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## The Meaning of Visual Thinking Strategies for Nursing Students

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THE MEANING OF VISUAL THINKING STRATEGIES FOR NURSING STUDENTS

by

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A dissertation research proposal submitted in fulfillment  
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**August 2013**

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## ABSTRACT

### **The Meaning of Visual Thinking Strategies for Nursing Students**

by

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Nurse educators are called upon to provide creative, innovative experiences for students in order to prepare nurses to work in complex healthcare settings. As part of this preparation, teaching observational and communication skills is critical for nurses and can directly affect patient outcomes. Visual thinking strategies (VTS) are a teaching method that has been studied in primary education to develop communication and observational skills. VTS holds the possibility to improve these same skills in nursing students, but it has only been studied once with nursing students in a quantitative study. Therefore, this qualitative research study sought to explore how nursing students utilize VTS by answering the following research questions: *What meaning does VTS have for nursing students? How do nursing students who have experienced VTS use it in their care of patients?* Students at a large Midwest university in a Bachelor of Science program were recruited for participation. Only students who voluntarily participated in a previous VTS experience were invited to participate in a second VTS experience, followed by an interview. Martin Heidegger developed a phenomenological philosophy about the meaning people attach to experiences, which was the philosophical framework for this study. Heideggerian hermeneutics was used to analyze participant transcripts and interpretive summaries were analyzed. Themes of feeling safe in learning and thinking

and seeing differently were identified and a literature review was performed to further expand these themes. Also revealed in the findings were themes from the perspective of the researcher; validation, mutual respect, and reformulation of the VTS process into clinical practice. Results are presented in Chapter 5. Analysis of the findings and implications for future research are presented in the final, 6th chapter. Also included in the final chapter is a section on how nurse educators can enact the role of *facilitative teaching*, a term that came out of the research findings.

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their stories and lives through my work as an educator. My students and those that participated in this research...they teach me more than I teach them. I respect and value their desire to care for others. Nursing is a joy and a privilege and I cherish our time working together. A special thanks to Linda Duke, Alexa Miller, and Cara Lovati for helping me with VTS!

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## CHAPTER 1

### INTRODUCTION

#### **Background and Significance**

As the pace and complexity of healthcare increases, nurse educators are challenged to create opportunities for students to develop observation and communication skills. Because nursing education curricula are already oversaturated with content, it is necessary to provide these opportunities in innovative, efficient ways (Dalley, Candela & Benzel-Lindley, 2008; Giddens & Brady, 2007; Stanley & Dougherty, 2010). Visual thinking strategies (VTS) are a teaching method that has been used with primary education students to improve observational skills and critical thinking, as well as improve communication skills (Housen, 2001, Housen & Yenawine, 2002). VTS uses a trained facilitator to engage students with a work of art; the training objective was to seek an interpretation of what each student perceived as happening in that work. This process took place in small group discussion formats around the artwork, where students were encouraged to provide verbal, detailed visual evidence as validation for what they claimed “to see.” The ensuing discussion of art allowed students to consider each other’s interpretations. Meanwhile, the facilitator paraphrased back to the group what each student said so that students could experience active listening and could validate what was said firsthand. Students often scaffold off of each other’s comments, building a rich discussion about the art. At the end of the conversation, a discussion about how the facilitator structured the conversation ensued as students reflected on the active listening, seeing, reflecting, interacting, and speaking. This teaching strategy holds potential in nursing education for students to explore their thought processes and consider more than

one interpretation of a given scenario. VTS also offers an opportunity for nursing students to work with others in open, creative ways.

### **Problem Statement**

The dilemma facing nurse educators is how to prepare students to pay close attention to details while conveying those details accurately in a language that reflects what is actually occurring. Is there a way nurse educators can provide students with opportunities to practice being present and attentive? Furthermore, how can nurse educators promote accurate communication amongst themselves and other members of the health care team as well as between nurses and patients? Nursing education is searching for answers to these questions. VTS is one method whereby opportunities can be provided for nursing students to expand their attention to details and can provide a safe learning environment where students can discuss freely and hear how others think.

Nurse educators are called upon to use creative, innovative, student-centered educational techniques to engage students in learning (Benner et al, 2010). Essential skills for nursing students are the abilities to observe closely and communicate. Observational skills are essential in the development of physical assessment for nursing students (Giddens, 2007). Communication skills can directly affect patient outcomes by providing opportunities to be together communicating in diverse health care teams. These skills have the potential to improve patient outcomes.

Therefore, the purpose of this study was to understand the meaning that VTS held for students using Heideggerian hermeneutics as a framework and a research methodology. This study also sought to understand how students used VTS in the care they gave patients. The following questions guided this study:

What meaning does VTS have for students?

How do students use VTS in their care of patients?

### **Phenomena of Interest**

Graduating nursing students are now entering an extremely complex health care system that requires constant work with other professionals who comprise the healthcare team. This complexity is compounded by the various ideas and opinions that healthcare workers bring to their care of patients. A nurse spends more time with the patient in a hospital setting than any other member of the healthcare team. Her communication skills must be keen as she works closely with patients and team members. In order to deliver quality care, it is vital for nurses to pay attention to detail. She must be attentive to physical, emotional, and spiritual needs of the patient, and intervene, communicate or respond to a variety of situations that involve even the subtlest of nuances. Effective communication between patients and caregivers has been associated with improved patient satisfaction and safety, as well as improved patient outcomes (Paget et al., 2011).

Not only are nurses learning to work in diverse health care teams, but they must also work with patients who have a multitude of chronic health problems. Although an estimated 99 million Americans live with chronic illnesses, improved treatments allow people to live longer with chronic disease (Rothman & Wagner, 2003). In an ever-changing healthcare environment, the health care system must meet the needs of these patients through effective and efficient management of chronic diseases. Therefore, it is vital for health care teams to work together to improve care for these patients via clear communication and collaboration in order to improve patient care. Although teams provide most of the care delivered to patients, training remains focused on individual



responsibilities. Consequently, care providers are often ill prepared to work in complex settings from a team perspective (Geis, Pio, Pendergrass, Moyer, & Patterson, 2011).

Nurse educators strive to provide opportunities for nursing students to learn to work more effectively in health care teams. Nurses must attend to patient needs and are also required to constantly assess their physical and emotional needs. In order to do this accurately, nurses must develop keen observational skills and learn to effectively communicate key issues back to the health care team. “Visual inspection is the initial step in the health assessment process and yields considerable clinical data...” (Pardue, 2005, p. 334). “Observational skills are fundamental to high-quality physical examination and comprise the majority of core techniques used by RNs” (Pellico, Friedlaender, & Fennie, 2009).

The Hospital Safety Goals (The Joint Commission.org, 2012) listed improving staff communications as a priority to improve health care safety and patient outcomes. In 2009, the Joint Commission for Hospitals (TJC) revealed that 70% of inadvertent patient harm cases were due to lack of communication. Of those errors, 75% of patients died (Leonard, Graham, & Bonacum, 2004). Ozcan, Bilgin, and Eracar (2011) defined nursing as a “communication between the nurse and the patient” (p. 132); as such, communication skills are fundamental in nursing care. Although nurse educators teach communication concepts in baccalaureate education, they are often taught in didactic lectures with little opportunity for students to apply this knowledge. Even though the theoretical base exists, students often lack both the opportunity to use communication skills and to be evaluated on them (Krautscheid, 2008). Nurse educators can develop strong communication skills in students by providing activities for them to practice this

skill. Application of group activities based on art, particularly in education, provides students an opportunity to practice communication with little stigmatization because art is accepted as a social activity (Pellico et al., 2009). The National League of Nurses (NLN) and the Institute of Medicine (IOM) specifically indicated the need for interdisciplinary education as a way to collaborate and communicate for better patient outcomes (Newhouse & Spring, 2010; NLN, 2011). Interdisciplinary educational endeavors can improve communication skills and provide students with practice working together (Dellasega, Milone-Nuzzo, Curci, Ballard, & Kirch, 2007).

Observational skill development is a critical component of the patient history and the physical examination performed by the nurse is a core technique of assessment (Giddens, 2007). Helping students to be observant and attentive is a fundamental skill needed for diagnostic reasoning (Pellico et al., 2009). Nurse educators are faced with the challenge of developing innovative teaching strategies to ensure that nurses develop these observational skills. Typical approaches in the past have consisted of lectures followed by practice with patients in a clinical setting. These skills are not usually intuitive, thus necessitating the need for students to be able to practice them in a variety of settings. Nurse educators are challenged to teach students how to develop these skills in creative, innovative ways (Benner, Sutphen, Leonard, & Day, 2010). Art can provide an opportunity to improve observational skills and demands “a high level of consciousness about what one sees...a fine attention to detail and form: the perception of relations; the perception of nuance; and the perception of change” (Rogers, 2002, p. 230).

Art has been used to improve observational skills in a variety ways in nursing and medical education (Dolev, Friedlander, & Braverman, 2001; Frei, Alvarez, & Alexander,

2010; Inskip & Lisko, 2001; Loden, 1989). Access to clinical sites is often difficult, as sites are limited with multiple schools requesting placement for students. Art is a way to provide students an opportunity to practice observational skills. Examination, inspection, and discussion of these techniques can be helpful as students learn through the study of line, form, and composition.

