positive, with some statements reflecting negative *preference/judgment*, and others brief descriptions through observation. Barb did not express clearly her preference between the two at the beginning, but mentioned in the late middle of the conversation that she preferred the colors of the *Light Pillar*. From the beginning to the end of their conversations, Beth preferred the *Light Pillar*. As the discussion continued, Barb and Beth found various visual features of the works that connected to previous media-related experiences, for example, the statement about the *Lord of the Rings* movie. Beyond the short and casual connection to the movie, however, they did not talk much, and most of the content could be
coded as *preference* or *description*.

Table 3.2. Barb and Beth Conversation Frequencies by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response talk</td>
<td>18</td>
</tr>
<tr>
<td>Perceptual talk</td>
<td>19</td>
</tr>
<tr>
<td>Abstract interpretation talk</td>
<td>0</td>
</tr>
<tr>
<td>Personal engagement talk</td>
<td>1</td>
</tr>
<tr>
<td>Connecting &amp; synthesizing talk</td>
<td>1</td>
</tr>
<tr>
<td>Others</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 3.3 presents the frequencies of responses in the major content categories in the conversation between Cara and Cass. The content of the conversation between Cara and Cass could mainly be considered as reflected the dimensionalized property of *visual features* and the property *preference/judgment*.

Table 3.3. Cass and Cara Conversation Frequencies by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response talk</td>
<td>9</td>
</tr>
<tr>
<td>Perceptual talk</td>
<td>11</td>
</tr>
<tr>
<td>Abstract interpretation talk</td>
<td>0</td>
</tr>
<tr>
<td>Personal engagement talk</td>
<td>0</td>
</tr>
<tr>
<td>Connecting &amp; synthesizing talk</td>
<td>0</td>
</tr>
<tr>
<td>Others</td>
<td>2</td>
</tr>
</tbody>
</table>
Table 3.4 presents the frequencies of responses in the major content categories in the conversation between Debi and Dora. A major characteristic of the conversation between Debi and Dora was that they synthesized the talk about the artworks with their art-related knowledge and personal possessions.

Table 3.4. Debi and Dora Conversation Frequencies by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response talk</td>
<td>24</td>
</tr>
<tr>
<td>Perceptual talk</td>
<td>29</td>
</tr>
<tr>
<td>Abstract interpretation talk</td>
<td>2</td>
</tr>
<tr>
<td>Personal engagement talk</td>
<td>9</td>
</tr>
<tr>
<td>Connecting &amp; synthesizing talk</td>
<td>32</td>
</tr>
<tr>
<td>Others</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 3.5 presents the frequencies of responses in the major content categories in the conversation between Emma and Evan. The conversation topics did not change much over the course of the visit. The topics could be coded as perceptual talk and connection to personal viewpoints. Toward the end of the conversation, Evan and Emma found more detail from the artworks that reinforced their previous ideas. For instance, when they both thought the artworks resembled a werewolf, they continued to find a visual basis for the interpretation, such as the following: “Maybe the eyes are just closed. He has really small eyes and he’s very self-conscious about it. It looks like he’s got a hat….” In the middle of the conversation, the topics proceeded to some art historical knowledge talk and some preferences/judgment. Soon the conversation returned to personal viewpoints, however, and then ended. Between their discussion of the artworks and social talk, their conversation was casual. However, no content was coded as the property social talk because it was always somehow connected to the artwork.
Table 3.5. Emma and Evan Conversation Frequencies by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response talk</td>
<td>8</td>
</tr>
<tr>
<td>Perceptual talk</td>
<td>39</td>
</tr>
<tr>
<td>Abstract interpretation talk</td>
<td>2</td>
</tr>
<tr>
<td>Personal engagement talk</td>
<td>15</td>
</tr>
<tr>
<td>Connecting &amp; synthesizing talk</td>
<td>4</td>
</tr>
<tr>
<td>Others</td>
<td>6</td>
</tr>
</tbody>
</table>

Table 3.6 presents the frequencies of responses in the major content categories in the conversation between Faith and Faye. The characteristic of their conversation was individual observations and ideas rather than an exchange or discussion of ideas.

Table 3.6

*Faith and Faye Conversation Frequencies by Category*

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response talk</td>
<td>3</td>
</tr>
<tr>
<td>Perceptual talk</td>
<td>14</td>
</tr>
<tr>
<td>Abstract interpretation talk</td>
<td>2</td>
</tr>
<tr>
<td>Personal engagement talk</td>
<td>0</td>
</tr>
<tr>
<td>Connecting &amp; synthesizing talk</td>
<td>0</td>
</tr>
<tr>
<td>Others</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 3.7 presents the frequencies of responses in the major content categories in the conversation between Gina and Gwen. After briefly exchanging *perceptual talk*, Gwen provided contextual information about the creator’s intention and motivation, which in turn provided the
basis for further conversation that analyzed visual features. Both analyzed the look of the artworks and found some point of connection to their own cultural understanding or knowledge. Thus, each one’s knowledge stimulated the other’s connecting or analysis.

Table 3.7. Gina and Gwen Conversation Frequencies by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response talk</td>
<td>10</td>
</tr>
<tr>
<td>Perceptual talk</td>
<td>49</td>
</tr>
<tr>
<td>Abstract interpretation talk</td>
<td>4</td>
</tr>
<tr>
<td>Personal engagement talk</td>
<td>6</td>
</tr>
<tr>
<td>Connecting &amp; synthesizing talk</td>
<td>14</td>
</tr>
<tr>
<td>Others</td>
<td>5</td>
</tr>
</tbody>
</table>

Table 3.8 presents the frequencies of responses in the major content categories in the conversation between Holly and Hope. The two major content categories of the conversation between Holly and Hope were perceptual talk and connection to art history/art world. Holly’s and Hope’s conversation progressed from exchanging observations to analyzing the artworks to comparing the work to that of other artists. The conversation between Holly and Hope displayed a constructivist progression in that each of them gradually constructed deeper understandings of the artworks through their experience at the museum, beginning with information from the labels and their own observations, and then from their previous art history knowledge. In this way, Hope and Holly together constructed new interpretations and connections.
Table 3.8. Holly and Hope Conversation Frequencies by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response talk</td>
<td>18</td>
</tr>
<tr>
<td>Perceptual talk</td>
<td>47</td>
</tr>
<tr>
<td>Abstract interpretation talk</td>
<td>2</td>
</tr>
<tr>
<td>Personal engagement talk</td>
<td>1</td>
</tr>
<tr>
<td>Connecting &amp; synthesizing talk</td>
<td>10</td>
</tr>
<tr>
<td>Others</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 3.9 presents the frequencies of responses in the major content categories in the conversation between Irene and Iris. The content of the conversation between Irene and Iris focused on analyzing the artworks by connecting with creator’s viewpoints and by using art historical/art world knowledge. They analyzed not only the discovery or paralleling of the elements of the artworks, but also how an element affected the entire artwork.

Table 3.9. Irene and Iris Conversation Frequencies by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response talk</td>
<td>30</td>
</tr>
<tr>
<td>Perceptual talk</td>
<td>63</td>
</tr>
<tr>
<td>Abstract interpretation talk</td>
<td>2</td>
</tr>
<tr>
<td>Personal engagement talk</td>
<td>1</td>
</tr>
<tr>
<td>Connecting &amp; synthesizing talk</td>
<td>26</td>
</tr>
<tr>
<td>Others</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 3.10 presents the frequencies of responses in the major content categories in the conversation between Jenn and Jill. The content of the conversation between Jenn and Jill was
very simple conversation with individual observation about visual features of the artworks and with some connection to their personal experiences.

Table 3.10. Jenn and Jill Conversation Frequencies by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response talk</td>
<td>1</td>
</tr>
<tr>
<td>Perceptual talk</td>
<td>7</td>
</tr>
<tr>
<td>Abstract interpretation talk</td>
<td>0</td>
</tr>
<tr>
<td>Personal engagement talk</td>
<td>2</td>
</tr>
<tr>
<td>Connecting &amp; synthesizing talk</td>
<td>0</td>
</tr>
<tr>
<td>Others</td>
<td>4</td>
</tr>
</tbody>
</table>

**Verbal Interactions: Round 1**

Throughout their conversations about the artworks in the art museum, the members of the visitor pairs tried to share each one’s prior knowledge and experience, as well as to make connections with each one’s resources and what they were observing. In answering research question 2, I conducted a second level of analysis, that is, of the interactions between the members of the visitor pairs. While the first level of analysis was undertaken in order to answer research question 1, which concerned the content of individual turns, the second level of analysis concerned how the content codes were distributed across conversations, and how the conversations were built. I analyzed the content of the conversations in order to better understanding the pair members’ verbal interactions, including their roles in the conversation, verbal interaction that developed in relation to these roles, and the progression of the content of the conversation. The focus was on the coordinated social activity of the visitors as they examined artworks or engaged in conversation activities. Interactions took the forms of descriptions, shared remembering, shared knowledge, questions and answers, and analogies.
For the purposes of coding, a non-response to a question, such as silence or changing topics, was considered a countable response. In linguistic research, exchanges that involve silence or another non-response are coded according to a display of how the speaker interprets the non-preferred responses and attributes motive and other characteristics to the other person (Gale, 2008). In pairs, each speaker has an expectation about how the recipient should respond (Psathas, 1995; Sacks et al., 1975; Wardhaugh, 1985). Thus, in order to understand how the paired conversations were constructed, I present one case of each interaction theme to illustrate how the members of the pairs interacted in the conversation.

**Verbal Interaction Round 1, Theme 1: Art-familiar pairs with no particular art knowledge of the artworks.** Among the art-familiar pairs in Round 1, the average total length of a conversation was approximately 8 minutes, a long period relative to non-expert pairs. Across the five art-familiar pairs, sharing remembrances and knowledge and using museum text as a conversation source were relatively frequent. The bulk of the connecting and analyzing talk of the art-familiar pairs related to various life experiences and art-related knowledge and experiences.

For example, Debi and Dora were both art majors; though Debi was familiar with these particular paintings, though Dora was not. In this case, the difference in their prior experience with the artworks did not substantially influence the verbal interactions. Each had almost the same power in the conversation and the frequency of talk was almost the same. The interaction in the Debi and Dora pair is described here because it illustrates how, in the course of their conversation, pair members puzzled through the art exhibition to create mutual or communal conclusions about the artworks.

Table 4.1 displays an example of the verbal interaction that occurred in the conversation of an art-familiar pairs with no particular art knowledge of the artworks.
Table 4.1. Round 1 Verbal Interaction Example: Art-familiar pairs with no particular art knowledge of the artworks.

<table>
<thead>
<tr>
<th>Pair</th>
<th>Talk</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>Debi: One thing I don’t like, and I think it’s always driven me a bit nuts, you know maybe because of OCD, is that because it’s a circular space it can’t hang on the wall completely flat (<em>point to the wall behind the artworks</em>). And I’ve always wondered if there was a better way to display that. I don’t think there is. I haven’t been able to puzzle it out. But that little gap just drives me a tad bit and I just want to fix it and I can’t. Dora: Yeah, I’m not sure about that, but I do like the rounded area…it kind of makes them face each other. (<em>points to the artworks, and gesturing to demonstrate the meaning of “face”</em>) Debi: Yeah. Dora: definitely pairs them, rather than just sitting side by side on the flat wall. Debi: Right and it’s almost more of a conversation. I think that in a black curtain draped behind them it would soften the line of the brick. That would really bring them out and I think it would make them much more dynamic. I don’t know what the Debi orients Dora’s attention to the display and the museum environment based on her negative preferences. Her intention may be to get Dora’s agreement or to figure out with Dora a better display method. Dora offers a counter-opinion of the environment. Dora used gestures to reinforce her talk. Debi accepts Dora’s counter-opinion, and then changes her original idea. She adds a new suggestion which reinforces Dora’s original idea.</td>
<td></td>
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Table 4.1 - continued

<table>
<thead>
<tr>
<th>Pair</th>
<th>Talk</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>make them more dynamic than they currently are.</td>
<td>Dora wonders about the black (Debi’s idea) due to her imagination and personal understanding.</td>
</tr>
<tr>
<td>(R1P4)</td>
<td>Dora: Maybe not the black. I think the blue would fade a little too much. Debi: Oh.</td>
<td>Dora explained the reasons of her previous saying and keep suggested the directions for thinking.</td>
</tr>
<tr>
<td></td>
<td>Dora: And then the orange would be way too poppy. Right now they look more even, more conversational. One would dominate the other with black. Debi: What about white? Would the orange fade with white? Dora: Yeah, I think probably like a grey scale. Debi: OK that’s fair. OK. so I don’t know exactly what the goal is.. but we are redecorating. Dora: I like the drapery the color of the brick because that displays them pretty evenly. Because there’s not that color right behind. Debi: That’s true. It’s very neutral. Dora: <em>(pointing to the wall)</em> Just the brick lay out.</td>
<td>Debi adds a new suggestion with a will to find an alternative display method through this talk.</td>
</tr>
<tr>
<td></td>
<td>Dora expands this discussion of brick.</td>
<td></td>
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<tr>
<td></td>
<td>Dora notices the brick as an unpleasant element for her (might be for Debi also) although she liked the color of the brick.</td>
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<tr>
<td>Pair</td>
<td>Talk</td>
<td>Interpretation</td>
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<tr>
<td>D (R1P4)</td>
<td>Debi: Yeah, and I guess that’s what I am thinking, too. That it really has that…brick is such a strong and intrinsic pattern. To me it distracts.</td>
<td>Debi agrees with Dora’s comments and analyzes the brick (pattern) as a counter nature with the artwork (colors).</td>
</tr>
<tr>
<td></td>
<td>Dora: Yeah, the pattern.</td>
<td>Debi and Dora both concur with each other’s view of the conflict of brick (as a pattern) and the artwork (as a color). Debi changes the topic of the conversation to her personal preference in art with some artistic knowledge. She states the reason for her positive preference of the artworks as her preference of some types of art based on her artistic knowledge.</td>
</tr>
<tr>
<td></td>
<td>Debi: Right, and these are very much about color. They are not about pattern.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dora: Right.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Debi: So that’s what I was saying. But on the whole, I really like the. But I…anything that involves bright colors. It’s always been the artists who I liked most in art history. Botticelli is very much colors over precision like the other Renaissance artists were doing. So give me color and I am happy.</td>
<td></td>
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<tr>
<td></td>
<td>Dora: I really like high contrast which is probably why I like the one with blue and yellow. Because I was a big Caravaggio fan.</td>
<td>Dora also expresses her preference.</td>
</tr>
<tr>
<td></td>
<td>Debi: I can see that. I do like Caravaggio as well. Even if not high color, he is high contrast. It’s funny [pause] not on topic, but when I was in Rome</td>
<td>Debi talks about her previous museum experience to reinforce the talk about art preference.</td>
</tr>
</tbody>
</table>
Table 4.1 - continued

<table>
<thead>
<tr>
<th>Pair</th>
<th>Talk</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>we were going around and looking at art in the Borghese Gallery and</td>
<td>In this, she strongly expresses her positive preference of Caravaggio-type of</td>
</tr>
<tr>
<td>(R1P4)</td>
<td>the docent asked us who liked Caravaggio and who didn’t. And it never</td>
<td>art.</td>
</tr>
<tr>
<td></td>
<td>occurred to me someone wouldn’t like Caravaggio.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dora: Well who wouldn’t like Caravaggio?</td>
<td>Dora agrees with Debi.</td>
</tr>
<tr>
<td></td>
<td>Debi: And it was funny because one of the masters, the fine art</td>
<td>Debi continues her experience, and extends the talk to a new issue, that</td>
</tr>
<tr>
<td></td>
<td>masters, from here was like “I don’t like it” Sacrilege. It is very</td>
<td>people might feel differently about art.</td>
</tr>
<tr>
<td></td>
<td>high contrast. It may be unpleasant for people.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dora: It could probably be pretty dissent for people who weren’t</td>
<td></td>
</tr>
<tr>
<td></td>
<td>into it.</td>
<td></td>
</tr>
</tbody>
</table>

Transcript key: R1P4 = Round 1, 4th Pair, [*italics*]=no talk, (*italics*)= gestures

This excerpt illustrates how, in the case of one pair, the members built mutual and alternate conclusions about the artworks by exchanging different perspectives in the course of their conversation. Driven by her ongoing curiosity, Debi raised questions. In addition, she shared her perspective that the rounded wall was not a good way to display the artworks, and she pursued ideas about a better display method in her interaction with Dora. Dora’s first questions about the display redirected Debi’s attention to the display issue and possible alternative display methods within the museum environment. Dora’s counter-opinions, with some positive analysis about the rounded wall, influenced Debi’s first negative impression about the wall. The pair then changed their focus to the colors and the patterns of the wall as another distracting element in addition to the wall shape.
Figure 3.1 below summarizes the verbal interaction process of pairs with a lot of art and museum related experiences.

Both Debi and Dora were flexible enough to change their previous perceptions or opinions if either thought the other’s views made more sense. By puzzling over different ideas, Debi and Dora sometimes agreed with, sometimes disagreed with, and sometimes added to the other’s opinion. The give-and-take between the pair was affable and reflected a flexible attitude toward each the other, such as when they came to a joint conclusion when devising an alternate display method for the artworks. In so doing, they first formed a mutual conclusion about the
museum environment, later moving their conversation to talk of their personal preferences using historical art knowledge and personal life experiences. They finished their conversation with further inquiry.

The conversation between Debi and Dora shows the complexity of learning processes and how art-familiar pairs built a productive discussion together. Through puzzling over ideas in interaction, Debi and Dora heard differing perspectives and acquired richer ways to engage with artworks for a multifaceted viewing experience. Even though they did not use much particular artistic knowledge in discussing the display, they seemed comfortable talking about art and sharing different opinions to create alternative or mutual conclusions. When they exchanged their ideas, each expressed her ideas clearly but carefully. Throughout the complementary discussion, Debi may have satisfied her curiosity and gained some answers to her first question. In addition, Dora may have gained an opportunity to focus on the museum environment.

Research in art education has emphasized the importance of puzzling with peers through a series of questions in order to expand one’s understanding of artworks (Barrett, 2000; McKay & Monteverde, 2003). In the beginning of this exchange, Dora felt discontent about the display method based on her previous viewing of the artworks, but she did not devise a better way on her own. Throughout their interactions, Dora and Debi presented perceptions and responded to comments about any issue at hand, which likely promoted more frequent insight and reasoning. After their exchange, each may have thought more about the relationship between the museum environment and the artworks, and may have thought about how people feel and think differently about similar art shapes.

*Verbal Interaction Round 1, Theme 2: Pairs with a member with particular knowledge.* Table 4.2 shows an example of the sort of conversation characterizing verbal interaction Theme 2 that occurred in Round 1.
<table>
<thead>
<tr>
<th>Pair</th>
<th>Talk</th>
<th>Interpretation</th>
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</thead>
<tbody>
<tr>
<td>1 (R1P9)</td>
<td><em>Having a conversation sitting in a couch</em></td>
<td>Iris and Irene made them comfortable to have conversations. It may mean they are familiar with talking about art between them in art museums. Iris explains the artist’s intentions of the <em>Light Pillar</em> from previous studying.</td>
</tr>
</tbody>
</table>

Iris: …I think that the artist was trying to give you the feeling of upward motion and flight. (*pointing the Light Pillar*) I actually happened to read a little more about this one on the right. And, he was affected greatly by his visit to NASA to see the space shuttle launching.

Irene: I can see the fire. The notion of what the shuttle left behind, or something. Right? And the colors, too.

Iris: Yeah, there really is a lot of thrust on this one on the right hand side. Which is, hold on. I’m going to go and… (up from a couch, then reading labels) it’s called *Light Pillar* on the right. (*pointing*) And the other one (*pointing*) is called *Rising Heat*. So this one, with *Light Pillar* on the
Table 4.2 - continued

<table>
<thead>
<tr>
<th>Pair</th>
<th>Talk</th>
<th>Interpretation</th>
</tr>
</thead>
</table>
| I (R1P9) | right, pretty much has all the colors of the rainbow. And, that makes sense because the light pillar. You know that light is every color when it is scientifically broken down, refracted.  
Irene: Yeah, of this one on the right (*pointing*), this one has a lot of contrast. Pretty much every color in there, with the warm colors mainly in the center of it. And, framed by two big sections of cool colors on the sides. Compared to this one, this is all warm. Hear, with some cool colors showing.  
Iris: Yeah, it’s interesting I haven’t… this one on the left, I can look at and really just respond to it, but I really didn’t study this one on the left, *Rising Heat*. It’s interesting. It’s very soft and gently. And I don’t see as much energy in it.  
Irene: Right, it’s a lot softer because of the tones being used.  
Iris: Because it’s more monochromatic.  
Irene: It’s more monochromatic than this one, which is very contrasting with more like complementary color combination. | Irene adds her analysis based on accepting above interactions.  
Iris offers her impression and analysis about *Rising Heat* with no direct connection in personal possession.  
Irene and Iris exchange perceptual talk because of a lack of previous knowledge about the *Rising Heat*. Instead, they focus on analyzing the visual features of each artwork and the relation of both artworks. |
<table>
<thead>
<tr>
<th>Pair</th>
<th>Talk</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I (R1P9)</td>
<td>Iris: Well, there’s almost like an object with a background in this one. But this one is almost one piece, the whole work. So it’s interesting. Irene: It’s interesting how both of them have the same composition, because there is a background on the sides. Iris: Yes. Irene: There is something in the center all the way from top to bottom. Which you can look at it coming from top to bottom, or coming from bottom to top. Now that you told me about the one on the right, I can see it. But at first I thought… Iris: You are right, though, because it could look like dripping down because… I mean, I am getting back to the subject matter again that I have read into it. You could actually see a force or a drip coming down on the right. But the colors in this one are so fantastic. In <em>Light Pillar</em>, just the way he blends his colors and brings in all the dimensions of it. I just love his work.</td>
<td>Irene describes how the <em>Light Pillar</em> looks and tries to connect her observation to the artist’s motivation, which Iris provided earlier. Although she said she had different ideas at first sight, she doesn’t state it here. Iris expresses her ideas how the <em>Light Pillar</em> looks like based on the previously-mentioned motivation of “space shuttle launching.” And she expresses her very positive preference of the artist’s works in general.</td>
</tr>
<tr>
<td>Pair</td>
<td>Talk</td>
<td>Interpretation</td>
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</tr>
<tr>
<td>I (R1P9)</td>
<td>Just generally, I love his work. Irene: I remember this one (<em>points to the Rising Heat</em>), it’s the <em>Light Pillar</em>, right? The <em>Light Pillar</em> looks like, now that you mention it, something from the shuttle that left already. Well, this one looks more like an object or something that is still there in the center.</td>
<td>Irene does not express her preference as a response to Iris’s positive preference of the artist and the artworks. At this point, she confuses the title of artwork, which is the <em>Rising Heat</em>, as <em>Light Pillar</em>. Based on the misunderstanding, she expresses her idea how the visual look of <em>Rising Heat</em> fits with the “space shuttle” event as the artist’s motivation, which Iris mentioned about the <em>Light Pillar</em> earlier. Iris corrects Iris’s misunderstanding, and then she expands this talk to her ideas about how to understand art.</td>
</tr>
</tbody>
</table>

Iris: It’s called *Rising Heat*. And *Rising Heat*, you can almost see the…it’s interesting how the title of the work can really make you think about it, too. And, that’s probably why a lot of times artists don’t title their work. They leave it untitled because they want you to look at the work and not think about they were trying to say. But anyway, the center there, in *Rising Heat*, the pinkish, salmony color does look like the focus.
<table>
<thead>
<tr>
<th>Pair</th>
<th>Talk</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I (R1P9)</td>
<td>Because it is actually crisper and clearer, and everything else is more diffused. Irene: Ummm… <em>(sigh)</em> [silence of 4-5 seconds] Iris: It’s interesting, there’s the little bit of muted soft green, too. Just a little bit of green in it. Irene: You look up higher, you also see other colors. They show up, right? It’s like light. Looking at it in places, it’s almost transparent. You think… Iris: And up at the top, we know the title, so up at the top there’s the smoky, softer hues and there’s more heat down towards the bottom with the brighter yellows <em>(using up-and-down hand gestures while speaking)</em>. Irene: This one is more defined as a … <em>(pointing to the bottom part of Rising Heat)</em> more like a heavy bottom then this one. This one you can take it coming from the top or coming from the bottom but you really have a choice to create what you’re Irene is again confused, and does not respond to Iris’s idea about the relation between the titles and interpretation of art. Then silence occurs. Irene could ask Iris to clarify the titles of two artworks again if she was confused, but she did not do that. Iris turns the topic of conversation to the <em>Light Pillar</em>. From this, they exchanged each one’s observation and interpretations of the work based on observation. Irene analyzes the <em>Rising Heat</em> in comparison to the <em>Light Pillar</em>. She still implies the visual features or composition are from the space shuttle.</td>
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</table>
Table 4.2 - continued

<table>
<thead>
<tr>
<th>Pair</th>
<th>Talk</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I (R1P9)</td>
<td>thinking what’s happening. And this one has a heavier bottom where the heat is coming from… the smoke? Iris: The source of something. You know what just happened to me, thought? We were looking at this one which is predominantly orange and warm tones. And my eyes shifted over here towards the right. And immediately popped out were the contrary colors. You’ve got orange and blues, which are opposite each other on the color wheel, and because of that it had so much energy and so much brilliance that the teal green on either side of the bright yellow just popped out at me. So he has a lot of complementary color scheme going on, actually. That’s pretty interesting. Irene: You talk about that, you know, if you look at the one on the left, and you kind of move to the one on the right (<em>showing a demonstrational gesture of her comment</em>), the Pillar, you can almost see a continuation of the color. If you placed the one on the right on top… you can almost put them one on top of the other one. Narrow at the top, and you place the one on the</td>
<td>Iris continues comparing talk between two artworks. Irene focuses on the close relation between two artworks as a set of transition or a continuation.</td>
</tr>
<tr>
<td>Pair</td>
<td>Talk</td>
<td>Interpretation</td>
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<tr>
<td>I (R1P9)</td>
<td>right on top you would have a transition as it gets thinner. Iris: What I see is the muted tones would go into the muted tones on the bottom. You know what I think if fun? In the museum, that’s upstairs right now there are a few more of Trevor Bell’s pieces that would be fun to go look at together after this, you know, to see how his style has changed.</td>
<td>Iris expands the comparison to other works by the artist. She suggests looking at other works to observe the artist’s style change. Then the conversation moves to an exchange of short presentation of preferences, then ends.</td>
</tr>
</tbody>
</table>

Transcript key: R1P9=Round 1, 9th Pair, [italics]=no talk, (italics)= gestures

This excerpt shows how a member of an art-familiar pair with particular knowledge takes the lead in sharing artistic information with the other member, in this case, Iris and Irene. Visitor pairs with extensive prior experience in art would be expected to use relevant knowledge museum to construct a deeper understanding of artworks being viewed. In this case, Iris’s personal awareness from previous reading about the artworks strongly influenced Irene’s effort to make sense of the artworks. The verbal interaction process of the Irene and Iris pair is summarized in Figure 3.2.
Iris acted as a task-related helper who supported Irene’s shaping of her sense of the artwork. Iris had relevant knowledge about the artworks and the artist from previous reading. She knew about the motivation of the artist, and the information framed both her and Irene’s understandings about the artworks and enhanced each other’s analysis. For instance, the information about the artist’s intention, described above in the analysis of content section, led to their analysis of the meanings of the artworks based on the combination of colors and the titles. In this conversation, Irene’s role was to find a reasonable common analysis for both of them. This giving and receiving of assistance in conversation stimulated each member’s cognitive processes. Iris frequently raised topics of conversation and corrected Irene’s misunderstandings. Iris initiated different 9 of the 11 different topics that came up in their conversations. Also, when Irene was confused about the titles of the artworks, which led to a misinterpretation of the Rising Heat, Iris pointed out the confusion and then finished Irene’s statement.
The analysis of this exchange showed how one member of the pair guided participation by sharing content in the conversation. In this meaning-making excerpt, Irene not only introduced the background information but also corrected Iris’s misunderstanding and shared more of her own experience and knowledge for a fruitful understanding of the artworks. Iris guided Irene to a more detailed analysis of the artworks by having more relevant knowledge about them. In this case, I observed the members each taking an active role in crafting mutual understandings of the artworks and ensuring the other member was participating in appreciating the artwork that was observed.

Research in learning theory has shown that people exchange relevant ideas and information in cooperative situations in which they have been asked to complete a task together (Johnson & Johnson, 1991; Lemke, 2000). Even though the relationship between Irene and Iris was as friends with similar art-related knowledge and a positive attitude toward sharing ideas for interpreting art, Iris’s identity in this case was negotiated in the situational context. Irene was recognized as the member of the pair who valued artistic epistemic resources in the meaning-making context. In discussing the artworks throughout their conversation, the pair first talked by describing what they saw, then secondly by using these descriptions to build interpretation.

**Verbal Interaction Round 1, Theme 3: Non-expert pairs.** The average total length of conversation of non-expert visitors was approximately 3 minutes. Across the 4 non-expert adult pairs, expressing shared remembering or knowledge and using museum text as a conversation source were relatively rare. The bulk of connecting and analyzing talk of non-expert pairs occurred without explicit sourcing.

Table 4.3 shows the example conversation of verbal interaction of non-expert pairs in Round 1.
Table 4.3. Round 1 Verbal Interaction Example: Non-Expert Pairs

<table>
<thead>
<tr>
<th>Pair</th>
<th>Talk</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>(R1P10)</td>
<td>Jenn: Ummm… I have no idea.</td>
<td>Because of Jenn’s non-response, Jill reorients Jenn to observe details of the artworks as moving to the 1st floor.</td>
</tr>
<tr>
<td></td>
<td>Jill: Can we go down? I think we can.</td>
<td></td>
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<tr>
<td></td>
<td>[Going down to 1st floor]</td>
<td></td>
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<tr>
<td></td>
<td>Jill: I think it kind of looks like thermal photography.</td>
<td>Jill offers her ideas about both artworks in connection to everyday life-based knowledge. Jenn agrees with Jill’s idea.</td>
</tr>
<tr>
<td></td>
<td>Jenn: A thermal image? Oh, I can see that.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jill: The red and orange are the hot areas, and the green and blue are the cool parts, right?</td>
<td>Jill re-describes the artwork to reinforce her previous idea of thermal photography.</td>
</tr>
<tr>
<td></td>
<td>Jenn: Yeah, I think that’s it. That’s interesting.</td>
<td>Jenn again expresses a short response.</td>
</tr>
<tr>
<td></td>
<td>Jill: That’s all I can say.</td>
<td>Jill finishes representing her idea.</td>
</tr>
<tr>
<td></td>
<td>Jenn: Yeah, I agree with you.</td>
<td>Jenn agrees with Jill, then the conversation ends.</td>
</tr>
</tbody>
</table>

Transcript key: R1P10 = Round 1, 10th Pair, [*italics*] = no talk, (italics) = gestures
This excerpt shows the different interactional role of each pair member. The verbal interaction between Jenn and Jill was a one-person effort that was one-person oriented. Jenn had no previous museum experience and no particular knowledge in art; Relative to Jenn, Jill had little museum and art-related experience. This difference may have influenced the verbal interaction in Jenn and Jill’s conversation. The process map in Figure 3.3 illustrates how two non-expert museum visitors contribute ideas about the artworks to the conversations.

![Process Map](image)

Figure 3.3. Round 1 Verbal Interaction Process for Non-Expert Pairs.

Jill started her conversation by asking Jenn’s opinions about the artworks, but Jenn said, “I have no idea,” and gave no other feedback. Jill then suggested going down to the first floor for a closer look, and expressed her observation as a way to encourage Jenn’s responses. Jenn responded, but her comment was simple agreement, with no added observation or even simple agreement that might have indicated some understanding about how to read artworks. Of the pair, only Jill provided sources of the conversation as a conversation leader, and Jenn simply replied
as a responder. Jenn saw the artwork as a representation of thermal photography, and Jill agreed with her. Jenn’s understandings and expectations about the artworks influenced and determined both persons’ understanding of the artworks. Jenn simply accepted Jill’s ideas and did not try to find other viewpoints. Her passive attitude seemed to inhibit the fluidity of the conversation. In this pair, Jill worked relatively hard throughout the entire conversation while Jenn gave very short answers that suggested she was paying scant attention to Jill and the artworks, without much energy or investment.

Jenn’s attitude may be interpreted as a fear of expressing her own ideas about art or a lack of ideas due to her lack of art-related knowledge. Survey research in learning theory has indicated that fear of public speaking is quite common for people (Motley, 1988; Neer, 1987). On the other hand, Jenn’s not expressing opinions may have resulted from her low emotional involvement in the learning situation. Research in cooperative learning theory from a constructive perspective has indicated one kind of evidence of a cooperative attitude is the expression of ideas and feelings (Johnson & Johnson, 1987). In general, cooperative learning experiences promote individuals’ desires to present their ideas and answers, resulting in more positive emotional involvement and positive attitudes toward the subject area (Johnson & Johnson, 1983, 1987). In order for cooperative learning to occur, however, individualistic and cooperative involvements and goals should be combined (Johnson & Johnson, 1987; Sharan, 1994). For Jenn, one possible benefit of the conversation with Jill may have been insights into how to more fully view the artworks. For Jill, a benefit of the conversation could have been increased confidence in her initial descriptions if Jenn had been more accepting. However, in this case, Jenn’s relatively low individualistic involvement and efforts to achieve may have diminished the benefits for both she and Jill.
Summary of Round 1 Data

Table 5 shows the summary of the content of the conversation data from Round 1.

Table 5. Summary of Frequencies in Content Categories from Round 1 Conversation

<table>
<thead>
<tr>
<th>Category</th>
<th>Art-familiar pairs</th>
<th>Other pairs (4 non-expert + 1 mixed pair)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response talk</td>
<td>20.6%</td>
<td>21.8%</td>
<td>20.8%</td>
</tr>
<tr>
<td>Perceptual talk</td>
<td>48.9%</td>
<td>51.5%</td>
<td>49.7%</td>
</tr>
<tr>
<td>Abstract interpretation talk</td>
<td>2.9%</td>
<td>0.9%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Personal engagement talk</td>
<td>4.1%</td>
<td>10.4%</td>
<td>6.2%</td>
</tr>
<tr>
<td>Connecting &amp; synthesizing talk</td>
<td>19.9%</td>
<td>2.5%</td>
<td>14.1%</td>
</tr>
<tr>
<td>Other</td>
<td>3.6%</td>
<td>12.9%</td>
<td>6.9%</td>
</tr>
</tbody>
</table>

n= 616 topical ideas uttered across the 20 adult pair members

Of the content in the 10 paired conversations in Round 1, perceptual talk occurred most frequently (49.7%), and abstract interpretation talk (2.3%) least frequently. The portion of connecting and synthesizing talk that contained art-related knowledge connections was relatively higher (14.1%) than personal engagement talk (6.2%), which illustrates attempts to understand art in relation to everyday life. This result may be based on the large proportion of participants in Round 1 that had some particular artistic knowledge about the artworks, or at least some artistic knowledge with which to frame an understanding of the artworks. Across five art-familiar pair cases (the ones with 3-5 or more art classes), the portion of connecting and synthesizing talk was relative higher (19.9%) than those comments coded as “other” (3.6%).

Lachapelle (2007) distinguished between non-expert and expert viewers of art, attributing differences in the amount of knowledge about art to the amount of college-level training in the fine arts. Among some not-interested art participants and art-interested participants in Round 1
there were no obvious differences. For example, both groups mostly relied on everyday experience-based knowledge, feelings, or preferences rather than on disciplinary knowledge in constructing understandings of the artworks. Also, both groups focused on and analyzed the details or appearance of the artworks, but were unable to determine what the artworks might mean. Yet, their conversations demonstrated a wide range of art-viewing skills, imagination, and content. According to studies by Lachapelle (1994, 2005), non-expert viewers had these characteristics. In this study, however, some participants who were art-familiar participants (had taken 3 or more art classes) showed differences from the non-expert participants (never, 1-2 classes). Their conversation mostly involved historical art knowledge or art experience that could be interpreted as experts’ processes (Efland, 2002).

From Round 1 data, I recognized that not-interested art participants and art-interested participants could be combined as non-experts for this study. As a specific category of art museum visitor, non-expert pair groups showed a wide range of differences in art-viewing skills, art-viewing experiences, and verbal interactions. Consequently, I decided to further investigate non-expert pairs in Round 2. Lachapelle (2007) contended that art museum professionals have used the term “dumbing down” (p.123) in describing their provision of information for the non-expert public. This notion leads to misunderstandings about the ways in which visitors respond to a work of art, e.g., simply accepting historical art approaches as the truth. I hoped that focusing on non-expert pairs in Round 2 would give me a better understanding of what museum visitors who are non-experts do in constructing their museum experience. In addition, I believed that focusing on non-expert pairs would yield insights for art museum educators and researchers as they consider what would be useful in improving the public’s viewing experience. Therefore, Round 2 focused on the conversations of non-expert visitor pairs. The frequency of museum visit was not limited in order to assure a wide range of the frequency of museum visits of non-experts.

Most individuals in pairs engaged in verbal interaction processes through speaking, listening, reflecting, and responding in conversations. In the continuous processes, each one in pairs was naturally performed a particular role in the conversation such as an information
provider, questioner, responder, task-maker, or others. An interesting finding from the art-familiar pairs was that some pair members had particular artistic knowledge about the art being viewed, and that this knowledge framed the content of the conversation as well. Art-familiar pair members used some artistic knowledge and combined knowledge to interpret art in the extensive discussion that would often take place over a considerable time during their visit. Therefore, the one who had the particular artistic knowledge became an information-provider in the conversation, and this information became the basis of the content of the conversation between the pair. At the same time, the verbal interactions and roles of members of non-expert pairs, which included both not-educated in art and art-interested, varied.

In focusing on non-expert pairs in Round 2, I believed I might gain a better understanding of the process by which museum visitors who are non-experts construct their museum experience. I believed that this focus on non-expert pairs would provide insights for art museum educators and researchers seeking to identify what information would be most useful in improving the viewing experience of non-expert visitors. Thus, Round 2 concentrated on the conversations of non-expert pairs, as determined by the extent of college-level art classes previously taken.

**Chapter Summary**

This study analyzed the content of conversation by analyzing category across all participants in order to explore how individuals in pairs formulate interpretation of artworks in the art museum gallery through conversation in pairs. Investigating of verbal interaction processes in paired conversation was to study how participants interacted with each other to make meanings and senses art in the art museum together. This chapter described the findings from Round 1 data which had any types of adult pair participants to base understanding about the nature of paired conversations and to inform the subsequent round.
CHAPTER 5

ANALYSIS OF ROUND 2 DATA

This chapter contains a description of the participants and conversations from Round 2 which was subsequent round after Round 1. The description of conversations and content and verbal interaction analysis of Round 2 data are presented in this chapter.