### **Value and Theoretical Application of VTS**

Abigail Housen and Philip Yenawine (2002) created the student-centered curriculum of VTS that focused on group discussions about diverse art objects. Based on the premise that how one looks at an object can influence how one sees, Housen derived that how one questions in art discussions can influence the conclusions one reaches (Housen, 2001). The original purpose in creating this program was to increase aesthetic understanding for children and help beginning viewers of art to develop a rapport with the art. Housen studied aesthetic thought throughout the 1970s and 1980s and identified distinct patterns of thinking that correlated with the amount of exposure subjects had with art.

Lev Vygotsky (1978) was an educational theorist who held specific tenets of education upon which Abigail Housen based VTS. Vygotsky believed students would learn better in social contexts where they could work together to construct meaning and build upon each other's ideas. He also believed that students needed to engage in verbalization of their thoughts to reach a higher level of thought process. This verbalization could be done in social exercises with other students in a collaborative manner (Vygotsky). Housen (2001) used these tenets to influence the structure of a VTS experience.

Housen wondered how some people could look so closely and engage with art while others merely glanced at it, so she focused her research there. She was interested in the moment to moment process of how viewers made sense of a work of art. By studying the thinking process, she felt she could draw conclusions about how one arrived at his/her thought. “How does one build meaning? What are the moment-to-moment thoughts in the aesthetic experience?” (Housen, 2001, p. 4).

Housen and Yenawine (2002) were also interested in increasing the amount of time that art museum visitors engaged with a work of art, since average viewing time was 30 seconds. In order to engage visitors for longer periods of time they created a program that used a facilitator who engaged viewers of art in discussions. Later, this method was studied extensively by Housen and found to accelerate students’ aesthetic development, but it also appeared to increase critical thinking and communication skills in elementary students.

Students gathered around a painting and were asked to look closely at it. A trained VTS facilitator then started a discussion about the art by asking a series of three questions to students: 1) *What is going on in this painting?* 2) *Tell me what you see that makes you say that?* And 3) *What more can you find?* These questions were specifically designed to provoke students to look closer at the artwork and to provide visual evidence for what they were seeing. All students were encouraged to participate and equal attention was given to them; as students listened to each other, they considered all answers as a possible interpretation. Each student’s comment was acknowledged and facilitators continually pointed at the painting to keep the group focus on the artwork. Students often scaffold off of each other’s comments, and the facilitator reflected back

each time a student responded in order to make sure she understood what the student intended (Reilly, Ring, & Duke, 2005). This line of questioning provided students the opportunity to agree or further explain how they arrived at their interpretation and validated the content of what was said.

VTS studies are limited in adult education, specifically medical and nursing education. The VTS process was based on a trained facilitator asking a series of three questions that were deliberate in how the questions elicited responses from participants. The first question, “What is going on here?” was asked and the facilitator allowed the respondent to think aloud about what he was seeing. Participants responded using a stream of consciousness, often using a narrative to describe what he saw. The facilitator then asked, “Tell me what you see that makes you say that,” which elicited the respondent to give visual evidence for what he was seeing, and the facilitator gave no indication that she was judging whether the respondent was right or wrong in his interpretation. This question required the viewer to look more closely and pay close attention to detail. The viewer was asked to provide evidence to back up his answer to the first question and relate that evidence back to his first answer. The viewer had to revise and edit his response, noting any new observations. Next, the facilitator asked, “What more can you find?” which required respondents to dig deeper and look closer for more detail. Looking again helped the viewer to reconstruct his thinking after considering other participant responses, and modify his thoughts. This method of inquiry is a way for students to engage in problem solving that can develop a deeper, more thorough way to analyze and consider. This method allowed the respondent to think

aloud with the group, to look for more detail, to consider more options, and to participate more.

As viewers attempted to construct meaning, Housen noted they were more active with VTS and seemed to develop a more meaningful way of learning instead of passively receiving information (Housen, 2001). Housen also found that students had the luxury of hearing how other students built meaning, which accelerated their own thought processes and exposed them to other ways of thinking (Housen, 2001; Landorf, 2006).

Furthermore, because teachers were facilitating these conversations, students did not feel judged and were more likely to speak out and participate because there were no “right” or “wrong” answers; all responses were given the same amount of attention and credibility.

Facilitators appeared non-intrusive and non-evaluative, focusing on the artwork and linking it to student responses. They paraphrased what the student said which allowed students to clarify any meanings and ensured that students were accurately understood. Eventually, classroom teachers taught this curriculum over the course of a school year. This technique relied on art images as a tool for reflection and multiplicity of interpretations (Landorf, 2006).

This unique teaching strategy has the potential to develop observational skills in nursing students and to enhance communication skills as students from other disciplines participate in VTS experiences. It also provides a unique way for students to engage with other members of the health care team in meaningful ways to learn how to work in groups similar to how they might work on those teams during their careers.

## **Definitions for Study**

**Visual thinking strategies.** For the purpose of this study, the terms Visual Thinking Strategies (VTS) is defined as a teaching method with specific guiding principles used to facilitate a discussion about a work of art . A trained VTS instructor asked three essential questions about each work of art. The questions were: 1) What is going on in this picture? 2) What do you see that makes you say that? 3) What else can you find? Implicit in the teaching strategy was that after each student commented, the facilitator asked, “What do you see that makes you say that?” and then s/he listened to the student. After the student responded, the facilitator paraphrased back what was said and clarified with the student to make sure s/he was accurately heard. All students were encouraged to participate and discussions centering on a work of art usually lasted approximately 10 minutes.

**VTS facilitator.** VTS facilitators were trained in VTS by the art museum. This training consisted of a two-day practicum that focused on the practice of VTS and reflections about the elements of the teaching method. Image selection and viewer participation were aspects of the training that were covered for new facilitators (<http://www.vtshome.org/training>). Only trained VTS facilitators were used in this research study.

**Nursing students.** For the purpose of this study, the definition of nursing students was that of students enrolled in a BSN program at the university where this student researcher is employed, and included those who have already completed their sixth semester of an eight-semester program. Accelerated students were also included in the definition of students. They already held a previous bachelor’s degree and had

returned to school to receive a second degree in nursing. Their program was a six-semester program and they were in the same obstetrics course as the traditional students. These students already had one 60-minute exposure to a VTS session as a homework option during a “Developing Family and Child” course and were recruited during their 7<sup>th</sup> or 8<sup>th</sup> semester to attend another VTS experience for the current study.

### **Summary**

This chapter emphasized the importance of communication and observational skills in nursing. It also offered some insight into how art can be used in nursing education to provide effective opportunities for nurse educators to develop these skills in students. Focused on improving communications and observational skills, VTS is a new teaching method that incorporates proven strategies with group dynamics using art. This method has not been thoroughly studied in nursing education and holds potential to improve essential nursing skills of observation and communication. This proposed research study sought to provide a window into understanding what VTS means for students and how it affected their care of patients.



## CHAPTER II

### PROGRESSION OF THE STUDY

#### **Introduction**

This chapter provides a historical context for VTS, and contains a literature review of the use of visual arts in nursing education, VTS in primary education, and VTS in medical education. Additionally, Lev Vygotsy's basic tenets of his educational philosophies are presented as well as a sample of his framework used in nursing education. A brief summary of the background of the student researcher is also provided.

#### **Historical Context: Review of the Literature**

A literature search was conducted using PubMed with the search term "Visual Thinking Strategies" yielding two articles and one commentary. A search of the educational database, EBSCO was completed using the same term, "Visual Thinking Strategies" and revealed six articles, with only one providing the research findings from Abigail Housen, the developer of VTS. A final search was completed in PubMed using the search term "arts in nursing". This search produced 375 articles, but articles that dealt with the topic of the art of nursing, art therapy in nursing, and art therapy for patients were excluded from this literature review. Most articles in the nursing literature that dealt with visual arts were descriptions of teaching techniques used in nursing education. Seventeen studies are reviewed using the term "visual arts in nursing education." This literature review is divided into three summaries: VTS in nursing and medicine, VTS in education, and the use of visual arts in nursing education.

## **VTS in Nursing and Medicine**

VTS has only recently been studied in medical education and only once in nursing education. Reilly et al. (2005) discussed a modified version of VTS in combination with an art appreciation class at a large western medical center and provided anecdotal insights from faculty and students. Visual acumen, diagnostic abilities, and communication skills were enhanced after several exposures to this combination arts-based approach. A facilitated VTS session was done at a house retreat with medical staff, and residents at an art museum. A trained VTS facilitator led the session for a one-time discussion. A description of VTS was provided along with discussion about communal understanding. Feedback about the experience was given at the end of the session with general comments. Participants noted nuances in texture, color, and perspective. They also felt that group dynamics were improved with this exercise and that new insights were gained through interpreting works of art. “My brain passed over things that others brought to my attention. The painting didn’t change, but my perceptions of it changed through this process” (Reilly et al., p. 252).

Klugman, Peel, and Beckmann-Mendez (2011) studied the use of VTS with medical and nursing students at a large medical center. All students were recruited in the nursing and medical school at a large southwest medical university and 32 participated. All 32 students participated in a VTS intervention and no control group was used. The 32 students who were recruited were exposed to three 90- minute VTS sessions at a local art museum with VTS-trained facilitators. Students were randomly assigned into three groups with proportional disciplinary representation, with three VTS museum facilitators. Two groups had 11 participants and one had 10. The same three works of art were used

for each group and facilitators used the same guiding VTS principles in discussion of these works of art. Works of art were presented anonymously so that identifying tags were covered to hide the artist and medium. Klugman et al., (2011) discovered that in the first week, students looked at three works of art and spoke out to the group about their interpretation of the work. In the second week, students did the same, except that for one artwork, they described in writing what they viewed, then shared it with the group. The third week, students worked with less representational works of art and were given a single fact about the art or artist. After each session the students were given educational handouts about the art they viewed for each session. A variety of evaluation methods were used for Klugman et al.'s study. Klugman et al. administered both pre and posttests to all students, including the Geller and Budner's Tolerance of Ambiguity Scale and the Communication Skills Attitudes Scale (CSAS). Students also answered, "What do you see?" questions on three images of patients after VTS. Klugman et al. analyzed these responses using MS Word raw number counts and a complete tally of numbers of observations. In ambiguity and CSAS testing, no differences were noted on pre and posttests based on sex or discipline. In number of words and observations, no differences were noted among nursing and medical students. Female students made significant improvements in time spent observing ( $P=.011$ ) and in number of words used in describing art ( $P=.007$ ), and in number of words used describing patient images ( $P=.000$ ) compared to men. Male time spent examining images went from 51.2 to 52.9 minutes, and females went from 25.4 minutes to 59.0 minutes. Male student number of words to describe an image went from 139.6 to 193.9 words, and female average words went from 105.8 to 212.3. Klugman et al.'s results showed that students increased visual

observation skills and improved on both tolerance of ambiguity and the CSAS scores. Their study did not give any rationale for the choice of the tools used and no content validity or reliability information was provided about those tools.

Naghshineh et al. (2008) used a modified version of VTS and an art appreciation course to enhance diagnostic acumen through visual literacy skills. The art appreciation course was implemented at Harvard University with medical and dental students and was a semester long course that focused on interpretation of various works of art related to specific medical conditions. All pre-clinical dental and medical students were invited to participate via email and enroll in a course titled “Training the Eye: Improving the Art of Physical Diagnosis.” Fifty six students expressed an interest in the course and 24 students were randomized to participate while 32 were put into a control group. An additional 15 students were recruited later to establish adequate power based on predetermined calculations so that the control group had 34 students. The 9 week course was given as a spring term elective and consisted of 8 weekly 2.5-hour didactic sessions. The didactic sessions were divided into a 75-minute observation exercise at the Boston Museum of Fine Arts using VTS followed by a one-hour lecture linking visual art concepts to physical diagnosis. For example, the observation focus for one session was texture and pattern and the didactic lecture was focused on texture and pattern recognition in dermatologic diagnosis, and the VTS art work examined was Jackson Pollack’s *Number 10*. An optional 9<sup>th</sup> session focused on drawing the human figure with a live model. Visual skills examinations were given as pre and posttests to participants. Results were blinded and analysis of results revealed that the intervention group exposed to the semester-long art appreciation course scored higher on the visual skills examination than

the control group. For students in the experimental group, this finding was an increase of 5.41 (SD0.63,  $p < 0.0001$ ) observations after the course as compared to before starting the class. This change was a 38% increase in observations over the control group.

Qualitative analysis of student responses yielded five themes: observations, interpretations supported by evidence, speculative thinking to generate multiple interpretations, awareness of absence of observations (pertinent negatives), and use of fine arts concepts. This study did not provide any demographic information about students who were in the intervention group. Students who had prior art appreciation experience may have had more observational skills before the intervention, but that option was not discussed.

### **VTS in Primary Education**

Housen undertook a large, longitudinal study in Byron, Minnesota with second and fourth graders over a five-year span. Beginning in 1993, two schools were selected to be in the study, one as a control and the other as experimental. In this controlled experimental design, a VTS curriculum was implemented in the intervention group. Schools were matched for socioeconomic status, race, mobility and state test scores. Pre and post data was collected using the Aesthetic Development Interview (ADI) and the Material Object Interview (MOI). These were both audio tools that elicited responses in ways that asked the participant to think aloud. Responses were analyzed using the Aesthetic Development Coding Manual. Demographics, writing samples, art and museum biographies, teacher logs, teacher trainer and site coordinator notes, student exit interviews, videotapes, and debriefing interviews were all used to assess VTS. Housen

felt that general observation methods would not capture whether critical thinking was enhanced, so she used a variety of components to attempt to measure it.

Aesthetic development was higher in experimental groups as well as improved communications skills and critical thinking (Housen, 2001; Housen & Yenawine, 2002; Yenawine, 1998). Housen identified how the transfer of critical thinking occurred in two ways: context transfer and content transfer. Context transfer in the intervention group was more significant than in the control group by year 5 (year 1:  $F=1.647$ ;  $df=1.60$ ;  $p<.2043$ ; Year 5:  $F=15.234$ ;  $df=1.60$ ;  $p<.0002$ ). Mean critical thinking scores transferred across content of the experimental group by year 5 was more than twice that of the control group ( $F=6.409$ ;  $df=1.84$ ;  $p<.01$ ). In the category of aesthetic development, the intervention group had a significantly higher distribution of students who moved into higher stages of aesthetic development ( $t=4.70$ ,  $df=86$ ,  $p<.0001$ ).

Interestingly, Housen noted an unexpected outcome of the 5-year VTS curriculum. In the spring of 1996, Minnesota began to require all eighth grade students to take a state achievement test. In 1997, the Byron 8<sup>th</sup> graders only had a 54% pass rate in reading. In 1998, the Byron 8<sup>th</sup> graders who had been in the VTS program since 1993 (the experimental group) took the reading test and 77% passed or scored above the state's passing score. (The state score to pass was 68% and the control school score was 71%). The 23-point gain was 2.5 times the state average of a 9-point gain, placing the school in the top 8% for gains in reading. From 1999-2000, 88% of the Byron 8<sup>th</sup> grade students passed. Housen reported that the principal, teachers, and school board attributed this improvement to the 5-year pilot, but no data was shown to correlate it with these findings (Housen, 2001).

Housen identified that she had collected data since the 1970's, collecting over 6000 ADI transcripts from 15 cultures for longitudinal studies. Exact study design and statistics were not found, only a summary of data was presented in various transcripts of lecture presentations. General claims made in these papers are presented. Aesthetic thinking and stages did appear to be different across American and Eastern European populations, and no gender differences were noted in trials. Measurement of aesthetic response in teachers, children, and museum professionals was predictable. It also correlated with the amount of time spent viewing and reflecting about art. VTS discussions appeared to significantly accelerate aesthetic stage progression in a variety of settings that did not appear in control groups (Housen, 2001; Housen & Yenawine, 2002). Housen, however, did not discuss how this occurred or what key components of VTS might be causative in this regard.

Various teachers who have used VTS in their curriculum have found that students had greater comprehension skills, learned to read quicker, and improved their writing (Longhenry, 2005; Lukehart, 2010). Other studies indicated students improved observational skills and provided more evidence to support conclusions (Curva, 2004).

### **Vygotsky in Nursing Education**

Various nursing education studies use a theoretical framework based on the philosophies of Lev Vygotsky. Although several descriptive articles were found in the nursing education literature based on principles of Vygotsky, few articles were true research endeavors that went beyond the scope of this current study. A few key examples of nursing interventions based on the educational philosophies of Vygotsky were discussed.

A key principle of Vygotsky's philosophy of education was that mental processes could be learned through tools like language and the arts. Based on this philosophy, Eisner (1993) found that arts-based educational research could lead to empathy and a deeper understanding through observation and descriptive analysis, with students using rich language to describe their observations. Vygotsky believed that social and cultural influences shape one's development and that learning can occur in situated activities in social spheres (Samaras, A. 2010). A key component of this thought was that cognition is a socially mediated process through language and that education can lead development, both in students and educators (Samaras, 2010).

Rhodes, Schutt, Langham and Bilotta (2012) described an educational intervention based on Vygotsky's social cognition development theory of learning. According to his theory, Vygotsky believed that learning occurred in a social and cultural environment as opposed to an individual phenomenon. Students in their junior and senior year participated in a four-hour seminar based on Miller's Wheel of Professionalism in Nursing. This learner-centered seminar allowed junior students to discuss predetermined scenarios with faculty and senior students to promote critical thinking and exploration of ideas in out-loud verbal ways. Based on the zone of proximal learning (Kozulin, Ageyev, & Miller, 2003), students were able to develop more complex ideas in nurturing environments from a lower level to a higher level of thinking with guidance from peers and educators. Senior students worked with junior students to help identify professional behaviors and to problem solve specific scenarios based on professional behaviors. No evaluation was identified in this study, and the only discussion about effectiveness was the mention that no disruptive side conversations occurred while this activity took place.



The authors also discussed how the senior students noted professional growth during this activity, but no information was provided about how this activity was evaluated.