Analysis of Round 2 Data: Non-Expert Pairs

Characteristics of Participants: Round 2

In Round 2, this study focused on non-expert pairs as a specific category of museum visitors. Nearly half of the participants in Round 2 were female (9 out of 20); slightly over half were male (11 out of 20). The level of art class experience was limited to never or 1-2 classes. Of the participants, 12 had no college-level art class experiences and 8 individuals had 1-2 art class experiences. The level of museum experience varied, but most were occasional museum visitors, and none were enthusiastic museum visitors (6 or more times). Six of the Round 2 participants were first-time visitors, 12 were occasional visitors (1-2 times), and 2 frequent visitors (3-5 times). Also, 13 individuals answered that this museum visit was their first to the MOFA. The social relationship of most of the pairs in Round 2 was friends (5 pairs out of 10 pairs). In addition, there were two family pairs and three couple pairs.

In the analyses of Round 2 data, I found that every non-expert pair in the study exchanged talk with art- or artworks-related content while in the art museum. The average length of conversations was 1 minute 32.3 seconds, which is much shorter than the average length in Round 1 (3 minutes 51 seconds). From the 10 paired conversations, I identified 121 conversational turns, 227 segments, and 232 topical ideas.

Content of the Conversations: Round 2

Pair K (Kate and Kyle). Kate and Kyle were a couple, and this was the first visit to the MOFA for both of them. Kate reported that she visited museums 1-2 times in a year, and Kyle 3-
5 times in a year. They had their conversation on the second floor with no reading of labels and no close look at the artworks. They talked quite slowly with several pauses during each one’s turn, but there was no obvious silence throughout the entire conversation. Their conversation proceeded for 1 minute 32 seconds.

Kate showed more affective responses toward the artworks. She said, “It’s so bold and happy to me. I don’t really have a real concept of something specific when I look at it. It’s more of a feeling that I get from it, a good energy feeling.” Kyle did more initial analysis on the look of the artworks like, “It feels like something with water falling. The one on the left is more sky like…. It has more form to it at the bottom. It reminds me of something I can’t tell what. It’s almost bottle shaped. But, yes… the colors are very bright.”

**Pair L (Lisa and Lori).** Lisa and Lori were sisters who had never visited the art museum before. Lisa was a first-time museum visitor, and Lori indicated that she visited museums 1-2 times in a year. They had the entire conversation on the second floor without checking labels or looking closely at the artworks. At the time of their visit, a chair was on the second floor that was not normally placed in that location. Lisa sat down in the chair, and Lori stood nearby. The entire length of their conversation was 1 minute 16 seconds. Their exchange was quite rapid with few pauses and no silence between their comments.

Lisa’s first comment, “Which one do you like better?” focused the conversation that followed on exchanging individual preferences. Both stated personal preferences, and included descriptions of the artworks to explain the preferences. The following excerpt shows how their affective response combined with perception of visual features about the artworks:

Lori: I like the blue one better.
Lisa: Why?
Lori: I like… they both feel like flames to me…there’s some kind of flames. But I like the blue one more because of the streak down the middle.

(…)

Lori: Which one do you like better?
Lisa: Personally, [pause] I like the blue one just because the weight of it. It seems more balanced with the heavier bottom. And [pause] the lighter ones on top. I like this one. And I like the orange one, but it’s a different feeling. I mean, they both have a lot of weight towards the bottom, but this one is more evenly distributed throughout and I like the colors more.

**Pair M (Mary and Matt).** Mary and Matt, a couple, wore the same-colored t-shirts. The visit was the first visit for Mary, and they both answered that they visited museums 1-2 times in a year. Right after beginning their conversation, Mary became aware of a couch on the first floor and suggested that they go sit on it. They sat on the couch during the entire conversation, so they did not read labels. In the latter part of conversation, Matt seemed to be bored, but he did not make any effort to finish the conversation. They talked for 3 minutes 13 seconds.

In the early part of their conversation (until the 10th segment of 37), Matt described how the artworks looked to him using various words connected with everyday life, such as “…a medieval torture device in the middle of it,” “…what happens if you look at the sun too long,” and “…like the back of a jet at an air show.” In response to his comments, Mary expressed her feeling about the colors of the artworks with some remarks reflecting personal engagement. Her comments changed the topic of their conversation:

Mary: When I look at them I don’t so much think about what they are meant to be, but how beautiful the colors are, how warm they make me feel. You know, the colors sort of resonate for me emotionally for me and make me feel happy.

Matt: Looks like a rainbow to me.

Mary: Well, rainbows are happy, too.

Matt: uh? (chuckle), yeah, most of the time.

Mary: Yeah, I grew up with Rainbow Bright. It goes back to my childhood. All the colors around you are very bright and vivid colors.

From Mary’s expression of her personal connection with the artworks, the pair talked shared ideas about how people feel differently about colors.
Mary: The colors are so bright there is no room for any unhappiness.

Matt: I don’t know about that.

Mary: Really? Do you think there is some unhappiness in either of these paintings?

Matt: Well... different people associate different colors with different things.

Mary: Well, what do you associate these with?

Matt: No, I would say the same thing. But I wouldn’t say it’s universal.

Mary: Really?

Matt: Um-hmmm.

**Pair N (Ned and Nora).** Ned and Nora were family members, sister and brother, who had visited the MOFA before. Ned was an occasional museum visitor, and Nora was a frequent museum visitor. After a few exchanges of each one’s quite opposite judgments about the artworks, they moved to the first floor and read the labels. The length of their conversation was 1 minute 48 seconds.

After a quick exchange of individual judgments about the artworks, Nora read the labels aloud to check the information on the artworks. When she read the artist’s name, she guessed that the artist was a graduate of FSU. In fact, the artist was a faculty member and not a graduate of FSU, but there was no further information about the artist and artworks in the art museum. So, Nora and Ned continued their interaction with this misunderstanding through the end of the conversation. Nora connected her ideas to the titles after reading the labels. The following excerpt shows how their individual impression with analysis of visual features about the artworks was exchanged:

Ned: I tell you my impression being closer to the work. It has a much larger impact, being underneath it. Looking up at it, it is much more engaging… the feeling of being close to it. I feel more like...

Nora: I feel like… specific energy like heat and light. When you look at it from far it just looks like [pause] the colors are splashed. You have more of an experience of what he’s trying to do when you are standing underneath it.
Ned: From down here, the warm colors make a nice contrast.

**Pair O (Olive and Omar).** Olive and Omar were friends taking the same course. They stated that their college requires one art appreciation class for all students, so they visited the art museum to do their homework. They both were first-time museum visitors, and first-time visitors of the MOFA. They stayed on the second floor for the entire conversation, and spent 8 seconds in silence before starting the conversation. Their conversation continued for 1 minute 41 seconds, but there were several silences for 13 seconds after the conversation started. They talked in very low voices, and Olive especially seemed hesitant to express her thinking during the conversation.

Although Olive was curious about who made the artworks, the pair did not find an answer because they did not notice the labels. Omar tried to go beyond just describing, like guessing the theme and presenting his personal judgment, as in “It could be a summer-winter kind of theme,” and “It’s a very elegant piece.”

**Pair P (Penny and Pete).** Penny and Pete were friends. Penny was a first-time museum visitor; Pete was an occasional visitor, and he had visited the MOFA before. They stayed on the second floor while they conversed, which meant no reading of labels and no closer look at the artworks. Before starting their conversation, they were silent for 3 seconds, and there was a second silence after Pete’s first comment. They had a very brief conversation for 34 seconds, including all the silences. Both Penny and Pete spoke twice, and each commented on how the artworks looked after their first turn of speaking. They then exchanged an abstract interpretation of the possible theme of the artworks in their second turn of speaking.

**Pair R (Rick and Ruby).** Rick and Ruby were friends who both were first-time visitors of the MOFA. In general, however, they both were occasional museum visitors. They stayed in the second floor and stood at a distance from the artworks. They promptly began their conversation, and the conversation lasted 1 minute 25 seconds.

During the conversation, Rick gave quick responses to Ruby’s comments. Ruby revealed a positive affective response to *Light Pillar* in using the term, “…more positive,” and a negative affective response to *Rising Heat* in saying, “It was kind of sad” and “It’s negative.” The pair
compared the two artworks by exchanging individual observations, illustrated in the following excerpt:

Rick: The blue one has a better contrast of colors. I guess they use different color patterns with the pink. And most of the painting is blue. You can see the yellow and pink in it, compared to the other one that’s mostly orange, red and yellow.

Ruby: And the colors bleed in together on both of the paintings.

**Pair S (Sara and Sean).** Sara and Sean were friends who visited the MOFA for the first time. Sara was a first-time museum visitor, and Sean was an occasional museum visitor. They visited the MOFA because of some extra time before lectures. When Sean asked Sara about her opinions about the artworks, Sara was silent for 5 seconds. The pair continued their talk for 1 minute 1 second without any gaps.

Until the last statement by Sean (“It’s definitely interesting”), Sara and Sean did not engage in many response exchanging. Instead, their entire conversation was filled with talking about individual observation about the works of art, for example “The one on the right looks like flames, kind of…the bottom, how the flames are blue,” and “It also, it is like the burners in a chemistry lab, like the Bunsen burners with the flame coming up. Maybe it is something like that…and the one on the left seems like a lava lamp to me.” While Sean tried to offer his abstract or overall interpretation of the meaning of the works, he was unable, saying, “I am not quite sure what that represents.” The conversation then ended.

**Pair T (Todd and Tyra).** Todd and Tyra were a couple, and that day was the first visit to the MOFA for both of them. Tara was an occasional museum visitor, and Todd was a first-time museum visitor. The length of their conversation, 32 seconds (including 5 seconds of silence,) was the shortest among all participants in both Rounds 1 and 2. After a silence, Tyra started the conversation with an expression of her preference for the colors, and Todd responded with some perceptual statements. The conversation was over after Tyra’s short response “yeah”.

**Pair W (Wes and Will).** Wes and Will were friends who were occasional museum visitors. That day was Wes’s first visit to the MOFA; Will seemed comfortable using the
museum facility because Will had visited the MOFA before. They conversed on the first floor for 2 minutes 16 seconds.

Will read aloud the *Light Pillar* label while Wes viewed *Rising Heat*. When Wes heard Will’s reading, Wes checked the location of the label, and read aloud the label for *Rising Heat*. After reading aloud they were silent for 4 seconds, then Will re-started the conversation with his emotional response. Wes also commented with his emotional response with some observational evidences. Their analyses continued almost until the end of the conversation. Will guessed that the colors were the important element for the meaning of the artworks, saying, “I think the colors are probably what speak to us most about these pieces,” but he did not extend his thinking to the meaning of the artworks.

**Findings from Round 2 Data**

**Content Analysis**

Table 6.1 presents the frequencies of responses in the major content categories in the conversation between Kate and Kyle. During the conversation, both Kate and Kyle exchanged their perceptions of how the artworks looked to them, and made no connections to personal experiences or knowledge.

Table 6.1. Kate and Kyle Conversation Frequencies by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response talk</td>
<td>5</td>
</tr>
<tr>
<td>Perceptual talk</td>
<td>10</td>
</tr>
<tr>
<td>Abstract interpretation talk</td>
<td>4</td>
</tr>
<tr>
<td>Personal engagement talk</td>
<td>0</td>
</tr>
<tr>
<td>Connecting &amp; synthesizing talk</td>
<td>0</td>
</tr>
<tr>
<td>Others</td>
<td>4</td>
</tr>
</tbody>
</table>
Table 6.2 presents the frequencies of responses in the major content categories in the conversation between Lisa and Lori. Their conversation focused on expressing personal preferences with simple statements of the visual features of the artworks.

Table 6.2. Lisa and Lori Conversation Frequencies by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response talk</td>
<td>10</td>
</tr>
<tr>
<td>Perceptual talk</td>
<td>9</td>
</tr>
<tr>
<td>Abstract interpretation talk</td>
<td>0</td>
</tr>
<tr>
<td>Personal engagement talk</td>
<td>0</td>
</tr>
<tr>
<td>Connecting &amp; synthesizing talk</td>
<td>0</td>
</tr>
<tr>
<td>Others</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 6.3 presents the frequencies of responses in the major content categories in the conversation between Mary and Matt. Mary and Matt described the visual features in association with objects or phenomenon in everyday life-based knowledge, and extended their talk to issue about understanding and responding art in general.

Table 6.3. Mary and Matt Conversation Frequencies by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response talk</td>
<td>10</td>
</tr>
<tr>
<td>Perceptual talk</td>
<td>12</td>
</tr>
<tr>
<td>Abstract interpretation talk</td>
<td>0</td>
</tr>
<tr>
<td>Personal engagement talk</td>
<td>8</td>
</tr>
<tr>
<td>Connecting &amp; synthesizing talk</td>
<td>3</td>
</tr>
<tr>
<td>Others</td>
<td>4</td>
</tr>
</tbody>
</table>
Table 6.4 presents the frequencies of responses in the major content categories in the conversation between Ned and Nora. Most of the time, they exchanged observations, especially focusing on how the artworks appeared based on viewing perspectives. Also, Nora tried to interpret the theme or the meaning of the artworks in association with the given titles.

Table 6.4. Ned and Nora Conversation Frequencies by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response talk</td>
<td>13</td>
</tr>
<tr>
<td>Perceptual talk</td>
<td>13</td>
</tr>
<tr>
<td>Abstract interpretation talk</td>
<td>1</td>
</tr>
<tr>
<td>Personal engagement talk</td>
<td>0</td>
</tr>
<tr>
<td>Connecting &amp; synthesizing talk</td>
<td>0</td>
</tr>
<tr>
<td>Others</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 6.5 presents the frequencies of responses in the major content categories in the conversation between Olive and Omar. Their comments mostly described the visual features of the artworks.

Table 6.5. Olive and Omar Conversation Frequencies by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response talk</td>
<td>3</td>
</tr>
<tr>
<td>Perceptual talk</td>
<td>16</td>
</tr>
<tr>
<td>Abstract interpretation talk</td>
<td>1</td>
</tr>
<tr>
<td>Personal engagement talk</td>
<td>0</td>
</tr>
<tr>
<td>Connecting &amp; synthesizing talk</td>
<td>0</td>
</tr>
<tr>
<td>Others</td>
<td>1</td>
</tr>
</tbody>
</table>
Table 6.6 presents the frequencies of responses in the major content categories in the conversation between Penny and Pete. Penny and Pete had a short conversation, and trying to understand the overall theme of each artwork.

Table 6.6. Penny and Pete Conversation Frequencies by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response talk</td>
<td>1</td>
</tr>
<tr>
<td>Perceptual talk</td>
<td>3</td>
</tr>
<tr>
<td>Abstract interpretation talk</td>
<td>2</td>
</tr>
<tr>
<td>Personal engagement talk</td>
<td>0</td>
</tr>
<tr>
<td>Connecting &amp; synthesizing talk</td>
<td>0</td>
</tr>
<tr>
<td>Others</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 6.7 presents the frequencies of responses in the major content categories in the conversation between Rick and Ruby. They described the artworks with the influence of their first counter impression of each artwork.

Table 6.7. Rick and Ruby Conversation Frequencies by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response talk</td>
<td>8</td>
</tr>
<tr>
<td>Perceptual talk</td>
<td>15</td>
</tr>
<tr>
<td>Abstract interpretation talk</td>
<td>0</td>
</tr>
<tr>
<td>Personal engagement talk</td>
<td>0</td>
</tr>
<tr>
<td>Connecting &amp; synthesizing talk</td>
<td>0</td>
</tr>
<tr>
<td>Others</td>
<td>1</td>
</tr>
</tbody>
</table>
Table 6.8 presents the frequencies of responses in the major content categories in the conversation between Sara and Sean. They focused on perceptual talk which described how the artworks look like to them with relatively low frequency of response talk.

Table 6.8. Sara and Sean Conversation Frequencies by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response talk</td>
<td>1</td>
</tr>
<tr>
<td>Perceptual talk</td>
<td>14</td>
</tr>
<tr>
<td>Abstract interpretation talk</td>
<td>0</td>
</tr>
<tr>
<td>Personal engagement talk</td>
<td>0</td>
</tr>
<tr>
<td>Connecting &amp; synthesizing talk</td>
<td>0</td>
</tr>
<tr>
<td>Others</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 6.9 presents the frequencies of responses in the major content categories in the conversation between Todd and Tyra. Their conversation was filled with a few exchanges of response talk then finished.

Table 6.9. Tyra and Todd Conversation Frequencies by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response talk</td>
<td>4</td>
</tr>
<tr>
<td>Perceptual talk</td>
<td>1</td>
</tr>
<tr>
<td>Abstract interpretation talk</td>
<td>0</td>
</tr>
<tr>
<td>Personal engagement talk</td>
<td>0</td>
</tr>
<tr>
<td>Connecting &amp; synthesizing talk</td>
<td>0</td>
</tr>
<tr>
<td>Others</td>
<td>1</td>
</tr>
</tbody>
</table>
Table 6.10 presents the frequencies of responses in the major content categories in the conversation between Wes and Will. Along with stating of observational evidences with emotional response about the artworks, they tried to guess the theme or the intention of the artworks without any explicit resource.

Table 6.10. Wes and Will Conversation Frequencies by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response talk</td>
<td>12</td>
</tr>
<tr>
<td>Perceptual talk</td>
<td>14</td>
</tr>
<tr>
<td>Abstract interpretation talk</td>
<td>3</td>
</tr>
<tr>
<td>Personal engagement talk</td>
<td>1</td>
</tr>
<tr>
<td>Connecting &amp; synthesizing talk</td>
<td>0</td>
</tr>
<tr>
<td>Others</td>
<td>3</td>
</tr>
</tbody>
</table>

**Verbal Interactions: Round 2**

I observed that friends jointly built up understandings by sharing bits of their past with each other. When they talked, each one presented an idea, which they adjusted or discussed to construct shared meanings surrounding the works. On the other hand, in some pairs, one member repeatedly presented ideas while the other offered only simple short responses. I documented how exchanging ideas allowed the pairs to shape their current understandings of the artworks in the art museum gallery. Across the 10 non-expert pairs in Round 2, expressing shared remembering or knowledge and using museum text as a conversation source were relatively rare. The bulk of art-related talk of non-expert pairs occurred without explicit sources. I provide one case of each interaction theme to illustrate these types of interactions in the conversations.

**Verbal Interaction Round 2, Theme 1: Greater Appreciation through Mutual Feedback.**

Table 7.1 provides an example of *Greater Appreciation through Mutual Feedback*) in the verbal interaction between the non-expert pairs in Round 2.
Table 7.1. Round 2 Verbal Interaction Example: Greater Appreciation through Mutual Feedback

<table>
<thead>
<tr>
<th>Pair</th>
<th>Talk</th>
<th>Interpretation</th>
</tr>
</thead>
</table>
| N    | Nora: Ok. What do you think of these? I like the shape of the canvas.                                                                                                                                   | Nora starts the conversation with positive preference of the artworks.  
Ned: I don’t think this is art. Because this looks way too easy, a child could do it. You could just throw some paint on a canvas.   
Nora asks Ned to consider the value of the artworks and encourages him to observe closely.|
| R2P14| (…)                                                                                                                                                                                                   | Ned expresses immediate given negative judgment of the artworks. He seems confident with his judgment based on his own value of art. This statement was spoken rapidly.        |
|      | Nora: Who did this? A student? Can we walk down? Look at the…                                                                                                                                          |                                                                                                                                                                                                    |
|      | (Going down to the first floor)                                                                                                                                                                          |                                                                                                                                                                                                    |
|      | Nora: *(Reading aloud the label of Light Pillar)* Light Pillar, 1982. Well that makes sense, 1982, OK. I guess an FSU grad. *(Moving to the other label, then reading aloud the label of Rising Heat)* Trevor Bell, Rising Heat. The same person, OK.   
Nora reads the labels and offers her own guess about the artist.  
She makes sense between the information of the artworks and her own understanding. |
<p>|      | Ned: <em>(looking up)</em> I tell you my impression being closer to the work. It has a much larger impact, being underneath it. Looking up at it, it is much more impactful.                                              | Ned offers his impression without much detailed description of the visual.                                                                                                                                    |</p>
<table>
<thead>
<tr>
<th>Pair</th>
<th>Talk</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>more engaging… the feeling if being close to it. I feel more like…</td>
<td>features, but rather based on the viewing perspective.</td>
</tr>
<tr>
<td>(R2P14)</td>
<td>Nora: I feel like… specific energy like heat and light. When you look at it from far it looks like [pause] the colors are splashed. You have more of an experience of what he’s trying to do when you are standing underneath it.</td>
<td>Nora tries to frame her understanding based on the titles. And she agrees with Ned’s previous comments about the viewing perspective.</td>
</tr>
<tr>
<td></td>
<td>Ned: From down here, the warm colors make a nice contrast.</td>
<td>Ned reinforces his preference of the viewing perspective (from below), and expresses his positive response to the work, unlike his first comment.</td>
</tr>
<tr>
<td></td>
<td>Nora: Yeah, it’s better from down here. I don’t like it from far away. It looks too contrived or something from far away. [pause] I like the colors on the top, how there is a little bit of lavender. But… I don’t know. [pause] its okay.</td>
<td>Nora agrees with Ned’s perspectives, and tried to think the artworks in more various points.</td>
</tr>
<tr>
<td></td>
<td>Ned: I feel like where you view it makes a difference… like this is very interesting looking up at it.</td>
<td>Ned changes his overall judgment of the artworks before finishing this conversation.</td>
</tr>
</tbody>
</table>

Transcript key: R2P14 = Round 2, 14th Pair, [italics] = no talk, (italics) = gestures, (...) = omit certain parts
Ned and Nora had previous museum experience in the MOFA, so they seemed to have had some general information about the art museum. Nora’s guess that the artist was an FSU graduate or a student may have been based on her understandings about the MOFA and its characteristics as a university art museum.

The concept map in Figure 4.1 illustrates how two non-expert museum visitors contributed ideas about the artworks to the conversations.

![Concept Map]

Figure 4.1. Round 2 Verbal Interaction Process of Greater Appreciation through Mutual Feedback

This map and the previous excerpt from the transcripts illustrates how a member of a non-expert pair tried to orient the other member to look at the artworks carefully before making a quick judgment. Ned made a quick, negative judgment about the artworks with his first comment, “I don’t think this is art. Because this looks way too easy, a child could do it. You could just throw some paint on a canvas.” In response, Nora led him to take a more careful look through feedback about his comment. As a way to encourage Ned to think or see more, Nora read aloud
the museum texts to Ned; moreover, she made connections to the artworks with her own interpretations about the texts. After Nora read the labels aloud, both Ned and Nora used observations about the artworks in the conversation. Nora seemed to hold the belief that to understand art, factual information, especially the title, is key to interpreting the artworks. Throughout this transcript excerpt, Nora encouraged Ned to comment in relation to her detailed observations and the museum texts.

This interchange, with its elements of perceptual talk in coordination with the sharing of facts, has parallels with the work of Zimmerman et al. (2009), in which family members, particularly parents, incorporated given resources into their understandings. Nora read aloud the texts that the art museum provided to make them more available for their conversation. She did not directly encourage Ned to think about the artworks in relation to the titles; rather, she shared her own analysis, such as, “specific energy like heat and light.” Her analysis may have influenced Ned’s observations or interpretations about the artworks, even though he continued to focus on his personal viewing perspectives rather than offer abstract or overall interpretations in connection to the titles. Ned ended the conversation with a changed attitude toward the works, however, as suggested by his use of the word “interesting.”

Here, Ned’s talk with Nora, who held different attitudes and ideas about the artworks, influenced his understanding and changed his initial (or naïve) response. Nora did not have enough background knowledge to provide more information or art-related knowledge for better understanding of the artworks, thus she used only the information provided by the museum texts in her comments.

It is important to note that in non-expert pairs with similar art-related knowledge, one member can contribute to greater understanding by the other member through feedback. Mackworth (1970) reported that getting personalized feedback from another person increases the extent of learning. Nora provided her understandings that tempered Ned’s aggressive or negative impulses. Researchers in cooperative learning theory (Johnson & Johnson, 1989; Johnson et al., 1991) have reported that individuals frequently are unwilling to accept delays in gratification in
learning contexts. Interaction between individuals who had similar knowledge in a particular domain helps modulate the immediacy of such impulses (Johnson et al., 1991). Ned and Nora’s exchange illustrates how interactions between non-experts can guide or enhance each other’s participation in viewing art in museums. Their exchange did not indicate that Ned had adopted Nora’s attitude, however, it may be one of several processes that moved him toward more careful observation or more extended appreciation of the artworks that might ultimately lead to a better understanding of the works.

**Verbal Interaction Round 2, Theme 2: With a Pair Member with Oppositional Approach in the conversation.** Table 7.2 shows a sample excerpt of verbal interaction characterized by *with a pair member with oppositional approach in the conversation* of non-expert pairs in Round 2.

Table 7.2. Round 2 Verbal Interaction Example: With a Pair Member with Oppositional Approach in the conversation

<table>
<thead>
<tr>
<th>Pair</th>
<th>Talk</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>M (R2P13)</td>
<td>Matt: <em>(looking at the Light Pillar)</em> Looks like a rainbow with a medieval torture device in the middle of it. Mary: Yeah, really. Matt: kind of weird actually. And… <em>(pointing to the Rising Heat)</em> that on the left is what happens if you look at the sun too long. Mary: Yeah, I can see how you’d see the sun in them. And this one, <em>(pointing the Light Pillar)</em> it’s almost like the sun is coming out of something. You know, like between something.</td>
<td>Matt comments about how the work looks to him in relation with his personal resources. Mary easily gets his idea. Matt expresses the look of the work also personal resources. Mary and Matt share Matt’s idea.</td>
</tr>
</tbody>
</table>
Table 7.2 – continued

<table>
<thead>
<tr>
<th>Pair</th>
<th>Talk</th>
<th>Interpretation</th>
</tr>
</thead>
</table>
| M (R2P13) | Matt: Like the back of a jet at an air show.  
(\textit{laugh}) | He makes another comment about the look of the work.  
Matt’s continuous repeating of light observational comments makes their conversation a casual one. |
<p>|        | Mary: When I look at them I don’t so much think about what they are meant to be, but how beautiful the colors are and how warm they make me feel. You know, [\textit{pause}] the colors sort of resonate for me emotionally for me and make me feel happy (\textit{chuckle}). | Mary expresses her emotional response to the works as another topic of the conversation. |
|        | Matt: Looks like a rainbow to me.                                      |                                                                                   |
|        | Mary: Well, rainbows are happy, too.                                    |                                                                                   |
|        | Matt: Uh? (\textit{giggling}) yeah, most of the time.                  | Matt keeps his initial observation without responding to Mary’s comment.            |
|        |                                                                       | Mary tries to connect her emotional response with Matt’s observational in relation to his connection of rainbows to the meaning of “happy,” and he does not quite agree. It seems he said “most of the time” to avoid serious discussion. |</p>
<table>
<thead>
<tr>
<th>Pair</th>
<th>Talk</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>M (R2P13)</td>
<td>Mary: Yeah, I grew up with Rainbow Bright. It goes back to my childhood. All the colors you are around are very bright, vivid colors. Matt: Yeah, <em>(giggling)</em>. Mary: And the colors are so bright there is no room for any unhappiness. Matt: I don’t know about that. Mary: Really? Do you think there is some unhappiness in either of these paintings? Matt: Well… different people associate different colors with different things. Mary: Well, what do you associate these with? Matt: No, I would say the same thing. But I wouldn’t say it’s universal.</td>
<td>Mary tells about her personal experience to explain why she connects rainbows with the concept of “happy.” Before this comment, Matt continuously giggles. He then expresses his counter opinion about Mary’s concept of rainbows and happiness. Mary is surprised by Matt’s counter-opinion. Matt broadens the topic toward how people think differently about colors. Mary wants to know what he got from the artworks as related to his previous statement. She seems to disagree with or doesn’t understand his opinion. Matt said he has the same ideas about the artworks, but he continues his previous</td>
</tr>
<tr>
<td>Pair</td>
<td>Talk</td>
<td>Interpretation</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>----------------</td>
</tr>
<tr>
<td>M (R2P13)</td>
<td>Mary: Really?</td>
<td>Mary expects to hear Matt's opposite opinion about the artworks, but Matt shows a vague attitude toward Mary’s perspective. As the result, Mary keeps asking Matt to figure out. Matt tried to stop to let Mary to continue the topic.</td>
</tr>
<tr>
<td></td>
<td>Matt: Um-hmm.</td>
<td>He does not want to continue the conversation in a serious mood.</td>
</tr>
<tr>
<td></td>
<td>Mary: Do you think someone would look at these and… I can’t imagine that and feeling anger and hate.</td>
<td>Mary does want to switch the topic, but she senses Matt is not in a serious mood, so she talks about her previous experience about the colors. And she continues to express her feeling about the artworks within the concept of “happiness”. Matt does not respond to Mary’s comment. He seems tired of the topic.</td>
</tr>
<tr>
<td></td>
<td>Matt: Something silly like that.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mary: That’s ridiculous because… <em>(Matt laughs)</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mary: I mean, I am not particularly fond of yellow. I like all colors, but I remember at one point I painted a room yellow because it might be energizing.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Matt: Uu-hhhhhhhhh <em>(with shoulder flinch)</em></td>
<td></td>
</tr>
</tbody>
</table>
Table 7.2 – continued

<table>
<thead>
<tr>
<th>Pair</th>
<th>Talk</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>M (R2P13)</td>
<td>Mary: And it made me go crazy. But you know these aren’t yellow… these are tempered with other colors. These are multiple colors working on each other to create a mood.</td>
<td>After quite a lengthy silence, Matt realizes he needs to respond to her. After this comment, Mary made only one more comment, then their conversation ended.</td>
</tr>
<tr>
<td></td>
<td>[silence of 8 seconds]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Matt: Yeah…</td>
<td></td>
</tr>
</tbody>
</table>

Transcript key: R2P13 = Round 2, 13th Pair, [italics] = no talk, (italics) = gestures, (…) = omit certain parts

Figure 4.2 provides a concept map of *with a pair member with oppositional approach in the conversation* in the interpersonal processes between non-expert museum visitors in Round 2.
First, in considering this interaction on the individual level, it is important to note that Matt began by concentrating on the visual features of the artworks and how they looked to him. The epistemic resources Matt brought to this interaction came from his prior and personal everyday life experiences or knowledge, as indicated by his use of the descriptions “medieval torture device,” “what happens if you look at the sun too long,” or “back of a jet at an air show.” Matt seemed to be trying to connect the visual features he perceived in the artworks to experiences in his everyday life. Mary, on the other hand, demonstrated more affective responses, that is, she described how the artworks made her feel. This difference in the expressions of their experience of the artworks was reflected in the exchange of opinions in the interaction between Mary and Matt. While Matt drew parallels between his experience of the artworks and concrete images from his experience, Mary attempted early in the interaction to make connections between the artworks and an emotional experience. However, Matt rejected Mary’s
resources early on by repeatedly commenting about the visual features. Though Mary tried to connect Matt’s descriptions to her ideas, Matt joked in response. When Matt countered Mary’s connection between rainbows and happiness, they spent time discussing how people get different ideas from the same things.

During their conversation about the topic, Matt and Mary each revealed their personal perspectives and resources, and both were surprised when they found their viewpoints differed. They started the conversation with comments about the artwork, then moved to differing individual viewpoints not only about the artworks, but also about people’s perspectives about colors and other things. Through their cooperative talk, both seemed to become more confident of the value of their ideas at the same time they provided feedback and challenged each other’s ideas. An important aspect of productive cooperative learning involves the conflict that arises when cooperative group members have different epistemic structures (Johnson et al., 1991). When this occurs, individuals in conversation have the opportunity to manage the conflict constructively (Johnson & Johnson, 1989; Johnson et al., 1991). Here, Matt and Mary had conflicting perceptions, but they tried to manage this conflict through an exchange of personal resources and opinions.

In this excerpt, laughter was a key component in the conversation, and its role is integral to understanding the interaction. The epistemic resources Matt brought to this interaction came from his approach to conversations in art museums or how visitors talk about artworks. Matt maintained a light attitude in the conversation, laughing or giggling the entire time. Although Mary repeatedly asked questions in response to Matt’s differing opinion, he countered her questions by laughing or making half-joking comments, such as, “…something silly like that.” At the end of this excerpt, Matt tried to stop talking about the topic, that is, how different people feel about different colors or things, by offering relatively short responses and silence. Wardhaugh (1985) claimed that people make gestures of non-cooperation to negotiate ending conversations. A long period of silence occurred in the conversation near the end of the interaction. The silence may be construed as the way in which Matt expressed disagreement.
Researchers studying conversation have asserted that a period of silence is a potent communicative weapon that can be used to strongly present one’s opinion or increase tension (Psathas, 1995; Wardhaugh, 1985). Individuals usually try to break a silence to reduce tension by introducing a new topic; however, when a new topic is not offered, the conversation ends (Sawyer, 2001; Wardhaugh, 1985). In this excerpt, the silence marked the change point in the museum visit, and the pair ended the conversation about the artwork.

Before the silence, oppositional interaction occurred in the conversation. Mary wanted to talk more about her different perspectives about the relationship between feelings and colors, but Matt wanted to stop talking. This oppositional interaction discouraged Mary from continuing to seek to understand their different ideas and perspectives through conversation. As a result, she stopped talking and silence ensued until Matt’s said simply, as if in response, “Yeah.”

**Verbal Interaction Round 2, Theme 3: Non-Expert Pairs with the More-Museum Experienced Member.** Table 7.3 presents an excerpt that provides an example of non-expert pairs with the more-museum experienced member in the interaction of non-expert pairs in Round 2.

<table>
<thead>
<tr>
<th>Pair</th>
<th>Talk</th>
<th>Interpretation</th>
</tr>
</thead>
</table>
| W (R2P20) | Will: *(Reading aloud the label of Light Pillar)*  
Wes: Oh… *(looking for the other label, and then reading aloud the label of Rising Heat)* and Trevor Bell’s *Rising Heat*, 1982, acrylic on canvas. So [pause] what do you think about it? | Will’s reading aloud the label lets Wes know about the location and the content of the labels.  
Wes imitates Will’s action, and he asks Will’s opinions before expressing his own ideas. |
Table 7.3 – continued

<table>
<thead>
<tr>
<th>Pair</th>
<th>Talk</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>W  (R2P20)</td>
<td>[silence of 4 seconds]</td>
<td>Will is in thought, and Wes is waiting. Will provides his observation and affective responses as the response to Wes’s question. Wes also states his preferences as a response to Will’s comment. He adds his observation.</td>
</tr>
<tr>
<td></td>
<td>Will: I really like the size and the composition of the pieces. The colors really bring out a lot of different feelings...a good energy. What do you think about it? Wes: I like the colors, that’s for sure. This one’s pretty cool because it looks like it has a face in it. That’s what I get. I kind of like how it gets wide at the bottom and is skinny at the top. Makes them look bigger than they really are.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Will: Yeah, I agree with that. It definitely makes them look a lot bigger. Wes: They are very nice. I don’t know the fancy art terms, [pause] but they are pretty cool pieces. Will: It’s more [pause] of a 3-D type of look. Wes: Yeah. [silence of 6 seconds]</td>
<td>Both seem to think that they can talk more.</td>
</tr>
</tbody>
</table>
Table 7.3 – continued

<table>
<thead>
<tr>
<th>Pair</th>
<th>Talk</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>W(R2P20)</td>
<td>Will: I am trying to remember what the names are again. [pause] Rising Heat and Light Pillar.</td>
<td>Will recalls the titles to continue the conversation; he thinks the titles may help to understand the artworks.</td>
</tr>
<tr>
<td></td>
<td>Wes: Yeah, it does look like rising heat [pause] a big flame. It really speaks to the weather outside right now.</td>
<td>In a response, Wes connects his observation with the titles.</td>
</tr>
</tbody>
</table>

Transcript key: R2P20 = Round 2, 20th Pair, [italics] = no talk, (italics) = gestures, (…) = omit certain parts

Figure 4.3 presents a concept map of this verbal interaction process. This map, and the excerpt to which it corresponds, shows how the more-experienced member of a non-expert pair can help the other member to gain a greater understanding about art in a museum setting.
In the Wes and Will pair, Will had more museum experience in the MOFA. During their conversation, Will led the conversation both in actions and topics. At Will’s lead, they went down to the first floor and stood in front of the artworks during the entire conversation. Will spoke in a large voice, and moved freely between the two artworks. Wes followed Will’s moves. At the beginning of this verbal interaction process, Will read the labels aloud, making Wes aware of their existence in the art museum and the information included on the label. While Will read aloud from the label, Wes observed Will, and said in a small voice “Oh,” then moving to look for the other label. He seemed surprised not only at the existence of the labels, but also at the information on the labels. He talked in whispers “oh, it’s acrylic?” while reading the information on the labels.
In interpersonal interactions, individuals have been found to imitate each other’s behavior based on admired competencies in each other (Johnson et al., 1991; Tannen, 1984; Wardhaugh, 1985). In fact, individuals shape a wide variety of social behaviors, attitudes, and perspectives in a situated context (Johnson et al., 1991). In this case, Will, as the more experienced member of the non-expert pair, demonstrated his greater understanding with the reading of labels, knowledge presumably based on his previous museum experience. In acting on this knowledge, Will modeled the use of museum skills for Wes. Wes copied Will’s actions, an expected result of their conversation in the museum.

Will and Wes used observational evidence in their explanation of the artworks. Although they did not provide historical art or art world knowledge for each other, they exchanged observations and ideas equally, a process that promoted productive verbal interactions and effective assistance to one another. After exchanging resources through conversation, a second period of silence ensued. The first silence seemed to provide Will with adequate time to form his first comment. However, they seemed to have run out of sources for conversation when the second silence occurred. According to Wardhaugh (1985), individuals tend to fill silence when it occurs during conversation. In my cases, participants seemed to tend to search for a way to fill the hole in the conversation. Raising a new topic is one way to respond to silence, and when this happens, conversation will typically start up again (Moreman & Sacks, 1978; Wardhaugh, 1985). Especially in paired relationships, individuals abhor silence, and silences are treated almost as embarrassing; thus, a person typically follows another’s comments with more comments in rapid succession (Wardhaugh, 1985). Here, this same pattern occurred. When the pair seemed to be at a loss for topics of further conversation, Will began to talk about the titles of the artworks. After this new topic arose, the pair exchanged ideas again.