Sandahl (2010) used baccalaureate senior nursing students at a small private college to test whether collaboration with other students helped increase test scores. Based on Vygotsky's theory of culture and collaboration in social settings, as well as social interdependence and behavioral learning theories, Sandahl randomized nursing students into four groups, two each semester for spring and fall. Exam scores evaluated student learning. Students took exams in groups and alternatively took individual exams (two exams in a group and two individually). After group exams, students completed a group testing evaluation form. Mean scores from each unit exam and a final exam (which students completed individually) were calculated. The Group Testing Evaluations were based on a 7-point Likert scale. Students also filled out course evaluation forms. Analysis showed that students who took exams collaboratively scored significantly higher ( $p < .05$ ) on the question "Is there a difference in learning for students taking exams collaboratively and students who take individual examinations?" (Sandahl, 2010, p. 144). No difference on final examination scores was noted. The second research question asked, "Is there a difference in retention of material for students taking examinations collaboratively and students who take individual examinations?" Using a one-way MANOVA and using final exam scores, no significant effect existed ( $F(12,262) = .921, p = .526$ ). On course evaluations, students noted respectful and collaborative behaviors within the group; they also noted that discussing and debating were important to their learning; importantly, they found hearing others' perspectives was helpful. Students remarked that they studied more when they took group tests. The

limitation of Sandahl's study was its small size; therefore, it lacks the power for generalizability to a larger group. Sample characteristics were homogenous, with the majority of participants being female, and in their early twenties.

Sanders and Welk (2005) published an article based on Vygotsky's Zone of Proximal Development to base their teaching strategies in a school of nursing. As a constructivist, Vygotsky believed that knowledge was built upon the interaction between the learner and others who engaged in social interactions, thus enabling the learner to build a higher order of thinking. Based on this hypothesis, Vygotsky held that learning was a developmental process. The educator's role in learning is to act as a collaborator and guide student interactions with others. Scaffolding techniques were used to construct learning based on providing a framework for students, then slowly withdrawing support based on student needs as they progressed in higher order thinking (Sanders & Welk, 2005). Scaffolding can be done using feedback, questioning, cognitive structuring, and modeling. Specific examples of modeling were discussed including the use of an example between two senior students who read an insulin order incorrectly, mistaking 7u for 70. Simulation laboratory exercises were used to model for students how to handle these types of situations. An example of the use of feedback was given using a "think-aloud" strategy that allowed students to articulate their rational and action plan. Faculty could then provide feedback and logic as well as compare thinking to standardized norms so that students were able to redirect their thinking. Questioning students by instructors can come in the form of faculty or student-generated questions, closed or open-ended questions, and convergent or divergent questions. Based on the types of questions, students may use higher levels of reasoning and begin to progress in higher level

thinking. Cognitive structuring reveals how students organize their thinking and can be revealed through concept mapping. Students and instructors can gain insight into cognitive structuring through examination of works and connections that students use or omit (Sanders & Welk, 2005). Although their article was not a research study, the authors identified key Vygotsky principles and gave relative examples of how these principles were enacted in their course, providing the reader with insight into educational influences of this educational philosopher.

Critical thinking is difficult to facilitate for nurse educators. Chabeli (2010) described concept mapping as a way to facilitate learning based on students' abilities to link concepts and describe relationships. Based on language, students can develop inquiring minds and think aloud, a process that models thinking for other students and helps construct their understanding of how others think. Sharing knowledge and encouraging dialogue helps to develop critical thinking and Chabeli discussed how concept mapping helps with this process. She had students take a concept such as asthma and by using diagrams, colors, and shapes, demonstrate and join ideas around their existing knowledge. As students add to and revise the concept map, they are expected to use evidential reasoning and contextual considerations to build a cogent argument. This visual framework for learning can be used for other students to convey visually how asthma is treated. Although her study was an experimental narrative rather than a research study, Chabeli (2010) described concept mapping using learning theories based on Vygotsky and Dewey. Concept mapping has been used to develop critical thinking, and Chabeli's paper discussed the theoretical framework upon which it was underpinned.

Vygotsky also believed that when students engage in social interactions and react to environmental stimuli, ideas, values and knowledge are shaped and formed. This participation by the student requires active engagement and participation (Vygotsky, 1978). Vygotsky believed that learning is active and can be facilitated by the educator, who is responsible for creating an environment that is conducive to the student's learning and further exploration of ideas. He believed that student learning must be meaningful to be impactful and the teacher should foster critical thinking through the provision of meaningful learning strategies (Vygotsky, 1978).

Another Vygotskian principle is that the construction of knowledge can be done collectively and the student can use that knowledge individually in future practice. Students work on a problem together to construct knowledge, and then use that gained insight in future problem solving as applied learning (Putney et al., 2000). According to *Vygotsky, a reciprocal process occurs when learners utilize thoughts and interactions in classroom situation and then go on to link those to interactions with others in real-world experiences. The teacher's role is to coordinate these activities between academic endeavors and community interactions (Vygotsky, 1997).*

### **Visual Arts in Nursing Education**

Loden (1989) described an art museum experience with baccalaureate nursing students during a clinical course that helped students to link growth and development stages to works of art. Students were asked to identify concepts of wellness and illness and describe physical appearances and stage of growth and development. Loden utilized a post conference where students discussed those characteristics and how to recognize human conditions, linking them with nursing diagnoses. Students evaluated the course

and noted that this experience made them more aware of how to do a holistic evaluation. Loden also discovered that students' critical observation and thinking skills improved and that their observational skills were more precise. No statistics were provided by this study and only positive statements were included about the experience.

Frei et al. (2010) discussed the development and implementation of an art course that was used in an accelerated baccalaureate nursing program. *The Discerning Eye* was a course developed at Rush University College of Nursing and the Art Institute of Chicago where nursing students, who were in their final year of a medical-surgical rotation, attended. Using five works of art, students were asked to describe what they saw. Students shared initial impressions from a distance of 20 feet, and then reexamined the artwork from a closer vantage point of 2-3 feet. Consequently, students found many more newly-seen details to discuss and students discussed how each of their distances of interpretation changed their perceptions of the artwork. Through qualitative research methods, students found this experience broadened their understanding of patient encounters. They also noted that discussing art in groups helped them to understand the role of perception in the act of observation. Specifically mentioned by these students was the awareness they developed of making accurate, precise observations.

In a master's degree accelerated program, Pellico et al. (2009) used art experiences in nursing education to improve observational skills. Sixty-six students were recruited through voluntary participation and divided into 12 clinical groups, 6 groups (n=34) of which were assigned to a "Looking is not Seeing" class. The other students (n=32) were in a traditional classroom and clinical learning course. No pretest was given. The "Looking is not Seeing" course consisted of a 90 minute session where students were

assigned a preselected painting and given 10 minutes to study their painting and record what they saw. At the end of the 10 minutes, students were asked to describe the painting with the rest of the group, a nursing instructor, and docent. Then, with the help of the docent and instructor, students were coached to consider how their feelings and thoughts as well as their descriptions were communicated and to reflect on aspects like light and posture. Interpretation was grounded in their visual evidence.

After the session, all of the students, both from the experimental and the control group were shown six patient photographs and allowed five minutes to view it and five minutes to record details, including interpretations of a clinical issue represented in the photo. The responses were individually sealed in an envelope and labeled as the photographs, 1-6. Number of observations were measured by word count and tallied for each picture. Observations were categorized into clinical findings and nursing diagnoses. The results showed that students in the intervention group made significantly more observations than the control group ( $p < 0.05$ ). The median number of observations in the control group ranged from 36-55 compared to the intervention group, which ranged from 51-68. The intervention group recorded a greater number of plausible objective clinical findings for the photographs ( $p < 0.05$ ) compared to the control group. More alternative diagnoses were made in the intervention group than control on 5 of 6 photographs ( $p < 0.05$ ). One photograph did not rise to the level of statistical significance. When considering environmental factors of the photographs, no differences were found between the control and intervention groups. The researchers did not reveal whether students had the same docent for the experience, which could have greatly affected the results.

Inskeep and Lisko, (2001) described the use of art in a fundamentals course with sophomore nursing students to improve their ability to make nursing diagnoses. Thirteen works of art were chosen that represented a variety of nursing diagnoses and the trip to the art museum was used as an alternative clinical laboratory experience. Students were given a list of North American Nursing Diagnosis Association (NANDA) diagnoses and the list of assigned works of art. Given two hours, the students explored the artwork and gathered for a one-hour post conference. Students discussed emotional and physical needs identified in the paintings and discussed possible nursing diagnoses. They described their appreciation for hearing how two different people can interpret data in a variety of ways, which they found challenging and helpful. In their evaluations, students also noted that by refining their ability to formulate nursing diagnoses, that activity had boosted their critical-thinking skills.

A group of nursing lecturers in Scotland implemented a program of modules using art in a bachelor of nursing course to explore possible directions for the use of art in nursing education. McKie, Adams, Gass, and Macduff (2007) created a module for students to choose using an enquiry-based learning approach. Students chose between one of seven modules that included: film/video, literature, poetry, photography, art, student exhibition, or student group presentations. Foundational themes in each option included narrative, interpretation, response, ethics, and transformation. This particular article did not identify how assessment and evaluation were performed. McKie et al. wrote that students were able to be creative and innovative in assessment; both students and teachers found the modules to be “fresh and challenging” (2007, p. 160). However,

McKie et al. did not provide details of how foundational themes were analyzed and provided no framework for the study.