**Summary of Round 2 Data**

Table 8 summarizes the conversation content of Round 2 data.
Table 8. Summary of Frequencies in Content Categories from Round 2 Conversations

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response talk</td>
<td>29.3%</td>
</tr>
<tr>
<td>Perceptual talk</td>
<td>43.5%</td>
</tr>
<tr>
<td>Abstract interpretation talk</td>
<td>5.2%</td>
</tr>
<tr>
<td>Personal engagement talk</td>
<td>7.3%</td>
</tr>
<tr>
<td>Connecting &amp; synthesizing talk</td>
<td>1.3%</td>
</tr>
<tr>
<td>Others</td>
<td>13.4%</td>
</tr>
</tbody>
</table>

n= 232 topical ideas uttered across the 20 non-expert members

The conversation of non-expert pairs in Round 2 could be categorized mainly as *response talk* and *perceptual talk*. Throughout the case analysis of the content of the conversations of each pair in Round 2, the most frequently-occurring segments involved *perceptual talk* (43.5%) and *response talk* (29.3%). The portion of *connecting and synthesizing talk* was relatively low (1.3%) compared to Round 1 data (14.1%), as reported in Table 5. In addition, not many pairs (only 2 of 10 non-expert pairs) in Round 2 interpreted the museum resources (labels) by reading them aloud to the other member. This finding may reflect a lack of knowledge about art and art museums in non-experts, and is consistent with the characteristics of non-experts identified by previous researchers (Koroscik, 1993, 1996; Lachapelle, 2007). In the non-expert pairs in Round 2, neither member had enough previous knowledge to understand art in general or build artistic domain knowledge. In fact, most of the members of the non-expert pairs in this study used a variety of everyday life-based and cultural resources to make connections to the artworks. Members of pairs utilized knowledge derived from personal activities or shared experiences, although explicit acknowledgement of the sources for specific ideas was relatively rare across the 10 non-expert pairs in Round 2. Thus, the bulk of the connecting and analyzing talk by these participants occurred without an explicit reference to a source.

Some participants used indirect, short-hand referencing of shared personal histories that
allowed pairs to transfer personalized information into the current museum learning experience, in this way furthering their ability to make sense of the artworks. Basically, the talk of the more museum-experienced non-expert with the less museum-experienced non-expert allowed the former to take an active role in directing the conversation and provide needed resources that ultimately enhanced each other’s understandings. Such interaction exemplified the notion in cooperative learning theory of *promotive interaction*, which is defined as individuals’ encouragement and efforts to achieve mutual goals (Johnson & Johnson, 1989; Johnson et al., 1991; Sharan, 1994).

Similarly, in this study, members of non-expert pairs were observed building promotive interaction by providing and exchanging personalized resources or observed evidence to construct understandings cooperatively. From each other, they learned skills for using the museum, and shared perspectives not only about the artwork but also about broader topics. Some individuals seemed to lack the energy for an extended conversation; some made quick judgments or failed to make careful observations in the early part of the conversation. In general, however, through conversation with the more experienced member of the pairs, less-experienced members of non-expert pairs eventually took more time and effort to understand the artworks.

These cases indicated that the verbal interactions of non-expert pairs served not only as a means to share thoughts and feelings but as a vehicle for seeking more information from each other for understanding the conversation topics (Johnson & Johnson, 1987). The cases also show how non-expert pairs relied on shared personalized knowledge, mostly based on everyday life and experiences, to structure their interactions around the artistic content of the art museum.

**Chapter Summary**

This chapter described the conversations of non-expert pairs with a focus on participants in Round 2. The content and verbal interactions of the conversations were analyzed to reveal the nature of non-expert pairs’ conversations in the art museum.
CHAPTER 6

CONCLUSIONS

This study was an investigation of the conversations of adult pairs of visitors in front of works of art in the art museum gallery. Its purpose was to gain insights into the ways visitors make sense of artworks by talking together, that is, by going beyond individual constructions based on personal observations and possessions, to mutually-created constructions based on the sharing of knowledge or resources. Both the content and the verbal interactions of the conversations were analyzed, including all cases and all utterances. The verbal interaction processes involved in the meaning-making talk were analyzed in addition to the content in order to investigate the ways that knowledge was transferred and incorporated into the understandings that were jointly constructed. This chapter presents themes as discussion from findings based on the analysis of the data. Following the discussion of findings, implications that include what has been learned from listening in on museum conversations for future research and practice will be addressed in the conclusion of this report.

Discussions from Findings

The Content of Conversations

Research question 1 asked: What are the contents of their paired conversations? I found two major themes that need to be discussed in this study in relation to this question from content analysis: focusing on individual connections using knowledge transfer strategies, different degree of reasoning, abstracting and integrating between non-expert pairs and other pairs, and producing serious conversation.

Overall findings. An analysis of the conversation transcripts and questionnaires of the participants in Round 1 and Round 2 of this study yielded 848 topic segments that sorted into 6 categories, 13 properties, and 40 dimensionalized properties.
The following table presents the proportion of conversation in the major content categories across all the participants, which included 14 non-expert pairs, 5 art-familiar pairs, and 1 combined pairs.

Table 9. Content of Conversation by Category across All Participants

<table>
<thead>
<tr>
<th>Category</th>
<th>Non-expert pairs</th>
<th>Other pairs (art familiar + mixed)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response talk</td>
<td>29.1%</td>
<td>19.1%</td>
<td>23.3%</td>
</tr>
<tr>
<td>Perceptual talk</td>
<td>46%</td>
<td>49.5%</td>
<td>48%</td>
</tr>
<tr>
<td>Abstract interpretation talk</td>
<td>3.3%</td>
<td>2.9%</td>
<td>3.1%</td>
</tr>
<tr>
<td>Personal engagement talk</td>
<td>6.4%</td>
<td>6.5%</td>
<td>6.5%</td>
</tr>
<tr>
<td>Connecting &amp; synthesizing talk</td>
<td>1.1%</td>
<td>17.7%</td>
<td>10.6%</td>
</tr>
<tr>
<td>Others</td>
<td>14.1%</td>
<td>4.3%</td>
<td>8.5%</td>
</tr>
</tbody>
</table>

n= 848 topical ideas uttered across the 40 adult pair members

Across all participant conversations, the most frequently-occurring content category was *perceptual talk* (48%). The *perceptual talk* category included the statements based on individual observations about the artworks displayed in the art museum. Most pair members started their talk by exchanging individual observations, with reflecting emotional or judgmental responses. In general, participants attempted to make sense of what they observed in the art museum gallery through talk with the other member of their pair. Across all participants’ conversations, almost half of content segments (48%) involved perceptual talk, meaning that participants primarily engaged in describing and representing the appearance of artworks in their conversations. The frequency of perceptual talk in the conversations of non-expert pairs (46%) was similar to that of the participants as a whole, which suggests that most participants used the artworks as resources about which to make observations in the art museum gallery.
The interesting difference between non-expert pairs and other types of pairs was in the amount of connecting and synthesizing talk, which required some specific knowledge of art. The frequency of the connecting and synthesizing talk of non-expert pairs was 1.1%, and the frequency of other pairs was 17.7%. Even if the lack of specific knowledge about the artworks existed in pairs, art-familiar pair members continued their talk in relation to the artistic arena. Each one’s observation and personal knowledge acted as a supporting element for understanding the works of art through their conversation.

**Focusing on individual connections using knowledge transfer strategies.** Overall, the findings revealed a theme in the content of the paired conversations: making individual connections using knowledge transfer strategies. To connect themselves to the artworks in the conversation, participants utilized knowledge transfer principles and strategies in a meaning-making moment. They applied prior knowledge to construct understandings about the artworks by monitoring, reflecting upon, comparing, and improving their strategies, all of which are elements for increasing knowledge transfer that have been identified in cognitive psychology research (Brown, 1978; Lin et al., 1995; Perkins & Salomon, 1989).

When seeking to reach a common understanding, participants in this study used a wide variety of personal resources from everyday activities, such as literature, cartoons, movies, and schools, to make sense of the artworks. These resources were used mainly in conjunction with visual features in the artworks as part of the process of meaning-making. When a member of a pair offered an individual observation in conversation, he or she applied a translation of his or her artistic and non-artistic resources to the artworks. Members of pairs frequently used such comparisons between the new things they were perceiving in the artworks and prior experience or knowledge. Some examples include comparing the visual features of artworks to scientific phenomenon, finding similar features from items in everyday life, expressing impressions of the artworks in a way that connected to scenes from movies, or comparing the artworks with other artworks.

The non-expert individuals in pairs, in particular, used non-artistic knowledge gained
from everyday and pop cultural activities to make sense of the artworks. The bulk of conversations in pairs with two non-experts, in particular, focused on how the artworks looked to each of them, in relation to their everyday life-based experiences and knowledge from diverse domains. This focus on appearance may have occurred because non-experts are unable to engage other artistic resources in relation to the artworks. This lack of art-related resources is consistent with prior research about non-experts in art (Koroscik, 1990, 1996; Lachapelle, 1994, 1999). However, it must be noted that the non-expert participants also tried to become involved with the artworks, but in their own ways, by utilizing everyday life-based knowledge rather than art-related resources.

In addition, the content of conversation was communicated by various verbal and nonverbal communication forms, including joking, storytelling, and gestures for effective communication. When a person used storytelling to share a memory or experience, the sharing moment flowed better than when participants tried to express their abstract feelings or knowledge in their talk. Research about the interaction of museum visitors is consistent with these findings, since it has found that the use of a wide range of knowledge and forms of communication methods better promote knowledge transfer (Ochs & Taylor, 1992; Ochs et al., 1992; Zimmerman et al., 2009). This finding indicates that participants in pairs realized and used a wide range of communication methods to promote effective sharing in conversation.

**Different degrees of reasoning, abstraction, and integration between non-expert pairs and other pairs.** The findings also revealed differences in the proportion of connecting talk and synthesizing talk in non-expert pairs and other pairs (see Table 9). Research on cognition has found that the differences between non-expert and experts generally involve the degree of abstracting, reasoning, and memory in a specific domain (Engle & Bukstel, 1978; Chi et al., 1981; Means & Voss, 1985; Zeitz, 1994). This difference was particularly apparent when individuals were asked to combine particular features with their prior knowledge or cognition skills through diverse comparing ways (Schmidt et al., 1989; Zeitz, 1994). In a study comparing expert and non-expert strategies for understanding paintings, Schmidt et al. (1989) found that
while experts combined observations in complex arguments and analogy mapping, and used comparing, contrasting, abstracting, or reasoning for further interpretation, non-experts only made simple observations.

The finding in this study that a relatively lower frequency of connection and synthesizing talk in the conversations of non-expert pairs reflected the a similar finding on non-expert reasoning and abstracting skills in previous cognition research (Schmidt et al., 1989; Zeitz, 1994). Within the non-expert pairs, the degree to which individuals utilized their personal resources did not extend beyond the level of connecting the meanings, functions, or characteristics of mentioned features to the overall concept, meanings, or intention of the artworks or the artist. Pairs who used museum labels as a resource for their conversations usually mutually agreed that the artworks looked like what the title suggested, with a simple saying such as, “Oh – it looks like that.” They did not analyze in detail the visual elements of artworks in relation to titles. Non-experts concentrated on the most concrete, easily recognized aspects of the artworks, and largely ignored the more abstract components of essentially abstract works. Most relied primarily on a basic verbal representation of each artwork or a brief initial judgment or impression, without explicit description or reasoning, whereas some art-familiar pairs proceeded to more complex, connecting and synthesizing talks through perceptual and response talk.

The degree of reasoning by non-experts was demonstrated by their more frequent use of the phrase “I don’t know” when stating judgments or finding explicit evidence for their feelings from the artworks. Lynn et al. (1987) studied the reasons for the “I don’t know” response of people studying science. They identified three reasons: 1) if a person has received less formal instruction in the domain or regarding a difficult item, 2) if a person is uncertain about the item, and 3) if a person has no idea at all about the item. The researchers asserted that some people frequently used the phrase even when they were almost sure. They surmised that such people may use the response not only on difficult items about which they may have less previous experience or knowledge, but also to avoid giving a definite answer because of an unwillingness to take the risk of being “right” or “wrong” (Lockheed, 1975; Lynn et al., 1987).
In this study, the phrase “I don’t know” appeared when individuals before stating an overall judgment or when guessing about a concept related to the artworks. In such cases, after saying “I don’t know,” the person would diffidently share his or her opinion anyhow. One possible explanation is that they used this phrase as a threshold for expressing their uncertainty. Thus, non-expert individuals may have tried to avoid expressing a judgment or negative feelings, even to their friends with a similar degree of knowledge in art, because of the fear of taking risks or being embarrassed.

The degree of integrating by non-expert pairs was demonstrated by conversations that included talk about the best method for display, the shape of the wall behind the artworks, and the location of the artworks in the museum. Some non-expert pairs mentioned the physical condition of the art museum as an influential element in their observation. Alec and Abby, for example, talked about the location of the artwork as an influence in their experience of the artworks. Others talked about the display in terms of its being two artworks of a similar shape and size, causing them to think about the relationship between the two. It may be that the previous museum experiences or personal ability of such participants led them to the need to understand artworks within the context of the museum environment. However, complex dimensional observations and representations concerning the relationship between two artworks, display, or museum environments were relatively rare among the non-expert pairs. Some art-familiar pairs extended their talk to the influence of the museum environment on the artworks, or to alternative methods for better display, whereas few non-experts pairs mentioned this.

In any given subject, the ability to integrate and chunk information is one of the major differences between expert or domain-familiar persons and non-experts (Falk & Dierking, 2000; Schmidt et al., 1989; Zeitz, 1994). Likewise, research about museum visitor experiences has determined that experienced visitors are usually more capable to chunk contents in an exhibition or a museum through their awareness of the relationships between objects and concepts (Falk & Dierking, 2000; Kaplan et al., 1989; Koroscik, 1990).
In finding this same difference, I noted that it also can be discussed in terms of the degree to which individuals are able to see the artworks in an art museum in one dimension or multiple dimensions.

**Producing serious conversation.** An interesting characteristic of the content of the participants’ conversations was that they did not include much social talk, which means most participants focused on producing serious conversation. In addition, I found that the participants who had more comfortable behaviors, such as sitting on the couch, freely moving in between two artworks, or laughing, were relatively rare in the non-expert pairs. These findings could be considered from two different viewpoints. First, the finding that there was little social talk and more talk about the artworks may reflect the impact of the audio-recording and the presence of the investigator. The participants may have felt pressure to produce serious conversation or at least more serious conversation than they might have otherwise. Nevertheless, participants cannot make observations and share understandings if the ideas had not occurred to them in the first place. Although the research setting may have provoked more of their connections, the ideas themselves emerged from the participants. Thus, this research captured conversations that sought to interpret artworks in a meaningful way.

Another possible interpretation about these findings is that the participants, mostly non-expert pairs, were aware of the conversational environment as a place for educational experiences. According to Adams’s study (1989) at the Henry Ford Museum and Greenfield Village, less frequent museum visitors tended to describe their museum visit as “educational,” whereas frequent museum visitors mostly described their visits as “fun.” Falk and Dierking (1992) suggested that this difference may reflect a tendency of frequent museum visitors to correlate “fun” and “educational” in the museum context, and the tendency of less frequent visitors to regard educational activities as not fun. Compared with art-familiar individuals, most non-expert individuals in this study had less museum experience. The finding that non-expert pairs showed less comfortable behavior and less social talk may reflect the tendency of non-
expert pairs to have less museum experience and believe that a museum experience needs to be educational.

**Verbal Interactions**

Research question 2 asked, What are the verbal interactions as they discuss the works of art in the paired conversations? This question concerned the ways participants interact with each other to make sense of the artworks through the paired conversation in the art museum gallery together. Two themes in the data on verbal interaction will be discussed: *crafting mutual understanding* and *helping the other’s engagement*.

**Crafting mutual understanding.** Through verbal interaction analysis in this study, one of the founded discussion theme was that pair members tried to create mutual or communal understandings about the artworks in the art museum gallery together throughout verbal interactions. I observed individuals in the study in the active role of crafting mutual understandings of the artworks through observing and talking. This aspect was found more frequently in interactions between art-familiar pairs with some art-related knowledge or art-related experience. They created a communal and more deeply engaged interpretation of the artworks through multiple transformative steps beginning with initial interpretations and responses. The initial responses of pair members to the artworks and the museum were more vague and undistinguished than their subsequent responses and understandings, which became more articulated as the conversation progressed, because of the communicative need. The statements of participants that were more knowledge-based and judgment-based created highly motivated questions in the conversation, as each pair member spontaneously puzzled through questions and answers to satisfy their unsolved curiosities and problems. For example, Debi and Dora worked together to create an adjusted conclusion for an alternative method of displaying the art, a process that began with one member’s concern and was followed by an exchange of questions and responses. In addition, some pairs who had these discussions had different perceptions during their conversations. Pair members in the study who experienced such
conflicts tried to manage them through the exchange of more resources and opinions in an effort to find some understandable conclusion for both of them.

Research in learning theory and psychology has found that working together with others in a learning situation resulted in greater productivity, as greater critical thinking, than individual learning (Gabbert et al., 1986; Johnson & Johnson, 1989; Levin et al., 1984; McKeachie, 1988). Also, previous research in cooperative learning theory asserted the presence of different opinions and perceptions as a conflict in cooperative learning situations, as well as an opportunity to manage the conflict constructively, which can increase more active cooperation (Johnson & Johnson, 1989; Johnson et al., 1991). In addition, the verbal interactions in this study can be seen as productive or complementary discussions with the aim of creating an adjusted conclusion, a process that requires critical thinking and reasoning. Pairs in this study used questioning, responding, adjusting, re-questioning, and creating alternative or mutual understandings throughout their conversation to make productive discussions.

Helping the other’s engagement. The other theme that emerged from the data analysis of the verbal interactions in this study was that the process verbally interacting helped pairs engage more with the artworks. Research in art education has emphasized that even very young children are capable of responding to art and authorizing their own opinions in discussions about art with peers (Makin et al., 1996; Thompson & Bales, 1991; Wilson & Wilson, 1981; Zander, 2003). Further, research on cognition and cooperative learning theory has maintained that peer interaction leads to cognitive restructuring through opportunities to explain, discuss, present a viewpoint, and hear other viewpoints (Johnson & Johnson, 1989; Johnson et al., 1992; Sharan, 1994; Slavin & Azmitia, 1996). Researchers in education have asserted that individuals shape a wide variety of social behaviors and attitudes in peer relationships (Johnson et al., 1991). In this study, even without specific artistic knowledge, the behaviors and attitudes of participants in verbal interactions provided modeling for each other. For example, in one instance, a pair member recognized and read the label, and the other member imitated the behavior.
When conversation is seen as a collaborative participation situation, it is clear that verbal interaction exposes individuals to diverse strategies and resources with which approach art. There was no difference between art-familiar pairs and non-expert pairs in this interactional characteristic. The pair members monitored each other’s manner and behavior, facilitating learning about museum-using strategies. When pair members listened to the other’s different ideas, it fostered reflection and examination of their own ideas. When they listened to the other’s similar opinions, it gave them confidence in their own. Getting and sharing personal epistemic resources in relation to issues from the artwork, or at least in the art museum, encouraged thinking about the art with varied connections and resources. Throughout these negotiated procedures, the pairs had a variety of constructive experiences, including building mutual understandings, viewing the artworks within diverse perspectives and fruitful resources, and gaining new strategies for understanding artworks in the art museums. For instance, Mary and Matt demonstrated different approaches or strategies to understanding the artworks. While Mary had an affective approach, reflecting her awareness of how the artworks made her feel, Matt responded based on how the artworks looked in relation to objects from everyday life-based knowledge or literature. Because of the presence of these different strategies in their conversation, they had the opportunity to share an experience that stimulated unexpected or different ways to think about art for both of them.

In a similar case, a pair member helped the other member by providing a learning strategy. Specifically, when Ned expressed a quick judgment as his conclusion about the artworks, Nora encouraged and advocated more careful observation to achieve a better understanding about the artwork they were viewing. In addition, she influenced and motivated his efforts by reading the labels aloud and providing her positive opinions about the artworks. In another case, although one not described in detail in this paper, when Kate was unable to express reasons for her overall impression about the artwork as “expression of good feeling,” Kyle assisted her by providing his observation, which led to their scaffolding a conclusion about the artworks. I also found that pair members who had more information, museum experience, or art-
related knowledge acted as experts in encouraging and supporting the other member’s meaning-making. This type of interaction occurred in both art-familiar pairs and non-expert pairs. For example, when one member in a pair had specific knowledge about the works of art in the museum (such as Iris and Irene or Holly and Hope), that member provided the information at various times as a resource for meaning-making.

Each pair member provided support and guidance for the other member in complementary roles, whether information-provider, idea-provider, responder, facilitator, or stimulator, each influencing the other’s meaning-making. Thus, the conversations were the vehicle by which adult pair members increased their involvement in a meaning-making moment.

Conclusions: The Nature of Conversations

The guiding research question of this study asked: What is the nature of the conversation that takes place between adult pairs in front of a work of art in the museum gallery? This section offers a number of conclusions from this study as a means of answering this question.

Conversation: The Continuous Processes of Reflective and Promotive Interaction

Through the analysis of the content and verbal interaction processes of the visitor pairs, I focused on how each contributed to building a conversation and scaffolding each other’s ideas in the process of making meaning about the artworks. I learned, no matter the amount of art-related knowledge, each one’s personal resources and interactions functioned as helping elements in constructing understandings about the artworks. Adult visitors found words with which to talk about their responses to the artworks as well as to other issues that arise in art, or at least issues that arise in the art museum. Exchanging individual words helped the adult visitors encounter multiple viewpoints or possible resources in a complex form of talk such as questioning, answering, feedback, and explaining. Providing and receiving epistemic resources in the conversation helped the members of pairs to jointly make sense of the artworks in the art museum gallery. Such verbal interactions could be interpreted as a type of promotive interactions in that they helped members develop understandings together in a form of cooperative interaction.
To illustrate clearly the nature of the conversations in the visitor pairs, I created a schema based on what I learned from the findings. (See Figure 5). This figure shows how participants’ conversations moved them through a complex set of reflective and promotive cognitive processes that created opportunities for extensive involvement in meaning-making.

**REFLECTIVE PROCESS**

![Diagram showing reflective processes](image)

**PROMOTIVE PROCESS**

![Diagram showing promotive processes](image)

Figure 5. The Nature of Conversations of Paired conversations between Adult Museum Visitors

At the very beginning of conversation, individuals make an observational statement about the artworks as individual understanding. Individuals described the artworks in their own ways without huge difficulties. Most initially focused on some object or were reminded of some personal experiences by the artworks, and most got some response about their opinions from the other pair member.

Next, the individual understandings or observations of each participant were put through a combination of promotive processes and reflective processes through talk with their companions. Promotive processes refer to elements in the conversation that served to encourage and facilitate each other’s efforts to make sense of the artworks, processes that were
characterized by support from the information provided by the art museum as well as help obtained from the other pair member, such as opinions, feedback, and epistemic resources. Conversations made individuals to provide effective assistance and feedback to each other, exchange needed resources, influence each other’s efforts in the meaning-making construction, and challenge for high-quality reasoning which can be the foundation for achieving cooperative learning (Johnson & Johnson, 1989).

Reflective processes were those which included elements of self-reflection, that is, conversations in which pair members sought to examine their understandings in the context of the other’s understandings. Such exchanges included those in which participants examined their own and other’s opinions utilized their personal epistemic resources when stimulated by the other’s comments. Through the continuous combined processes of speaking, listening, reflecting, and re-speaking in conversation, individuals were aware of the similarities and differences between themselves and others. Following this response, individual typically positioned his/her own opinions and the other’s opinion, and then responded again in a complex set of responses. Because conversation was the focus of the verbal interactions that occurred, individuals were encouraged to reflect upon their opinions or to talk to each other about their opinions. This process provided the foundation for effective reflection and scaffolding of ideas, as it heightened the awareness of one’s own and the other’s positioning in a discursive practice (Ballantyne & Packer, 2005; Gooding-Brown, 2000; Zander, 2003). As researchers have shown, values and attitudes may be clarified and integrated into an individual’s self-definition, with a corresponding impact on one’s identity, through such discourse (Johnson & Johnson, 1989; Johnson et al., 1991).

Through these promotive and reflective processes, adult museum visitors reflectively found their own positions and reconstructed their own understandings. In the course of these complex cooperative processes, individuals became more engaged and made greater effort to make meaning of the artworks in the museum, which may have produced extensive meaning-making.
Implications

In the last section, I discuss the implications of the findings of this research for theory and practice in the area of art museum education. The implications center on three areas: using conversations as a tool for extensive meaning-making, studying adult visitor groups’ museum experiences, and designing museum environments for self-inquiry.

Using Conversations as a Tool for Extensive Meaning-Making

The importance of social interactions in facilitating museum visitor learning has been emphasized in recent research (Ballantyne & Packer, 2005; Hood, 1993; Mayer, 2007; Paris, 1997; Silverman, 1999). Although visitors in previous studies have described the positive impacts of time with friends, family, or other people in museums as “having fun,” “being relaxed,” or “having information presented in entertaining ways” (Packer, 2004), there was little to indicate how this type of social interaction influenced individual museum learning experiences. In analyzing the conversations of adult pairs in the art museum in this study, I found evidence that conversation, as a tool for combining and sharing knowledge, leads to more extensive meaning-making. For instance, couples expressed different perspectives on the same thing; sisters jointly built up understandings through joyful imaginations. I also heard friends explain their ideas to each other, and cooperatively set goals in the meaning-making moment. Some adults in pairs provided each other with direct information about the artworks, while others guided their partners to make closer and more careful observations, eventually leading to more fruitful interpretations by the end of their talk. Some pair members shared personal feelings and everyday life experiences, which enabled their partners to experience diverse interpretations of the artworks. All of these interactions occurred between individuals in pairs in the art museum gallery, a context that is particularly likely to evoke conversations between visitors during a brief museum visit. In this study, examining the promotive interactions and influence of participants on each other provided a much rich understanding of the meaning-making that takes place in these moments of understanding art.
The museum environment provides provocative stimuli for adult museum visitors through its emphasis on works of art and their contexts. According to Mische and White (1998), conversation has rules not only based on expectations and permissible sources, but also on change in response to different settings. In this study, the museum environment supported the participants’ connections to the works of art and helped participants build up shared meanings surrounding the works of art. Thus, the findings made clear that the museum environment mediates adult museum visitors’ meaning-making in conversations.

In addition, I learned that the conversations promoted the active construction of meaning by visitors because of communicative needs. The findings of this research suggest that one pair member tends to take an active role toward the other in constructing their museum learning experience together. In conversation, participants spontaneously and socially constructed discussions that included self-referencing and reflection no matter the amount of art-related knowledge. Thus, the conversations, as a social experience, enabled participants to construct sense in the art gallery context.

The findings also suggest that researchers can study differences and similarities in conversations as constructive acts in order to investigate how the conversation of expert pairs differs from that of other types of pairs and other groups. In addition, researchers can study how the conversations of visitors, as socially constructed thought, may differ or be similar in other sorts of conversations, such as between museum educators and visitors. It is my hope that this study will contribute to a better understanding of the influence of conversation among visitors, and of the necessary conditions for inspiring more interaction between visitors, which can lead to art learning in art museums. Using this finding, researchers can study a variety of benefits and uses within museum visitor groups as they construct museum learning experiences through conversations.

**Studying All-Adult Visitor Group Museum Experiences**

One contribution of this study was its approach in looking at the museum experience of adult visitors, as a particular museum visiting group, through the analysis of their talk in front of
artworks in a museum gallery. With the strong influence of Vygotsky’s socio-cultural focus on constructive learning, and because of the informal character of museum learning, research in museum education has repeatedly pointed out the importance of studying direct social interaction in the museum experience in order to improve the museum experience for visitors (Falk & Dierking, 2000; Hein, 1998). Direct social interaction includes talking with companions in a museum, which is best thought of as a meaning-making setting (Falk & Dierking, 2000; Hein, 1998). Most of the research on social interaction in museums, however, has focused on families as a specific visitor group, even though groups of adults are another important visitor group in museums, as explored earlier in this paper (Falk & Dierking, 2000; Dierking, 1992; Kelly et al., 2004; Zimmerman et al., 2009).

Few studies examining the social interaction in all-adult groups have been conducted, though some interesting all-adult group studies have focused on the socio-cultural context of such groups (Ballantyne & Packer, 2005; Leinhardt & Knutson, 2004; Packer, 2004; Sachatello-Sawyer & Fellenz, 1999; Silverman, 1999). Further, research on the social interactions of all-adult groups in art museums is relatively rare despite the fact that all-adult groups are have become more numerous in museums (Falk & Dierking, 2000; Smithsonian, 2004). Although this research has reported that the social interaction within all-adult groups led to increased meaning-making through sharing of information and experiences and cultural meaning (Leinhardt & Knutson, 2004; Silverman, 1999; Packer, 2004), the evidence of the aspects of social interaction between the adult visitors was not straightforward.

This study looked exclusively at what all-adult museum visitor groups talked about in front of artworks and how they participated in the paired conversations within their pair units. This study may provide baseline data for further research, and may suggest strategies for facilitating paired conversations in the art museum or planning art museum education programs. My analysis of the segment frequency of types of conversation content may be useful for understanding art museum conversations between adult visitors in a broader context, by looking at the types of ideas expressed. Since this study did not compare the nature and the
characteristics of non-expert pair conversations with expert pair conversations or conversations between combined pairs (i.e., non-expert with art-familiar, non-expert with expert, or art-familiar with expert). Thus, further research that compares different types of paired conversations may provide more insights in this area. In addition, studies that consider non-verbal communication, such as gestures and observable behavior, in addition to the resources, narrative forms, and frequency of types of talk identified in this study, may be useful in providing insights on the contents of such conversations.

**Designing the Museum Environment for Self-Inquiry**

One of the findings of the study points to the need for museums to make available materials about museum use, such as a handout or a small signboard at the museum, or on a website. In this study, the participant’s empirical knowledge about the museum environment from previous museum experiences influenced the patterns and the degree of museum resource use in supporting the conversation. As in the Will and Wes and Ned and Nora pairs, both pair members had similar degrees of art-related knowledge, but one member had more museum experience or empirical knowledge about museum resources. Whether or not participants used museum materials (labels), or a museum facility (a couch) influenced the quality and amount of resources brought to the conversation, and the extent to which the conversation was fruitful and comfortable. As mentioned earlier, visitors who are not experts in art and art museums may be tense in art museums because they doubt their understanding of proper museum behavior. Providing materials about using the museum and other resources related to the art may help all-adult pairs bring more resources to the conversation in more relaxed mood and to reduce uncertainty.

In addition, if museum educators aim to provoke and inspire conversation in the museum environment, they need to know what would be useful and meaningful information for visitors (Leinhardt & Knutson, 2004; Mayer, 2007). Throughout the conversations in this study, pairs struggled to develop proper questions and connections for understanding art. For example, when Nora expressed interest in the concept of the artwork, she made a statement about the possible
theme in relation to the title. However, her guess did not extend to a more detailed analysis and interpretation in the course of the interaction, and she changed the topic after a moment. If she knew how to address her first assumption and guess in relation to the visual elements of the artworks, she and Ned might then have inquired about the artwork’s meaning or concept more through their observation of the artwork itself, even without art-related information at the moment.

Researchers have emphasized the importance of posing questions for museum visitors as the foundation of inquiry that stimulates reading, looking, and dialogue in the exhibition (Keller et al., 2004; Villeneuve & Love, 2007). Questions like “If you recall objects, phenomenon, or memory from the artworks, how does the visual look of the artwork relate to your recall?” could inspire and support talk and inquiry among museum visitors. Using questions may facilitate learning strategies by museum visitors that address their initial interests and questions and move them toward the next steps for greater understanding of the art they are viewing. As mentioned earlier, museum educators could use object labels, handouts, or the websites to pose these kinds of questions for a deep and fruitful constructing of museum experience by visitors.

It is my hope that art museum educators will continue to recognize the important role we play in our adult museum visitors’ understandings of art, and that we continue to seek ways to create more opportunities to interact with one of our largest audiences.

**Chapter Summary**

This study makes a contribution to the research that examines adult museum visitors’ experiences in art museums, specifically by describing the experience of visitor pairs in conversation. This study investigated the extent to which adult visitors can construct their own museum experience, and the ways in which the interaction between the visitors influences and facilitates each individual’s museum experience. As baseline data for further research, this study provides the groundwork for more phenomenological research investigating adult museum visitors’ museum experiences and the social interactions.
APPENDIX A

VISUAL IMAGE, A WORK OF ART

Trevor Bell, *Light Pillar*, 1982, acrylic on canvas, 186 x 86 inches, Collection: Florida State University Museum of Fine Arts, Gift of American Express Corporation. [Photo credit: Jon Nalon]
APPENDIX B

VISUAL IMAGE, A WORK OF ART

I am asking you to take part in a research study because I am trying to learn more about the nature of the conversation that takes place between pairs of adults in front of a work of art in the art museum. You will be asked to engage in the paired conversation about an artwork at the Florida State University Museum of Fine Arts, Tallahassee. Before starting your paired conversation, you will get a short questionnaire about your background. Next, I will give you a small size hand-held audio recorder to record your conversation. If you do not wish to be audio-taped, you will not be the subjects of this research. While you have your conversation, I will observe you with no interruption.

During your conversation, please hold the recorder and speak into it. In order to maximize the privacy of your responses, I will use pseudonyms (fake names) to collect, record, and report your conversation. Please begin by saying the pseudonym I assign you into the recorder. You do not need to use the pseudonym in the rest of your conversation; if you happen to call each other by your actual names, I will eliminate them from the transcripts. Try to have a conversation about the assigned work of art, talking for as long as you like. I will be waiting behind you. Turn off the recorder and return it to me when you are finished.

Your participation is voluntary, and you can stop the participation at any time without any penalty to you. You will not be paid for participating in this research study. Your decision whether or not to participate will not affect your current or future relations with the Florida State University of Museum of Fine Arts. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships. Your privacy will be kept confidential to the extent allowed by law. Results will be separated from your personal information, so there is minimal risk for your responses to be connected to your name and contact information.
## APPENDIX D

### PSEUDONYM LIST

<table>
<thead>
<tr>
<th>Pair Order</th>
<th>Female</th>
<th>Male</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Abby, Anne</td>
<td>Andy, Alec</td>
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<td>2</td>
<td>Beth, Barb</td>
<td>Brad, Brent</td>
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<td>3</td>
<td>Cara, Cass</td>
<td>Chad, Carl</td>
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<td>4</td>
<td>Dora, Debi</td>
<td>Dave, Dean</td>
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<td>5</td>
<td>Emma, Erin</td>
<td>Eric, Evan</td>
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<td>Faye, Faith</td>
<td>Fred, Frank</td>
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<td>7</td>
<td>Gwen, Gina</td>
<td>Greg, Gary</td>
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<td>Hank, Hal</td>
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# APPENDIX E

## SUMMARY OF PROFILE OF PARTICIPANTS

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APPENDIX F

QUESTIONNAIRE

1. Indicate your age. ( )

2. What is your relationship with the person you came to the museum with?
   ① Family
   ② Friend
   ③ Couple
   ④ Other (please indicate: )

3. Is this your first visit of this museum?
   ① Yes  ② No

4. How often do you visit art museums each year?
   ① Never  ② 1-2 times  ③ 3-5 times  ④ 6 or more

5. How many college-level art classes, such as studio art, art history, or art education classes, have you taken?
   ① Never  ② 1-2 classes  ③ 3-5 classes  ④ 6 or more
APPENDIX G

TRANSCRIPTS OF THE PAIRED CONVERSATION

ABBREY AND ALEC

Abby: Ok, we are looking at…

Alec: *(Reading the label)* Light Pillar …by Trevor Bell. And I really like this because I like the way the blue is intense…the two sides, the other side of the light pillar I suppose. And then it fades to the outside. I like that.

Abby: Yeah. I like all the combinations of colors.

Alec: Well I wonder if it was on ground level, would it, I guess you’d still look up. But being up like that…dwarfs it a little bit.

Abby: You would miss the bottom part.

Alec: Yeah. Yeah, you would. Wouldn’t be able to see the top part either.

Abby: But a light pillar is coming from where?

Alec: I don’t know. *[pause]* From within the earth?

*laugh for 2 seconds*

Abby: Could be. Maybe that is what the oil spill [in the Gulf] looks like right now.

Alec: Abby, what’s your opinion of the oil spill? Let’s not talk about that. That is terrible.

Abby: Ok.

*(Moving to the Rising Heat)*

Alec: *(Reading the label)* That’s the Rising Heat. That’s exactly what it looks like, if you think about it.

Abby: Yeah, it does, because it is intense in the middle.

Alec: Orange to the outside, like orange flame.

Abby: And the blue would be the hottest part. That’s the hottest part.

Alec: Yeah. That is kind of intimidating in a way.
Abby: I wonder how they were painted. If they were on the ground?

Alec: Could have painted them sideways? Could have had them horizontal? I think it’s on a scaffold. Had to be on a scaffold to do that, I would think, because a ladder would be awkward. He’d be leaning over a ladder or he’d be painting off to the side like that.

Abby: How tall do you think they are?

\[silence of 5 seconds\]

Alec: I would say…

Abby: 20 feet?

Alec: Maybe 24 feet? Something like that. Maybe 24 feet?

Abby: I don’t know.

Alec: They are pretty big.

\[silence of 4 seconds\]

Abby: Anyway, they were the first thing that caught my eye when we walked in.

Alec: Yeah, they were. And this is Alec who said that.

Abby: Ok. (laugh)

Alec: Ok, (laugh) I think we’re done.
BARB AND BETH

Barb: Alright, we’re looking at these two paintings; one yellow, one blue. [pause] You mentioned earlier Beth that there’s not much to them and I agree with that.

Beth: I like the blue one. It has more colors to it.

Barb: It looks more like a prism then the other one does. The other one looks kind of like fire.

Beth: Yeah.

Barb: But they’re well done. There’s lots of…

Beth: Well the one with the fire, I wouldn’t say it’s a fire, I thought it looked like a water stain. I don’t know?

Barb: I guess so.

Beth: You guess so? But I really like this one.

Barb: I really like color.

Beth: I like the color between those. And, on the wall they are [pause] very beautiful to look at.

But there’s not a whole lot there. I think I would eventually stop….I wouldn’t look at it every day if I were to buy it.

Barb: I like a lot of noise personally. This one looks like a pathway, though. Like in Lord of the Rings how they walk through the mountain.

Beth: Yeah.

Barb: And it kind of looks like the sun sets behind it and the top of the trees. The one on the right looks like [pause] it has more to it. You can imagine it, if you are very imaginative. You could see more in that one you couldn’t otherwise.

Beth: That one kind of looks like someone’s tongue. (laugh) I don’t know [pause] because it’s big and pink.

Barb: Well, I can see it, but I didn’t get any images from it.

Beth: No, not at all.

Barb: The colors are dry. I personally like cooler colors better.

Beth: Yeah, exactly.
Barb: I don’t like the yellow. It’s a preference. Someone else might like it.

Beth: Yeah, yeah. It does look like water stain on a paper though; whereas the other one looks more like paint.

Barb: Yeah, I agree with that.

Beth: They put a lot of work into both of them.