In a different study, students in an undergraduate research class to reduce stress used a creative arts project. Walsh, Chang, Schmidt and Yoepp (2005) used a quasi-experimental design with BSN students who were enrolled in a nursing research class. Students were randomly assigned to an experimental or control group and completed demographic information. Three pretest-posttest self-report short instruments were administered to both groups. These included the Mini-profile of Mental States (Mini-POMS), the Beck Anxiety Inventory (BAI), and the Affects Balance Scale (ABS), which measured positive and negative emotions. Thirty-six junior and senior BSN students agreed to participate in the study during two weekly classes. The experimental group met for a creative art intervention designed to reduce stress and participated in four activities: making greeting cards, future image of student as professional-type self-portrait, group project to make a silk wall hanging, and small group of 3-4 students to paint a mandala. Quantitative data results were compiled. A *t* test was used to determine pre and posttest differences in scores between the experimental and control group for stress. The experimental group had a significant reduction in stress ( $t=-3.20$ ,  $p=0.003$ ), decreased anxiety ( $t=-2.29$ ,  $p=0.029$ ), and more positive emotions ( $t=3.99$ ,  $p=0.001$ ) compared to the control group. Qualitative data was evaluated using professor's evaluations of anonymous comments, but the specific type of analysis was not revealed. Sample comments were positive and included statements related to art as a stress relief and the activity that was used as an example of research, which students found interesting.



Margaret Cole Marshall (2003) discussed the use of mandalas as a teaching method in a mental health course. Although her project was an experimental narrative, it was, therefore, not a true research study, students were asked to create a mandala at the beginning and end of the course, in groups of 7-10. Faculty observed the dynamics of the group and related spiritual and religious significance of mandalas to the course content. Course objectives of communication and accountability were related to the creation of mandalas. A university Learning Resource faculty came in to assess the group process for evaluation. Student evaluations were also used to discuss the use of mandalas. Results reported that working in a group on a mandala helped students to engage in reflection about the group process and faculty noted that this experience helped them to meet the learning needs of a new generation of students.

Chen and Walsh (2009) also used art activities in Taiwan to affect attitudes of nursing students toward elders. Students took pre and posttests to compare self-transcendence and attitudes toward elders in a convenience sample in fourth year Associate of Science nursing students. Creative bonding intervention (CBI) activities were used in an intervention group (n=100) and were compared to pre and posttests of the control group (n=96). Both groups participated in 8 weekly 2-hour sessions. The intervention group participated in art activities that engaged them with elderly clients. The control group worked in a classroom and obtained didactic information and class discussions. Demographic data was collected on both groups, including their experience of working with the elderly. The self-transcendence scale (STS) was used to measure inter and intrapersonal self-transcendence. Chen and Walsh used the revised Kogan's attitude toward old people (RKAOP) scale to measure nursing student attitudes toward

the elderly. Chi square tests and independent *t* tests were used to determine differences in the two groups. Chen and Walsh (2009) found no difference in the STS scales between control and intervention groups ( $F(1,191) = 3.5, p = .06$ ). ANCOVA tests indicated no significant differences between mean post-test scores. Intervention students scored higher on the RKAOP exam  $F(1,191) = 4.1$  with ( $p = .04$ ). Chen and Walsh's study had several limitations. Participants were only recruited from one nursing school and all the participants were young, single women, limiting the generalizability of the study. There was no control for students' creativity or elder cognition. Reliability and validity was not established on the Mandarin Chinese version of the STS and RKAOP instruments.

Art was used as a scaffold for baccalaureate nursing students to create a personal expression of nursing and self-awareness (Hydo, Marcyjanik, Zorn, and Hooper, 2007). Ninety-one students were enrolled in a first semester Introduction to the Profession of Nursing course in a Bachelor of Science in nursing program at a Midwestern university. Art was used to create a personal expression of what nursing meant for them. Students also answered written questions about their personal expressions and what they learned about themselves and their classmates' presentations. Using naturalistic inquiry, results were analyzed for common themes and the four researchers identified detailed coding categories. Trustworthiness was established using triangulation. Peer debriefing allowed the researchers to expose their biases. Four major themes emerged from Hydro et al.'s data analysis: art and creativity, teamwork, boundaries and horizons within self, and boundaries and horizons in the profession.

Brenda Pavill (2011) described an assignment that was given to baccalaureate nursing students in their second semester of the junior year. Students were asked to

present an artistic creative expression that reflected the care needs of a patient. Students submitted sculptures, photography, paintings, music, creative writing, role play/dramatizations, and collages. Students commented that they enjoyed seeing how other students expressed their feelings about nursing, and appreciated how different they were. Faculty appreciated how students expressed themselves in such diverse ways and looked beyond the physiologic care of patients into a humanistic approach.

Wikstrom (2000) used third year nursing students in their final rotation of a three-year undergraduate nursing program in Sweden (n=206). Students were divided into 44 groups with 5 or 3-7 students in each group and worked in an art gallery. Groups chose one work of art to study and were asked to reflect on metaphoric expressions of interpersonal relations in the artwork. The students were to link the people in the artwork to an experience from nursing. They were also asked to write their interpretations individually, then as a group, then to write an evaluation of the program. General findings were discussed that gave summaries of what students liked about the project. Students noted that the discussions were helpful in relating to clinical and interpersonal relationships. No discussion of how the analysis was given, nor was any discussion about recruitment or demographics provided about the study.

Wikstrom (2001) recruited first year nursing students in a 3-year Swedish nursing program from two universities. Eight groups of students were randomized into four intervention groups (n=121) and four control groups (n=146). Using reproductions of two works of art, students in the intervention group were asked to discuss typical good nursing care in small groups. The control group discussed what constituted good nursing care without the pictures. The Wheel Questionnaire was used to collect responses in both

groups. This questionnaire mapped critical aspects of perception including structure, motivation, and emotional investment. Students were asked to write out aspects of what they considered good nursing care and rank them in order of importance. Significant differences in emotional investment and structure were noted between groups (structure,  $P=0.0001$ ;  $F$ -test=22.358; emotional investment  $P=0.00001$ ;  $F$ -test=35.541).

Characteristics of good nursing care were noted as follows by the intervention group: concern, 54%; respect, 33%, empathy, 9%; and observation, 4%. The control group noted the following characteristics of good nursing care: attentive listening 35%; information, 26%; empathy, 24%; respect, 8%; and comprehensive view, 7%. No validity or reliability information was provided about the Wheel Questionnaire, which was designed by the researcher. Details about how the instrument was used were vague.

Whitman and Rose (2003) discussed the use of art as a way for students to explore a personal philosophy of nursing. Final semester seniors who were enrolled in a Professional Issues course were asked as a final assignment to identify a personal philosophy of nursing using music, dance, sculpture, mobiles, music painting or poetry. Students submitted a variety of forms of art including posters, journals with reflections, pictures, song, and a children's book. At the end of the class the authors noted themes that emerged during student presentations, although it was not a formal study. Whitman and Rose failed to provide any information about the type of analysis, nor was a framework for the study presented. Importance of being present, advocacy, health promotion, and respect were all identified as themes.

In Glasgow, Scotland, Philip Darbyshire (1994) developed a course titled "Understanding Caring through Arts and Humanities." That course was offered for

nursing and other healthcare professionals and created a community of learning that promoted discovery of creative approaches to study human experience related to caring. Poetry, music, art, and photography were used. Students also watched plays and films and had art gallery tours. The course was evaluated using Heideggerian hermeneutics. Two-hour focus group interviews were conducted with seven students and salient comments and themes emerged. These themes included building a new house of being and learning, different slants and different lights, and coming home to knowledge.

Aesthetic knowing is a topic that has been widely explored using arts and humanities. Koithan (1996) wrote extensively about aesthetics as a practice modality. Although aesthetic modalities were not within the scope of this literature review, she wrote about the use of poetry, visual arts, photography, sculpture, music, and journaling as a way for nurses and their patients to express meaning and enhance communication. Michael, Candela, and Mitchell (2002) also explored aesthetic knowing when students used aesthetic projects (e.g., poetry, song, pictures, letters, and drawings) with clients who had a chronic illness.

Emmanuel, Collins, and Carey (2010) described an assessment approach used in first year nursing students to develop therapeutic communications, critical thinking, and writing skills in Australia. One-hundred and forty-six first year students in a Bachelor of Nursing program participated in the study. They were asked to design a wearable mask to display an abstract interpretation of therapeutic communication skills required as a student nurse. The students were then asked to describe therapeutic communication using their mask and discuss how the skills can facilitate nurse-patient interaction. Masks were evaluated for visual engagement, creativity, and links to therapeutic

communications according to criteria provided to students. Written reflections were also reviewed and analysis was done between four teachers. Analysis of assessments was based on Biggs' structure of observed learning outcome (SOLO) taxonomy, student evaluations, and verbal feedback from teaching team and academic staff. Of the original 146 students enrolled in the class, 118 achieved a passing score. When asked to volunteer for further assessment using the SOLO taxonomy, 56 volunteered. 70% of students (n=35) reported that the assignment was an effective learning strategy. 82% felt the assignment engaged them on a personal level, and 8% (n=4) felt they were not engaged, and 10% (n=5) said they were not sure either way. 94% of students stated the assignment was 'good' or 'excellent' in regards to understanding therapeutic communications (Emmanuel, et al., 2010).