Barb: I want to know what they painted these with…must have been acrylic. I am going to guess acrylic, maybe.

[silence of 3 seconds]

Beth: I definitely like the one on the right better.

Barb: Yeah.

Beth: That’s all I can say. Yeah.

Barb: Happiness.

Beth: There you go.
CARA AND CASS

Cass: What do you think about it?
Cara: A trapezoid?
Cass: Yeah. I think [pause] I don’t know. The left one looks like a dog and the right one is a human’s legs.
Cara: Oh, right.

[silence of 3 seconds]
Cass: The left one looks little scary, and I like the one on the right better.
Cara: I think both of them are just okay. [pause] Do you think these two are by a same person?
Cass: I guess so.
Cara: Can we go down?

(Walking down for 7 seconds)
Cass: Wow, it looks better from here. I thought these were just prints or something, but it is a painting, right? Great. [pause] So, the artist has a big house to hang this big size work, right?
Cara: Well, I guess so.
Cass: What are the titles? (Reading Label) Rising Heat, and (moving to another piece) Light Pillar. I can see rising heat from the one on the left. Yeah. Yellow and red [pause] But, I don’t think I would buy these.
Cara: Me, too.
Cass: But, the shapes are amazing, right?
Cara: Yeah.
DEBI AND DORA

Debi: I am pretty familiar with these particular paintings. And, I really like them a lot.

Dora: This is my first time seeing these paintings. I really like the more trapezoidal [pause] rather than rectangular. It kind of gives it a sort of waterfall-ishness.

Debi: Yeah.

Dora: Especially with the one on the right with the blue and colors in the center. (pause) It kind of reminds me of the colors lights directly behind Niagara Falls.

Debi: Oh ok. Yeah, I can see that. I actually like that one better as well. And, I think it’s because there is something more structured about it. I like that it is kind of free-forming in terms of color. Actually it is not, it’s very prism spectrum. And I am always attracted to prism spectrum. So I am wrong. I actually like the fact that it is orderly. The other one looks a lot like a water spot.

Dora: Yeah.


Dora: Well she had more...

Debi: No…but I kind of want to see a flower in it. That’s what I am thinking.

Dora: Like the barren area?

Debi: Exactly, exactly. [pause] One thing I don’t like, and I think it’s always driven me a bit nuts, you know maybe because of OCD, is that because it’s a circular space it can’t hang on the wall completely flat. And I’ve always wondered if [pause] there was a better way to display that. I don’t think there is. I haven’t been able to puzzle it out. But that little gap just drives me a tad bit and I just want to fix it and I can’t.

Dora: Yeah, I’m not sure about that, but I do like the rounded area…it kind of makes them face each other.

Debi: Yeah.

Dora: Definitely pairs them, rather than just sitting side by side on the flat wall.
Debi: Right and it’s almost more of a conversation. I think that [pause] in a black draped area, so say there were a black curtain draped behind them it would soften the line of the brick. That would really bring them out and I think it would make them much more dynamic. I don’t know what the logistics of that would be. But it would definitely make them more dynamic than they currently are.

Dora: Maybe not the black. I think the blue would fade a little too much.

Debi: Oh.

Dora: And then the orange would be way too poppy. Right now they look more even – more conversational. One would dominate the other with black.

Debi: What about white? Would the orange fade with white?

Dora: Yeah, I think probably like a grey scale.

Debi: Ok that’s fair. (laugh) Ok so I don’t know exactly what the goal is…but we are redecorating…

Dora: I like the drapery the color of the brick because that displays them pretty evenly. Because there’s not that color right behind.

Debi: That’s true. It’s very neutral.

Dora: Just the brick lay out.

Debi: Yeah, and I guess that’s what I am thinking, too. That it really has that…brick is such a strong and intrinsic pattern. [pause] To me it distracts.

Dora: Yeah, the pattern.

Debi: Right, and these are very much about color. [pause] They are not about pattern.

Dora: Right.

Debi: So that’s what I was saying. But on the whole, I really like them. But I… anything that involves bright colors. It’s always been the artists who I liked most in art history. Botticelli is very much color over precision like the other Renaissance artists were doing. So give me color and I am happy.
Dora: I really like high contrast which is probably why I like the one with blue and yellow. Because I was a big Caravaggio fan.

Debi: I can see that. I do like Caravaggio as well. Even if he is not high color, he is high contrast. It’s funny, [pause] not on topic, but when I was in Rome we were going around and looking at art in the Borghese Gallery and the docent asked us who liked Caravaggio and who didn’t. And it never occurred to me someone wouldn’t like Caravaggio.

Dora: Well who wouldn’t like Caravaggio?

Debi: And it was funny because one of the masters, the fine art masters, from here was like ‘I don’t like it.’ Sacrilege. It is very high contrast. It may be unpleasant for people.

Dora: It could probably be pretty dissident for people who weren’t into it.

Debi: Where these are mellow enough that even people who aren’t familiar with art history will like them and they won’t say my five year old could do that. [pause] Because really your five year old probably couldn’t. There is something to be said for art that challenges me. I am art. Roar. (laugh)

Dora: That is mean to that five year old.

Debi: I am just saying that your five year old, unless they have a slip and slide, can’t make that.

And if your five year old is smart enough to make a slip and slide art board then your five year old deserves to be in a museum.

Dora: We really need to find your five year old cousin and give him a slip and slide. (laugh)

Debi: Awesome. (laugh) This is the next family project.
EMMA AND EVAN

Emma: So what do you think about it?
Evan: This painting? Bright blue
Emma: It’s very blue.
Evan: That one’s blue. I am looking at that one (pointing the Light Pillar) first.

[silence of 3 seconds]
Emma: The colors…
Evan: A little bit like a rocket. Like the V in the middle, the thing looks…reminds me a little of the space shuttle launch…like the flames that come out
Emma: Really?
Evan: Little bit. And…
Emma: Now I think it looks like…like you know when you play music with a media player?
Evan: On your computer?
Emma: Your computer
Evan: Oh so it’s a little pathway?
Emma: Yeah. Like that.

(laugh for 2 seconds)
Emma: Do you think so? I think it looks like it.
Evan: A little bit? They are all happy, though. You know?
Emma: The colors?
Evan: The mood.

[silence of 4 seconds]
Evan: So ahhh. Let’s see, what else?
Emma: How did the artist do that?
Evan: I don’t know.

(Look closely)
Emma: Is it like [pause] oil? Doesn’t really look like…
Evan: Watercolor. Maybe? There’s a lot of watercolor.
Emma: There’s a lot of watercolor. A lot of water.
Evan: I don’t know. It’s huge. An airbrush?
Emma: No [pause] I think [pause] a mop?
Evan: A mop, yeah, or something.
Emma: It’s interesting, like, [pause] to see all the colors. They meet together in some places.
Evan: What do you think about the other one?
Emma: I think there is a face staring at us.
Evan: Yeah, that does look like a face. It looks like a werewolf actually.
Emma: Yeah (laugh) I was going to say that! It’s a really big werewolf.
Evan: It’s a fierce werewolf.
Emma: Yeah the wide part of his mouth.
Evan: It’s got a big kind of clown nose. Wow. It’s actually a little bit scary. (laugh)
Emma: Yeah. But they are in really warm, happy, joyful colors. So…
Evan: You know I just noticed the shape of each canvas is kind of interesting, too. They are not like rectangular. They are like rhombus or something.
Emma: I didn’t really like those two paintings when I arrived here.
Evan: They are kind of not subtle.
Emma: But [pause] I don’t know.
[silence of 3 seconds]
(laugh for 2 seconds)
Emma: Let’s talk about the artwork more.
Evan: Let’s see. What else?
Emma: I think the colors are really bright, [pause] and really young colors. Reminds me of Jell-O.
Evan: Oh yeah. Cool. I was trying to figure it out because like at the bottom it’s brighter than the top. So it almost seems like…
Emma: I don’t think so. See? (pointing the bottom part of the Light Pillar) That purple part is really darker.

Evan: But I mean like that middle thing, the middle column. It almost looks like they put the paint on the bottom and it went upwards. You know? That’s what I am thinking.

Emma: Oh- yeah.

Evan: Yeah. [pause] What would you name that one?

[silence of 4 seconds]

Emma: Colorful in the rain?

Evan: Wow.

[silence of 2 seconds]

Evan: You think when the artists were making these you think they knew what they wanted the final thing to look like? Or [pause] you think they just started painting it? And just painted something?

Emma: I think they had a rough idea and they just started doing it…and the creativity leads that.

Evan: Interesting.

Emma: Somehow that painting reminds me of Avatar.

Evan: Oh the one on the right? Yeah.

Emma: Umm…

Evan: OK, I think that’s our observations.
Faith: These two giant paintings, artworks on the wall. They are against the brick wall. The color schemes are like a light orange and light blue. I think they are at the scale for a large quantity of people to look at, maybe from a far away distance, too. Maybe that is how the artist wanted them to be seen.

Faye: It’s also interesting, the contrast between the two different pieces. The one on the left gives you a warmer feeling with the warm colors. The one on the right, with cooler colors, but with a streak of warmth through the center. And I also think it’s interesting how these two flat paintings are on this curved brick wall. It really sets the contrast. It grabs your attention as you are approaching or descending the stairs.

Faith: The painting on the right looks like it has linear… Like transitioning into cooler colors, into blues and purples. And the painting on the left seems to kind of blend in the background because it is like a pinkish color going into orange.

Faye: Yes, just as Faith just stated, the painting on the left does appear that it is spreading out into the canvas whereas the one on the right is like it’s coming into the canvas.

Faith: And the orange and blue seem to complement each other, being complimentary colors.
GINA AND GWEN

Gwynn: So, can we go down?

(walking down for 8 seconds)

Gwynn: So I really like these paintings by (reading label) Trevor Bell. There is one that is blue, predominately blue. And it works its way into yellow, right to the center.

Gina: I am defensive in the area of height. I think it is really increased by the fact that it is a trapezoid and not a rectangle so you get kind of a forced perspective.

Gwynn – Yeah.

Gina: And the yellow seems to come at you. Or, the blue and the purple recede. So it almost makes the piece looked curved against the concaved brick wall.

Gwynn: I like it. I think I remember that he did it inspired by the shuttle launch or something. He was inspired by [pause] the steam and fire that was coming out of the shuttle as it was going up.

Gina: It’s so interesting knowing that, because once you know that you can actually see

Gwynn: Yeah. Like yellow.

Gina: Like a thermal photograph, you would see the different colors and the heat and the cool areas. It does look very much like a thermal photograph, really.

Gwynn: At first glance, the first time I saw these, they reminded me of that science, that chemistry test that test PHs.

Gina: Yeah.

[silence of 3 seconds]

Gwynn: To test how far it goes. That’s what it reminds me of.

Gina: I think it’s served very well by being against the curved brick wall.

Gwynn: Yeah, well I think it’s because of the position of the canvas that it works well.

Gina: Did he know…did he or she know the space the piece is going in to when he designed the work? Or did it just work out that way.

Gwynn: I am not sure.
Gina: Because it looks almost designed for the space. It fits perfectly. (*chuckle*)

Gwynn: Yeah.

Gina: Is it on canvas?

Gwynn: I think maybe. Yeah. I think this one is... (*moving back and forth between two works*)

More subtle depending on how you see it.

Gina: It’s all warm colors. You get a variation of the pink and the yellow and the orange.

Gwynn: It is like a big contrast.

[*silence of 5 seconds*]

Gina: It’s interesting, the contrast of warm colors progressing towards you and cool colors receding. You can really see that in the two pieces. This one does actually seem physically closer to us.

Gwynn: There’s less variation of color in this one I feel. And, [*pause*] less of a contrast, there’s blue and then purple and then green and then yellow and then a little bit of magenta pink in the bottom. And it seems to me there’s just orange and pink and a little bit of green in the bottom. Which I think is [*pause*] interesting.

Gina: It does create a feeling of asymmetry in the space. You get this kind of weighted feeling more towards the bottom of the piece with the cool colors there, one splash of a different color.

[*silence of 4 seconds*]

Gwynn: To me it looks like a watermark type of thing. The bottom part?

Gina: It is so strange to me, because it looks like a giant Shroud of Turin. (*laugh*) It looks like a face print.

Gwynn: Yeah, to me that one looks more deliberate the way the paint has seeped in or spread in the canvas, you know? That one is more random.

Gina: It’s sort of Rorschach. You can see anything you want to into it.

Gwynn: I am seeing the face of a clown.
Gina: Yeah, I am, too. Yeah, the fuchsia round ball of a nose. [pause] I would have loved to actually have seen the artist creating the piece. That would be interesting to know how the technique was used.

Gwynn: Yeah.

Gina: Was it splattered or poured? Exactly how did that occur?

[silence of 9 seconds]

Gwynn: When was the painted? 1982.

[silence of 5 seconds]

Gina: So that was 1982 when we were still using the vivid bright colors, like poster art.

Gwynn: Yeah, technicolored ink.

Gina: Actually, it is a remnant of its time. You can date it by the color pallet.

Gwynn: When you know the date you say of yeah, almost neon yellow and blue.

Gina: It’s very much like a spectrum or prism, with the light into the physical spectrum.

Gwynn: There’s like an order to it.

Gina: Yeah, exactly. It’s very ordered and rhythmic. This one is much more abstract.

[silence of 6 seconds]

Gwynn: Is there anything else we’re suppose to talk about? What do you think?

Gina: Are we supposed to have an opinion? (laugh)

Gwynn: Oh, ok. I like them.

Gina: I do, too. I think they fit really well into the space.

Gwynn: They complement each other.

Gina: The colors are pleasing. Yeah, I guess I like them.

Gwynn: There’s no actually figures in them which gives the viewer a little more liberty to what they want to get out of it. [pause] That’s it for me.

Gina: That’s it for me, too.
HOLLY AND HOPE

Hope: These are rather large works of art.
Holly: Yes they are. I think they are tapered or does it just look like it?
Hope: I don’t know.
Holly: I think they are tapered.
Hope: I think they are, too.
Holly: I think it works pretty well for this space, too. Except [pause] it was probably really
difficult to hang them because they are flat and the wall is round.
Hope: True.
Holly: But…
Hope: I like how with this one you can see a good balance of the two colors.
Holly: Yeah.
[silence of 3 seconds]
Hope: The dark moves up and the yellow was down. That’s true.
Holly: And then it like blends at the bottom. At the top there is no blending at all. I like that one
better than the orange one.
Hope: This one is kind of like a void, where this one has more shape I think.
Holly: Yeah…some kind of direction.
Hope: But I think they work well together because that is warm color, this is cool color.
Holly: That’s true. [pause] I think it’s pretty balanced because there’s one little spot of red or
orange in the blue one…and over in the orange one there’s that little spot of teal at the
bottom, or sea foam green.
[silence of 6 seconds]
Hope: Yeah. Let’s see what the titles are.
Holly: I like reading the titles. (reading label) Rising Heat. What’s this one?
(moving to the other label)
Hope: (reading label) Light Pillar.
Holly: Oh. I can see that.
Hope: Yeah definitely.
Holly: It’s [pause] pretty much spelled out, since there’s like a giant pillar of yellow up the center of it.
Hope: Pillar of yellow. And that one has a direction. Or does it go back and forth?
Holly: That’s true, definitely down.
[silence of 3 seconds]
Hope: Rising heat.
Holly: It kind of looks like [pause] a thermal image.
Hope: Yes, with the blue. I just like the one here, pretty. Honestly.
Holly: Yeah, like the combination of colors. And because it’s more balanced, I guess…unless you really like orange. I don’t really like orange. (laugh) I think orange is one of those colors most people hate.
Hope: Yeah, I don’t really like orange and pink together.
Holly: No, it’s kind of annoying.
Hope: It clashes.
Holly: Yeah.
Hope: And obviously the ones in blue are like opposite. [pause] So that is also not very soothing.
Holly: Yeah. That’s true, they pretty much clash.
[silence of 3 seconds]
Hope: But all of the colors kind of convey all together. Are they donated?
Holly: (Reading label again) Yeah. A gift of American Express. That’s random.
Hope: 82
[silence of 2 seconds]
Holly: Is that 82? Yeah, it’s kind of like Morris Lewis except Technicolor.
Hope: Yeah.
[silence of 5 seconds]
Holly: I don’t know why I said that because it’s really not like Morris Lewis at all except that it’s just down.

Hope: Up and down…

Holly: It doesn’t even look like drips, though. You know what I mean? It’s definitely deliberately painted on.

Hope: That one…

[silence of 6 seconds]

Holly: That one I feel like kind of looks like a drip. [pause] That one not as much. It kind of hurts my neck.

[silence of 8 seconds]

Holly: I don’t know what else to say about it.

Hope: It’s like Georgia O’Keefe, too. The more I look at it. [pause] Because it has that shape.

Holly: Oh really, you mean a penis and a vagina.

Hope: Yeah, I guess that’s what I mean.

Holly: Yeah, that’s interesting. It kind of reminds me of Helen Frankenthaler except that it…is it acrylic? (reading label again) It is acrylic. It’s like the legacy of abstract color field painting except it’s definitely not drip [pause] and it’s not stained; it’s just acrylic on top of the canvas.
IRENE AND IRIS

Iris: Obviously they are non objective.
Irene: Yeah.
Iris: There’s nothing you can discern.

[silence of 3 seconds]

Irene: Abstract paintings, very colorful ones. [pause] We can talk about the placement, actually being here sitting down. We can compare them. They actually have [pause] you can see the emotion of them being in color from here, [pause] from where we’re sitting.
Iris: Well what I think it interesting is that, well, we are sitting down low and we are experiencing a one point perspective feeling. But, if you actually look at the paintings from a distance where you are not actually below, will notice that they are wider at the bottom and narrower at the top. But because we are sitting down here so low you get that heightened sense of the one point perspective.
Irene: Here you can see they are a little wider at the bottom, even being here. Each of them will give you a one point perspective, like looking at both you get a two point thing. Two points that don’t meet at the top.
Iris: Right. The way they are spread out it does give you that linear two point perspective, too. I think that the artist was trying to give you the feeling of upward motion and flight. [pause] I actually happened to read a little more about this one on the right. And, he was affected greatly by his visit to NASA to see the space shuttle launching.
Irene: I can see the fire; the notion of what the shuttle left behind, or something. Right? And, the colors, too.
Iris: Yeah, there really is a lot of thrust on this one on the right hand side. Which is, hold on, (standing up from a bench, and going to read label) I’m going to go and…it’s called Light Pillar on the right. And, (moving to the other label) the other one is called Rising Heat. So this one, with Light Pillar on the right, pretty much has all the colors of the rainbow. And,
that makes sense because the light pillar. You know that light is every color when it is scientifically broken down, refracted.

Irene: Yeah, of this one on the right, [pause] this one has a lot of contrast. Pretty much every color in there, [pause] with the warm colors mainly in the center of it. And, framed by two big sections of cool colors on the sides. Compared to this one, this is all warm. Heat, with some cool colors showing.

Iris: Yeah, it’s interesting I haven’t…this one on the left, I can look at and really just respond to it, but I really didn’t study this one on the left, Rising Heat. It’s interesting; it’s very soft and gently. And, I don’t see as much energy in it.

Irene: Right, it’s a lot softer because of the tones being used.

Iris: Because it’s more monochromatic.

Irene: It’s more monochromatic then this one, which is very contrasting with more like complimentary color combination.

Iris: Well, there’s almost like an object with a background in this one. But this one is almost one piece, the whole work. So it’s interesting.

Irene: It’s interesting how both of them have the same composition, because there is a background on the sides.

Iris: Yes.