Students' qualitative comments from the end-of-course assessment indicated that the assignment engaged them and it was interesting. Emmanuel, et al. failed to provide a description of how the qualitative analysis was performed. Teachers reported that some students had difficulty engaging in an artistic assignment and perceived they did not have artistic ability; however, most students were engaged in learning and some students dropped out of the course because of other commitments. Emmanuel, et al. also noted that the assignment acted as a source of reflection for students and it helped students to link learning concepts with creative assessment strategies and deepen learning. Their study was vague about how data was analyzed and they failed to provide any reliability or validity reports about the SOLO tool. Neither demographics about students were included nor was clarity about how assignments were graded very clear in Emmanuel, et al.'s study.

Jensen and Curtis (2008) explored how students in a psychosocial nursing class experienced the use of art, music, film, and literature infused into their course. A descriptive qualitative design was used to explore student experiences. Twenty-three students enrolled in the course agreed to participate. Students filled out questionnaires that were analyzed by the researchers. The researchers kept subjectivity journal files to monitor their own subjective responses and beliefs and kept observational data records. Field observations and questionnaires were analyzed. Interviews were also conducted, analyzed and coded. Five themes emerged through analysis: an interesting hook, a deeper level of understanding, development of self-understanding, and developing empathy. Students also noted that an increase in cultural awareness demonstrated a deeper understanding of mental illness (Jensen & Curtis, 2008).

VTS has a long history of use in elementary education but limited evidence was available for its use in nursing education. Further, how this experience may influence nurses' care of patients has not been examined. This current study provided an insight into the meaning VTS had for students and what meaning it had for students as they cared for patients in a clinical setting. The experiences also provided nursing students with an opportunity to work with medical students in a neutral environment (the art museum). Meaning for that experience was also explored, which provided insights into interdisciplinary educational work for healthcare teams.

### **Relevance of this Study to Nursing**

Nursing education has explored the use of visual arts as ways to explore the meaning of nursing to students, help them identify with the role of nursing, and reduce stress. It has also been shown to increase observational skills, which in turn can help the

nurse identify subtle nuances, which can guide nursing care. As health care teams are pushed to care more quickly for more complex patients, nurse educators are called to explore teaching methods that allow students to work together in groups and practice effective communications around their observations. VTS has not been well studied in nursing, but in elementary education it has been found to increase critical thinking and communication skills (Housen, 2001; Housen & Yenawine, 2002). As healthcare becomes more complex, teamwork and communication are critical for improving patient outcomes. VTS offers a teaching technique that can be used with students from various professions. The technique needs a more thorough understanding; meanwhile, in-depth student interviews can provide nurse educators with information about this innovative teaching strategy.

### **Background of this Student Researcher**

I never considered nursing as a career until I was 18 years old and had the opportunity to watch the birth of a baby. How that nurse interacted with the mother was life-changing to me. I was completely mystified by the experience and it changed the trajectory of my life. I had always wanted to be an artist, but knew it would not be a way to make money, and doubted if I had enough talent to do it. I focused on nursing coursework, but constantly fed my love of visual art through painting classes, art fairs, books about the Masters, and art museums. Every trip I went on, the art museum was always on my list of adventures. Something about looking at art awakened a sense of discovery, wonder, and attention that I found comforting and peaceful.

I remember taking an art appreciation course in college and, as a painting was shown on the slide projector, I would automatically judge whether I liked it or not. As



the professor spoke about the color used, the symbolism of the objects, the historical and political context of the theme, and the composition, the art would come alive. So much more was there than I had initially judged it to be. This discovery was fascinating to me and I wanted to know more. As I worked my way in nursing from labor and delivery to private scrub nurse for an obstetrician, to a Women's Health Nurse Practitioner, master's degree, and finally teacher of nursing, I always found my way to art museums.

Once, at a lecture by Daniel Pink about how the mind works, he mentioned a study that was done at a medical school using art to increase observational skills. I immediately emailed Mr. Pink and he responded right away. I read the study and it mentioned VTS as a teaching method in a humanities course. A patient who worked at the art museum locally told me that they did VTS experiences and had trained facilitators. I was intrigued! I asked a group of 30 students during a summer course if they would like to experience this technique, and all but 5 volunteered to try it. We met at the art museum and went with a trained VTS facilitator to discuss three works of art. The conversations were fascinating! The students discussed more in that one-hour session than we had discussed during the entire summer course! They shared nursing experiences, talked about other aspects of their lives, and listened attentively to each other. They related how they discussed the art to how we discuss patients and emphasized how important it was for us to listen to each other. I knew I had found something worth exploring and was determined to find out more. The object of this research was to explore in depth what this teaching technique means for students and how it affected their care of patients. VTS has been offered in all of my courses to students,

and they continually ask for more experiences with it, prompting my research in this teaching method.

### **Summary**

This chapter provided a summary of research in education using VTS. Critical thinking, aesthetic development, and communications increased after the use of VTS in an elementary education curriculum. Only three studies exist that examine the use of VTS in medical education, and only one of those studies included nursing students. Several studies explored the use of visual arts in nursing education, but none of them used VTS. As nurse educators attempt to develop innovative teaching strategies, VTS offers the potential to enhance group learning and improve both observational and communication skills. Currently, no studies exist that explore what meaning VTS has for nursing students or how it might influence the care they provide to patients. This study sought to explore the meaning VTS has for nursing students and to expand the knowledge about VTS in nursing education. It also sought to explore how VTS may influence observational and communication skills as students work with patients.

## CHAPTER III

### METHOD OF INQUIRY: GENERAL

#### **Introduction**

This chapter describes a qualitative research method called Heideggerian hermeneutics, the research methodology guiding this study. It will also provide a rationale for choosing this method as a way to broaden the understanding of VTS as experienced by nursing students and how it influences the care they give to patients. A description of data analysis and methodological rigor will be explored, as well as definitions of key terms important to this study.

#### **Description of Research Method**

Interpretive phenomenological studies are used to explore the meaning of a phenomenon and help to the reader to understand the experience of the participants (Christ & Tanner, 2003). Phenomenological research methodologies are based on the philosophical beliefs of Edmond Husserl (1859-1939) and Martin Heidegger (1889-1976). It is important to distinguish between the two and provide rationale for choosing Heideggerian hermeneutics. Husserl was the founder of phenomenology and mentored Martin Heidegger (Draucker, 1999). Husserl initially began a quest for a philosophical foundation of logic, but later evolved his philosophy into that of a logical structure of consciousness (Walters, 1995). Husserl believed phenomenology should be concerned with 'essences,' which he described as a fact or entity that did not change over time, was concerned with an understanding of a fundamental nature of reality, and was universal. A descriptive psychology was how Husserl envisioned his phenomenology, with the use of essences of consciousness and a split between mind and body (Koch, 1995). Husserl also

described a process of ‘bracketing’ as a way to identify a researcher’s presuppositions about the world. Bracketing came out of Husserl’s mathematical background, and was considered a strategy for the researcher to place a part of the mathematical equation apart to be treated differently than the rest of the equation (Walters, 1995). Husserl’s phenomenology was based on description of an object of inquiry. An analysis of subject and object, similar to Cartesian principles of objectivity, were part of Husserl’s phenomenological approach. Husserl’s phenomenology was rooted in the Cartesian thought that thinks of a person’s relationship to the world as subjects knowing objects (Walters, 1995). Heidegger believed that knowledge could not be independent of interpretation and could not be evaluated by objective indices but those of convergence: the perspectives of the participant and researcher are merged into the interpretation (Draucker, 1999).

Edmund Husserl mentored Martin Heidegger and it was Husserl who taught him to use his own eyes and explore further his philosophical tenets, eventually leading him to develop his own independent philosophy (Harman, 2007). Heidegger was introduced to Husserl at the University of Freiburg in 1909. He received his doctorate in 1913 and began working as an assistant for Husserl in 1917. Eventually, Heidegger began to distance himself from Husserl, and in the early 1920’s, Heidegger joined the Nazi party as part of a strategy to advance his academic career. Husserl was Jewish and eventually was barred from the University of Freiburg. Heidegger began to separate his philosophical beliefs from Husserl’s phenomenology. These differences were evident in his writings and lectures as he advanced his academic career (Harman, 2007). An important separation in philosophical beliefs came when Heidegger used the word

“hermeneutic.” This word was based in a traditional sense of interpretation, based in a recovery of the past and a sense that one could not separate himself from his world.

Heidegger believed in a more interpretive philosophy, where Husserl based his philosophical beliefs in a logical, mathematical reduction as a way to describe the world. These differences would be the fundamental differences between descriptive and interpretive phenomenology, often called Heideggerian hermeneutics (Palmer, 1969).

Heidegger’s perspective on how one lives in the world was different than Husserl’s. Husserl believed that a description of how one lived in the world detached as subjects who lived in a world of objects. Husserl approached phenomenology with the idea that consciousness was a way of presenting transcendental subjectivity. He approached his philosophy from a mathematical viewpoint, with perceptions of rigor and empiricism (Palmer, 1969). Heidegger believed that one could not be extricated from his world; his world is part of his being and cannot be separated from him. He questioned how a subject-object relationship could adequately describe one’s relationship with the world and felt that subjective experience was the only way in which to view the world. One’s background is part of his world and is handed down as a way of understanding the world (Harman, 2007; Koch, 1995).

Heidegger often used a hammer to explain his theory of how one cannot be extricated from his world. One uses a hammer without thought or consciousness. He uses it for its abilities, not for the characteristics it holds. In this use of the hammer, one is not conscious of the thing until it no longer functions in its usual way. It is in the absence of thought about an object that Heidegger parallels his beliefs about phenomenon. Often, one does not comprehend or consider the ready-to-hand importance

or significance of something until it no longer works in the way one expects it to work. If the head falls off a hammer, it is then that the user recognizes the hammer and its significance, where before he just used it unconsciously. Heidegger also recognized that each person brings his own experiences to his life and that varies from person to person. The hammer can again be used as an example to clarify this concept. One person may use the hammer as a tool to hammer a nail into a piece of wood. Another person may use the hammer as a weapon. The hammer is the same with the same characteristics, but how one uses it depends on what one's *lifeworld* is and how he had previously experienced the hammer. One cannot separate one's self from his past experience and he brings this unconscious experience into his interaction with the hammer.

Heidegger believed that Husserl's tenet of bracketing could not suspend or separate one's beliefs from his interpretation or understanding of an event. Heidegger believed that one is already 'in the world' (Draucker, 1999, p. 361) and cannot be removed from the world, as he knows it. He emphasized understanding of the world more than Husserl's description of the world. Heideggerian tradition of research methodology is based on interpretation, or an increased understanding of the meaning of human experiences and practices (Draucker, 1999). This type of research seeks to uncover the meaning and what it means for the person to be in the world. The researcher is an active participant in the interpretive process and is engaged with this interpretation instead of being a passive recipient of knowledge. Hermeneutical phenomenology is based on "data generated by the participant is fused with the experience of the researcher and placed in context" (Koch, 1996, p. 176).

Heideggerian hermeneutics fits well with educational nursing research. Hermeneutical philosophy is based upon the science of interpreting human meaning and experience (Gadamer, 1976). This research methodology and philosophy are both based on the lived experiences of the participants (Lowes & Prowse, 2001). Benner et al (2010) call for educational reform in nursing that is student-centered. In her “Call for Radical Transformation” she argues that nurse educators must provide students with experiential learning that allows them to develop a sense of salience and reasoning. These educational experiences need to ensure that students are safe clinicians and will be lifelong learners. To ensure lifelong learning, educators must seek a deeper understanding of educational practices, not just about how to convey knowledge to students in the classroom (Benner, Sutphen, Leonard, & Day, 2010). VTS as a learning experience is student-centered teaching method that focuses on student responses and observations of art, not those of the teacher. Heidegger specifically addressed art as a pure form of self-understanding and meaning for the viewer (Thomson, 2011). For Heidegger, art offered the perfect opportunity to examine the essence of meaning, both from the viewpoint of the artist and the viewer (Jaeger, 1958). VTS allows participants to discuss what is going on in a painting, but also requires visual evidence to support this. Exploring meaning of the experience with students can provide insight into their experience and provide insight into learning. In his seminal work, *Being and Time*, Heidegger (1962), completely redefined phenomenology. In this book, he shifted his philosophical beliefs from epistemology to ontology, through the study of ordinary everyday existence. He described *dasein*, the concept of being. “*Dasein* always understands itself in terms of its existence, in terms of its possibility to be itself or not to

be itself' (Heidegger, 1962, p. 11). For him, hermeneutics begins as an interpretation of the structure in which *dasien* dwells in the everyday (Walters, 1995). One can only interpret and attach meaning to something according to his own lived experience and cannot isolate or separate himself from his life. The research methodology of Heideggerian hermeneutics is based on what it means to be a person and explores relationships between human thought and existence.

Heidegger specifically wrote about art in his 1935 essay titled 'the Origin of the Work of Art' (Young, 2001). At that time he dedicated himself to the philosophical engagement of modern artists such as le Corbusier, Stravinsky, Klee, Cezanne, and Georges Braque. He wrote and lectured extensively about the connections one makes with art, and the response to art as an "aestheticizing connoisseurship of art" and a way to take delight 'in the work's formal aspects, its qualities and charms" (Young, 2001, p. 10). Heidegger said that art reveals more about one's self and begins a dialogue about how one is with the world. He argued that art is a way to seek understanding (as opposed to seek an explanation) through a circular process of back and forth from part to whole (Baumann, 1999). For Heidegger, art was a way to provide clues about the meaning of being and can reveal, that which is not always evident. This process could provide a deeper understanding about how one is with the world through one's interpretation of art.

Heidegger specifically addressed the use of art in his famous essay, *The Origin of the Work of Art* (1937; Young, 2001). In this essay, he spoke of art as a springboard for creating meaning and speaking the truth, a way for a community to share understanding. Art, according to Heidegger, is more than a representation of something...it considers the context of the world in which both the artist and the viewer live. Art helps the viewer to



consider the meaning of an object that may be taken for granted, yet is a part of one's everyday existence (Thomson, 2011).

*A Pair of Shoes* was painted in 1885 by Vincent van Gogh. It was discussed extensively by Heidegger and is often used as a reference when discussing his thoughts about art. In this painting, a pair of work boots sits in an empty space. Heidegger was fascinated by what meaning the boots have for the viewer, and, as importantly, what meaning the viewer gives to the space around the boots (Young, 2001). This is analogous for the philosophy of hermeneutics, as one attempts to uncover both the meaning of a phenomenon and uncover what a participant does not say or include in his interpretations. Heidegger obsessed about what the equipment of being was in the boots and that, therein, the truth could be found. "The farming woman wears her shoes in the field. Only here are they what they are. They are all the more genuinely so, the less the farming woman at work thinks about the shoes, or senses them at all, or is even aware of them" (Thomson, 2011, p. 82). Interpretive phenomenology attempts to capture the experience and give it meaning through the interpretation of the researcher's transcripts.

Heidegger considered that human beings were not separate from objects they encounter. He called this inability to separate subject and object *being-in-the world*. He saw that human beings could be in the world in a variety of ways, but the most significant was in inquiring and wondering about one's own existence in the world. He called this state *Dasein*, which he considered living authentically. This gave one access to awareness of his own being (Benner, 1994; Heidegger, 1962).

A basic assumption of Heideggerian hermeneutics is that human lives are situated within relationships and commitments that give meaning to their lives. One has certain

ways of seeing and responding in certain situations that are not always available to that individual (Benner, 1994). Another assumption is that humans live and are engaged in the world in what Heidegger calls the ready-to-hand mode of existence where one does not think about the basic way he lives. He engages in practical activities every day that do not necessarily reach his consciousness. These everyday occurrences are commonplace, taken for granted, and difficult to describe (Heidegger, 1962). Getting dressed, brushing teeth, driving to work are all practical ways that humans are engaged every day without any conscious thought and are examples of ready-to-hand modes of existence.

Another assumption about how humans engage in the world is that their worlds are set up and bound by what matters to them. These concerns determine how one enters and acts in a given situation. What matters to someone sets up their interest and involvement in a given situation and determines what they see or observe. Concerns that cannot be expressed because they are unconscious may show up in actions and responses of individuals and noticed by an observer (Benner, 1994). Identifying these unconscious actions can give great insight into meaning through Heideggerian hermeneutical phenomenology.

*Spatiality* in the life world is that things are remote or close. Geometric distances do not tell the truth about spatiality without a context (Benner, 1994). A frequently used example of spatiality is the concept of ten feet. Ten feet is a measurement that is standard, scientific, and predictable. But ten feet is quite a distance to a patient who was just fitted with a prosthetic leg and is learning to walk for the first time. Ten feet is close for someone who is standing ten feet from a train traveling at sixty miles an hour. Benner

(1994) uses the measurement of ten feet in relation to vertical versus horizontal distance. Climbing ten feet is more difficult than walking ten feet and it is this context that is paramount in interpretive phenomenology. It is the context in which the human is engaged with distance that is defined as spatiality. The unit needs to have context to have meaning, and that is what interpretive phenomenology attempts to discover.

### **Rationale for Choosing Method**

Heideggerian hermeneutics seeks to capture the everyday habits, skills, and narratives of those who are experiencing them and capture everyday habits, both seen and unseen. Through narrative interpretation and observation, meaningful contexts are discovered. This philosophy seeks to understand rather than explain and the settings for research are natural as opposed to controlled. The knowledge gained in hermeneutics is embedded in the lived experiences of the participants and uncovered through interpretive analysis (Benner, 1994; Crist & Tanner, 2003).