Irene: There is something in the center all the way from top to bottom. [pause] Which you can look at it coming from top to bottom, [pause] or coming from bottom to top. Now that you told me about the one on the right, I can see it. But at first I thought…

[silence of 4 seconds]

Iris: You are right, though, because it could look like dripping down because…I mean, I am getting back to the subject matter again that I have read into it. You could actually see a force or a drip coming down on the right. But, the colors in this one are so fantastic. In Light Pillar, just the way he blends his colors and brings in all the dimensions of it. [pause] I just love his work. Just generally, I love his work.
Irene: I remember this one (pointing the Light Pillar), it’s the Light Pillar right?

Iris: Yes.

Irene: The Light Pillar looks like, now that you mention it, something from the shuttle that left already. Well, this one (pointing the Rising Heat) looks more like an object or something that is still there in the center.

Iris: It’s called Rising Heat. And Rising Heat, you can almost see the…it’s interesting how the title of the work can really make you think about it, too. And, that’s probably why a lot of times artists don’t title their work. They leave it untitled because they want you to look at the work and not think about they were trying to say. But anyway, the center there, in Rising Heat, the pinkish, salomy color does look like the focus. Because it is actually crisper and clearer, and everything else is more diffused.

Irene: Uhmm..

Iris: It’s interesting, there’s the little bit of muted soft green, too. Just a little bit of green in it.

Irene: You look up higher, you also see other colors. They show up, right? It’s like light. Looking at it in places, it’s almost transparent. You think…

Iris: And up at the top, we know the title, so up at the top there’s the smoky, softer hues and there’s more heat down towards the bottom with the brighter yellows.

[silence of 3 seconds]

Irene: Yeah, this one is more defined as a [pause] more like a heavy bottom then this one. This one you can take it coming from the top or coming from the bottom but you really have a choice to create what you’re thinking what’s happening. And this one has a more [pause] heavy bottom where the heat is coming from…the smoke?

Iris: The source or something. You know what just happened to me, though? We were looking at this one which is predominantly orange and warm tones. And, my eyes shifted over here towards the right. And, immediately popped out were the contrary colors. You’ve got orange and blues, which are opposite each other on the color wheel, and [pause] because of that it had so much energy and so much brilliance that the teal green on either side of the bright
yellow just popped out at me. So he has a lot of complementary color scheme going on, actually. That’s pretty interesting.

Irene: You talk about that, you know, if you look at the one on the left, and you kind of move to the one on the right, the Pillar, you can almost see a continuation of the color. [pause] If you placed the one on the right on top…you can almost put them one on top of the other one. [pause] Narrow at the top, and you place the one on the right on top you would have a transition as it gets thinner.

Iris: What I see is the muted tones would go into the muted tones on the bottom. You know what I think is fun? In the exhibition that’s upstairs right now there are a few more of Trevor Bell’s pieces that would be fun to go look at together after this, you know, to see how his style has changed.

Irene: That’s good.

Iris: Yeah, it’s a really beautiful piece. I wish…

Irene: It was refreshing to the eyes.

Iris: Yeah, I wished I had known he was here. You know he was a painter here, back in the 80s.

Irene: Yeah, I heard.

Iris: So I wish I had taken a class with him back then.

[silence of 6 seconds]

Irene: Great

Iris: Yeah. So do you have one that’s a favorite?

Irene: I really like the one on the right, the Pillar. I just love the contrast of color. While different on the left, I like the softer color, almost like blurring.

Iris: For me personally, I respond more strongly to color. I love bright, high chrome colors. And, I like muted, muted is good. But when I look at the one on the right I can see he’s put so many variations of hues and he’s really built color upon color. I really want to look at this one more.

Every time I look at it, I see more and more [pause] you know, all the different gradations. Whereas this one doesn’t excite me half as much.
Irene: Yeah, that is what is happening to me. You look at the transition from one color to the next and you keep discovering new hues throughout the whole composition. It really attracts my attention.

Iris: Yeah, they both remind me artist do with pastels. How they can blend colors and build upon each other and get those depths. But this one seems to have that happening more. [pause] But which one could you live with longer? I could still live with the one I like more, better.

Irene: I like the Pillar. It’s more [pause] exciting. It really makes me want to stay here and look at it longer.

Iris: Yeah. Well, I wonder if we should go look at the other ones in the other room.
JENN AND JILL

Jill: Well, what do you think about it?
Jenn: Umm. I don’t know.
Jill: Can we go down? I think we can.

(Going down)

Jill: I think it kind of looks like thermal photography.
Jenn: A thermal image? Oh, I can see that.
Jill: The red and orange are the hot areas, and the green and blue are the cool parts, right?
Jenn: Yeah. I think that’s it. That’s interesting.
Jill: That’s all I can say.
Jenn: Yeah, I agree with you.
KATE AND KYLE

Kyle: So what do you think about this?

Kate: And the first thing I noticed when we walked and I saw how bold and large and colorful it was. It attracted my eye right away. And it did make me want to go right towards it.

Kyle: Yes. I feel the same way. It appears very watery to me. It feels like something with water falling. The one on the left is more sky like. [pause] It has more form to it at the bottom. It reminds me of something I can’t tell what. [pause] It’s almost bottle shaped. But yes the colors are very bright. [pause] I see sky and I see sea.

Kate: That’s good. It made me think of something right away.

Kyle: Oh of course!

Kate: I think with me of more of a feeling. It’s a good feeling. [slight laugh] It is very life affirming. I guess it’s because…

Kyle: (right after Kate’s hesitation) It flows.

Kate: Yes. It’s so bold and happy to me. I don’t really have a real concept of something specific when I look at it. It’s more of a feeling that I get from it -a good energy feeling.
LORI AND LISA

Lisa: So which one do you like better?
Lori: I like the blue one better.
Lisa: Why?
Lori: I like… They both feel like flames to me… there’s some kind of flames. But I like the blue one more because of the streak down the middle.
Lisa: They’re pretty heavy.
Lori: Which one do you like better?
Lisa: Personally, [pause] I like the blue one just because the weight of it. It seems more balanced with the heavier bottom. And… [pause] the lighter ones on top. I like this one (pointing the Light Pillar). And, I like the orange one, but it’s a different feeling. I mean, they both have a lot of weight towards the bottom, but this one is more evenly distributed throughout and I like the colors more.
Lori: Yeah, I also like the blue one more because there are a lot more colors.
Lisa: They are both very vibrant.
Lori: Yeah, agreed.
Lisa: I don’t know which one to look at first. But I feel like I am spending more time with this one (pointing the Light Pillar) because there are more layers…
Lori- Ok.
Lisa- Ok.
(staring each other’s faces, then decided to move next)
MARY AND MATT

Mary: There’s a couch right there if you’d like to view from there.

(Going down, and then sitting on the couch)

Mary: They’re pretty big.

Matt: (Looking the Light Pillar) Looks like a rainbow with a medieval torture device in the middle of it.

Mary: Yeah, really.

Matt: Kind of weird actually. And… (pointing the Rising Heat) that on the left is what happens if you look at the sun too long.

Mary: Yeah, I can see how you’d see the sun in them. And this one, (pointing the Light Pillar) it’s almost like the sun is coming out of something. You know, like between something.

Matt: Like the back of a jet at an air show.

(laugh)

Mary: When I look at them I don’t so much think about what they are meant to be, but how beautiful the colors are and how warm they make me feel. You know, [pause] The colors sort of resonate for me emotionally for me and make me feel happy. (chuckle)

Matt: Looks like a rainbow to me.

Mary: Well, rainbows are happy, too.

Matt: Uh? (chuckle) yeah, Most of the time.

Mary: Yeah, I grew up with Rainbow Bright. It goes back to my childhood. All the colors you are around are very bright, vivid colors.

Matt: Yeah, (chuckle)

Mary: And, the colors are so bright there is no room for any unhappiness.

Matt: I don’t know about that.

Mary: Really? Do you think there is some unhappiness in either of these paintings?

Matt: Well different people associate different colors with different things.

Mary: Well, what do you associate these with?
Matt: No, I would say the same thing. But I wouldn’t say it’s universal.

Mary: Really?

Matt: Um-hmm. (as a negative expression)

Mary: Do you think someone would look at these and…I can’t imagine that and feeling anger and hate.

Matt: Something silly like that.

Mary: That’s ridiculous. because..

(chuckle by Matt)

Mary: I mean, I am not particularly fond of yellow. I like all colors, but I remember at one point I painted a room yellow because I thought it might be energizing (at this point, Matt said “Uuhhh-“with shoulder flinch) and it made me go crazy. But you know these aren’t all yellow…these are tempered with other colors. These are multiple colors working on each other to create a mood.

[silence of 8 seconds]

Matt: Yeah.

[silence of seconds]

Mary: Yeah, I feel like they have a lot more presence when you walk in and see them from the top level. From down here it’s hard to look at them.

Matt: Umm.

[Sigh and silence around 5 seconds] then finish the conversation.
NORA AND NED

Nora: Ok. What do you think of these? I like the shape of the canvas.

Ned: I don’t think this is art. Because this looks way too easy, a child could do it. You could just throw some paint on a canvas.

Nora: Don’t confound her results, Ned. Who did this? A student? Can we walk down? Look at the…

(Going down)


Ned: I tell you my impression being closer to the work. It has a much larger impact, being underneath it. Looking up at it, it is much more engaging…the feeling of being close to it. I feel more like…

Nora: I feel like… specific energy like heat and light. (looking up the Light Pillar) When you look at it from far it just looks like… the colors are splashed. You have more of an experience of what he’s trying to do when you are standing underneath it.

Ned: (moving to the Rising Heat, and looking up) From down here, the warm colors make a nice contrast.

Nora: Yeah, it’s better from down here. I don’t like it from far away. It looks too contrived or something from far away. [pause] I like the colors on the top, how there is a little bit of lavender. But …I don’t know. [pause] It’s OK.

Ned: I feel like where you view it makes a difference…like this is very interesting looking up at it.

Nora: Yeah.
OLIVE AND OMAR

[Silence of 8 seconds]
Olive: Who are they by?

[Silence of 4 seconds]
Omar: Ummm… I don’t know. The orange painting [pause] looks like, I want to say [pause] it’s not a fresco, I know that much.

(Shy laugh between two)
Olive: Watercolor?
Omar: Yeah, a watercolor painting.
Olive: (smiling) We don’t have to talk about art.
Omar: It’s a very elegant piece. It reminds me of warmth. Orange…
Olive: Yeah, because they use warm colors [pause] and cool colors around there.
Omar: The other painting is with cool colors, like you just said. [pause] It could be summer-winter kind of theme.
Olive: It reminds me of tie-dye. (laugh)
Omar: Yes, it does look like some kind of tie-dye. And the orange painting, it almost looks like some kind of face is in the middle [pause] two eyes, and a little circle that’s a nose.
Olive: That kind of reminds me of a waterfall.
Omar: So a face and waterfall, that’s pretty interesting.
Olive: Interesting. I want to see.

[Silence of 8 seconds]
Omar: There are a few primary colors…and secondary colors. And complimentary?
Olive: Yeah, definitely on that one, the blue and orange.
Omar: Also, [pause] hints of blue in the orange. It goes from light to dark [pause] different shades. So it’s pretty [pause] nice.
PENNY AND PETE

[Silence of 3 seconds]

Pete: Painting? [pause] I think that it looks like a lava lamp with different colors.

[Silence of 3 seconds]

Penny: The colors accentuate one another, making them both vibrant and dark at the same time.

Pete: It might show like the mood of something [pause] like different moods. I don’t know.

Penny: I can see what you’re saying. It reminds me of different feelings [pause] different emotions that people go through.
RUBY AND RICK

Rick: My first observation of both of the paintings is that they use beautiful colors. The colors pop out.

Ruby: Yeah, that one (pointing the Rising Heat) was kind of depressing. The orange one with pink...it was kind of sad. There’s a clown or something right there in the middle.

Rick: Yeah. It looks kind of evil.

Ruby: It seems like it’s burning. The orange one. [pause] This one (pointing the Light Pillar) is more positive.

Rick: The blue one has a better contrast of colors. I guess they use different color patterns with the pink. And, most of the painting is blue. You can see the yellow and pink in it, compared to the other one that’s mostly orange, red and yellow.

Ruby: And the colors bleed in together on both of the paintings.

Rick: And I think the shape also...because it’s not the regular rectangle. [pause] It has an artsy shape to it. So that adds to it as well.

Ruby: Yeah.

[silence of 7 seconds]

Rick: I think compared to the two, the blue one stands out more than the yellow one because of the contrast of colors. The orange one is...

Ruby: It’s negative.

Rick: Towards the top, the orange one is the same. But if you look at the blue-ish painting, it’s more colorful throughout the whole piece.

Ruby: Yeah.
SEAN AND SARA

Sean: So what do you think of these paintings, Sara?

[silence of 5 seconds]

Sara: The one on the right looks like flames, kind of...the bottom, how the flames are blue.

Sean: Sure, I kind of see what you are saying. But I kind of think it’s like a waterfall, or something because of the blue coming off the sides of it. But, then you have bright red and orange in the middle, coming from the bottom. It kind of seems like fire or something.

Sara: Yeah.

Sean: It also it is like the burners in a chemistry lab, like the Bunsen burners with the flame coming up. Maybe it is something like that? [pause] And, the one on the left seems like a lava lamp to me.

Sara: Yeah.

Sean: The shape of the painting that it’s on kind of reminds me of a lava lamp.

Sara: I think it’s like a glass Coke bottle. See how that shape is in the middle?

Sean: I see what you are saying. Then it has this bright, pink spot in the middle...like almost circular. I am not quite what that represents, but it’s definitely interesting.
TYRA AND TODD

[Silence of 5 seconds]

Tyra: I like the use of colors and how big it is, [pause] but I don’t really understand them very well.

Todd: I feel that they are very artistic. I like the use of colors. The one on the right, the blue, looks like a tear drop, almost…like it’s running down the canvas. [pause] But, it looks cheerful at the same time.

Tyra: Yeah.
WILL AND WES

(Going down, then standing in front of the artworks)

Will: *(Speak aloud of the label of Light Pillar)* Trevor Bell, Light Pillar, 1982 acrylic on canvas.


[silence of 4 seconds]

Will: I really like the size and the composition of the pieces. The colors really bring out a lot of different feelings…a good energy. What do you think about it?

Wes: I like the colors, that’s for sure. This one’s pretty cool because it looks like it has a face in it. That’s what I get. I kind of like how it gets wide at the bottom and it skinny at the top. Makes them look bigger than they really are.

Will: Yeah, I agree with that. It definitely makes them look a lot bigger.

Wes: They are very nice. I don’t know the fancy art terms, [pause] but they are pretty cool pieces.

Will: It’s more [pause] of a 3-D type of look.

Wes: Yeah.

[silence of 6 seconds]

Will: I am trying to remember what the names are again *(re-reading labels)* Rising Heat [pause for moving to another label] Light Pillar.

Wes: Yeah, it does look like rising heat [pause] a big flame. It really speaks to the weather outside right now.

Will: Yeah. And Light Pillar…

Wes: I kind of get a waterfall. That’s what I see.

Will: Oh.

Wes: I like that one on the right the best.

Will: I think the colors are probably what speaks to us most about these pieces. [pause] And, the size of them.

Wes: Yes, definitely. It would not have been better if they were small and square shaped.
Will: Yes, but I think overall they are nice pieces.

Wes: Very nice.
APPENDIX H

INFORMED CONSENT LETTER

Dear Participants

You have been invited to be in a study about museum education. You were selected as a possible participant because you are adult museum visitors in pair, and you are from the United States in 18-35 age. I ask that you read this from and ask any questions you may have before agreeing to be in the study.

My name is Hyein Kim. I am a doctoral candidate at The Florida State University working on my dissertation research called Adult museum visitors Paired Conversations in Front of a Work of Art. The objectives of the study are to investigate the content and the characteristics of the conversation that takes place between adult pairs to provide understanding of the nature of adult museum visitors' conversation for future art museum education research and practices. You will be asked to engage in the paired conversation about an artwork at the Florida State University Museum of Fine Arts, Tallahassee. Before starting your paired conversation, you will get a short questionnaire about your background. Next, I will give you a small size hand-held audio recorder to record your conversation. If you do not wish to be audio-taped, you will not be the subjects of this research. In order to maximize the privacy of your responses, I will use pseudonyms (fake names) to collect, record, and report your conversation. If you happen to call each other by your actual names, I will eliminate them from the transcripts.

Your participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with the Florida State University of Museum of Fine Arts. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships. Your privacy will be kept confidential to the extent allowed by law. Results will be separated from your personal information, so there is minimal risk for your responses to be connected to your name and contact information. I am the sole researcher and your personal information will not be
stored with your responses to keep your responses as anonymous as possible. Data will be kept on my
personal computer, which is password protected to maximize the privacy protection of your responses.

Thank you for your time and consideration. This information can help contribute to the future of our field
and you participation is a vital part of analyzing the value of conversation in art museums. If you have
any questions you can call or email me at, or contact my faculty advisor Pat pvilleneuve@fsu.edu. You
will be given a copy of this information to keep for your records.

For further information about privacy policies you can contact The Florida State University, Office of
Research at http://www.research.fsu.edu/humansubjects/index.html. If you have questions regarding your
rights as a research subject, contact the FSU IRB at 850-644-8633 or humansubjects@magnet.fsu.edu.
Sincerely

Hyein Kim, Doctoral Candidate, Florida State University

I have read the above information. I have asked questions and have received answers. I consent to
participate in the study.

________________  _________________
Signature                                          Date

________________  _________________
Signature of Investigator                    Date
APPENDIX I

Human Subject Approval

Office of the Vice President For Research
Human Subjects Committee
Tallahassee, Florida 32306-2742
(850) 644-8673, FAX (850) 644-4392

APPROVAL MEMORANDUM

Re: Use of Human Subjects in Research
Adult Museum Visitors Paired Conversations in Front of a Work of Art

The application that you submitted to this office in regard to the use of human subjects in the proposal referenced above have been reviewed by the Secretary, the Chair, and two members of the Human Subjects Committee. Your project is determined to be Expedited per 45 CFR § 46.110(7) and has been approved by an expedited review process.

The Human Subjects Committee has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval does not replace any departmental or other approvals, which may be required.

If you submitted a proposed consent form with your application, the approved stamped consent form is attached to this approval notice. Only the stamped version of the consent form may be used in recruiting research subjects.

If the project has not been completed by 5/16/2011 you must request a renewal of approval for continuation of the project. As a courtesy, a renewal notice will be sent to you prior to your expiration date; however, it is your responsibility as the Principal Investigator to timely request renewal of your approval from the Committee.
You are advised that any change in protocol for this project must be reviewed and approved by the Committee prior to implementation of the proposed change in the protocol. A protocol change/amendment form is required to be submitted for approval by the Committee. In addition, federal regulations require that the Principal Investigator promptly report, in writing any unanticipated problems or adverse events involving risks to research subjects or others.

By copy of this memorandum, the Chair of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols as often as needed to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

This institution has an Assurance on file with the Office for Human Research Protection. The Assurance Number is IRB00000446.

Cc: Pat Villeneuve, Advisor [p villeneuve@fsu.edu]
HSC No. 2010.4212
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BIOGRAPHICAL SKETCH

Hyein Kim has academic background includes studio arts since she was in high school. She received a BFA and an MFA in curatorial study at Dongduk Women’s University in Korea. While pursuing an MFA, she worked as a curator of education at a variety of art museums in Korea. After earning an MFA in curatorial study, she ran an independent consulting organization for the art museums with other companions. She decided to come to the United States to earn a Ph. D, and she continued her studies in the art education doctoral program at Florida State University.