Rationale for using Heideggerian hermeneutics is that it fosters the skill of listening to the participant in the context or meaning of their language and lived experiences (Annells, 1996). It also broadens the understanding of shared meanings and illustrates uniqueness and diversity, specifically in nursing education, when evocative narratives portray the voices of students and their everyday world.

Understanding the aesthetic role of art for a person can reveal meanings and understandings. Reflecting on art can answer questions about what truth is for the viewer (Young, 2001). Heidegger believed that “artwork is something which opens up the world” (Young, 2001, p. 19). As VTS uses art to guide discussions in a proscribed manner by a facilitator, the philosophy and methodology of Heideggerian hermeneutics

aligns well to guide this study. The experience of students is important in the field of nursing education and interpretive phenomenology is a research methodology that explores the experiences, habits and skills of students (Benner, 1994). Instead of predicting outcomes related to theoretical propositions, this branch of research seeks to understand the experience of the participants through their narratives and actions. This study seeks to understand what meaning students give to their experiences with VTS and how it affects their care of patients. It is an appropriate methodology because Heideggerian hermeneutics seeks to merge the perspectives of the participants, the researcher, and other sources of data to present a rich analysis of the interpretation. In this research study, VTS experiences are explored to develop a rich understanding of this experience and the meaning it has for students.

VTS has only been studied once with nursing students. However, VTS in nursing students has not been examined in terms of how students use it (if at all) and how they apply it to their nursing care. An interpretive phenomenological approach to studying this teaching method will provide nurse educators with a deep understanding of how students interpret this learning experience and what meaning it has for them. It opens up an exploration of VTS and the meaning it has for students. Heideggerian hermeneutics is an appropriate use of philosophy and methodology, as it explores human concerns and relations of students and explores an understanding of what meaning this teaching method (VTS) holds for students. This methodology is focused on understanding the life world, habits, practices, and experiential learning (Benner, 1994) of students who participate in this learning experience and can provide a richer understanding of this teaching method for nurse educators. By exploring the meaning of VTS for students,

nurse educators can have a deeper understanding of this teaching technique and may potentially modify and explore future teaching using this method.

Nursing research frequently uses hermeneutics to underpin research methodologies as a way to understand and grasp the meaning of a phenomenon. In order to develop a more complete understanding, Heideggerian hermeneutics is used to reveal and illustrate what significance a phenomenon has for a participant (Geanellos, 1998). The goal of hermeneutical research is to understand the practices, skills and experiences and find commonalities in meanings (Benner, 1994). This access to everyday lived experience offers nurse educators the opportunity to develop a more complete understanding of the lived experiences of nursing students who have experienced VTS. This study has the potential to explain and describe how and what meaning the phenomenon of VTS holds for participants. Because no previous studies have examined or explored with nursing students about VTS and the meaning it holds, this research will attempt to provide a more thorough understanding of this teaching method.

### **Method of Data Analysis**

How one analyzes data in a hermeneutic study varies greatly, according to how one translates Heidegger's original texts. Although Heidegger did not propose a specific methodology for analysis, several authors have proposed specific steps in interpretive data analysis (Fleming, Gaidys, & Robb, 2003).

An assumption in Heideggerian hermeneutics is that the researcher already has a preliminary understanding of the phenomenon being studied. Because one is in the world and is asking the research question, a preunderstanding exists for the researcher. This

preunderstanding is called a *forestructure* of understanding by Heidegger (Benner, 1994).

Benner described three aspects of *forestructure*:

1. *Fore-having*: the taken-for-granted sense of relations that constitutes the phenomenon under investigation
2. *Fore-sight*: the conceptual orientation to the phenomenon and how one orients one's way into the hermeneutic circle to gain access to the analysis procedures
3. *Fore-conception*: the researcher's preliminary sense of the question and what the answer might be (Benner, 1994, p. 57).

In Heideggerian hermeneutics, the primary source of knowledge comes from the transcribed texts of interviews with participants. Every interview is influenced by the interviewer's questions and the participant's answer. The interview is co-created by researcher and participant and this concept is reflected in the data. The interviewer and the participant both participate in the interview, which leads to a deeper understanding of the phenomenon and provides a more thorough understanding. The researcher in Heideggerian hermeneutics provides a significant contribution to the research as s/he can provide insights and contributions through interpretation of the interviews, acting as a co-creator of the research (Lowes & Prowse, 2001).

In-depth interviews are done face to face with participants. Participants are free to share accounts that had meaning for them in regards to VTS and their experiences with VTS. Prompts such as "Can you give me a for-instance?" can be asked and interviews will be recorded via audiotape (Ironside, 2006). Only one question needs to be asked initially in a phenomenological interview based on the premise that the interview will progress and data will be generated by the participant without further guidance (Lowes &

Prowse, 2001). Observational notes, diaries, and interviews all are used in thematic analysis (Benner, 1994). Physical expressions, gestures, and field notes can also be used in this analysis process (Crist & Tanner, 2003).

Initially, the interview is transcribed word for word by a transcriptionist, and then read through by the researcher several times. The transcripts are compared to the recorded interviews to assure accuracy and integrity of the narratives. Central concerns are documented as well as themes that emerge as the researcher reads and re-reads transcripts. Each interview is read from a perspective of an interpretive theme that was previously identified. All whole cases are then reread and identification of general categories or themes is formed (Benner, 1994).

This student researcher began to write and rewrite an interpretation of initial interviews. These interpretive writings are usually three-to-five page summaries of central concerns or themes identified in the transcripts of participants. The event can only be interpreted after it is fixed as text (Benner, 1994). The interpretive process is one where the investigator writes and rewrites an interpretation of the text, recognizing new interpretations that may develop as contextual aspects are noticed. Salient excerpts are also included in the summaries. The summaries are then presented to a research team for further analysis (Crist & Tanner, 2003).

Heideggerian hermeneutics can involve the use of a team to analyze data (Benner, 1994; Crist & Tanner, 2003; Fleming et al., 2003). Teams of three to four members can be used to expand interpretations. Gadamer (1976) believed that dialogue about interpretations provided a more thorough understanding of the interpretive process and provided an outlet for interpretations and misunderstandings to be revealed through teams

(Geanellos, 1998). Debate, brainstorming, and discussions provide insight into interpretations. This team usually consists of an expert in Heideggerian hermeneutics and others who are involved in the content area of inquiry (Crist & Tanner, 2003).

The research team acknowledges any assumptions that could influence their interpretation of the phenomenon of interest, although the team acknowledges that these assumptions do not provide objectivity. Heidegger believed no one could be completely objective and everyone brings their life world to interpretation of events (Harman, 2007). Preconceptions of the researcher are made transparent and are a distinctive feature of Heideggerian hermeneutics. Documentation of preconceptions and the possible effects of these on the interview structure can be documented by the researcher in journals that can inform the research analysis. These can later be reflected on as analysis proceeds (Lowe & Prowse, 2001).

The interpretive team engages in discussions about the written interpretation by the primary researcher, constantly going back and forth between the whole of the interpretation and the parts. The *hermeneutic circle* is the back and forth movement of exploring and uncovering meanings. The hermeneutic circle is a metaphor for explaining the movement between the whole and the parts of a text as the research team seeks to understand and interpret (Annels, 1996). Transcripts from the first few participants are discussed among the team and critical evaluation can be given to the researcher that can further be explored in subsequent interviews. A plurality of interpretations can be developed, but the team must discuss these and attempt to narrow them down as a way to develop a deeper interpretation of the phenomenon (Benner, 1994). Minutes can be taken



from each team meeting to summarize central concerns and guide future interviews and discussions, and can also serve as part of an audit trail (Crist & Tanner, 2003).

As the team meets and analysis of other interview transcripts occur, central concerns and meanings are identified. During the second part of analysis, the primary researcher will ask team members to review the written summaries with central concerns. In-depth interpretations, excerpts and summaries are discussed and developed. It is not the emergence of a theme that produces an 'ah-ha' moment, but the understanding that is reached as the team reaches consensus about the experience (Smythe et al., 2008).

Transcripts are only reviewed if it would assist in clarifying interpretations. Salient excerpts that characterize specific meanings are identified across transcripts from various participants. Paradigm cases are stories that exemplify particular concerns or themes. These stories are usually long and give detail to the reader about the concern, practice, or experience (Crist & Tanner, 2003). Paradigm cases usually engage the reader in the interpretation and offer an account that illuminates the interpretation (Benner, 1994). These paradigm cases are discussed and included in the final interpretations in Heideggerian hermeneutics.

In Heideggerian hermeneutics, the literature review is typically done as analysis of transcripts occurs (Smythe & Spence, 2012). In this philosophy, the purpose of the literature review was not to show gaps in the literature, or as a means to argue for on-going research. The purpose of the literature review was to provoke thought. Literature in hermeneutics includes philosophical texts, poetry, fiction, and other venues that provoke thought and engage the reader of the research. This student researcher was asked to immerse herself in the readings through thinking, talking, writing, and dwelling

on the findings. These findings in the literature review through analysis helped this student researcher to have a deeper understanding of the texts and convey that information to the reader.

Later, as themes became more evident, this student researcher began to show connections between and across stories from various participants. Final interviews were discussed and excerpts and interpretive summaries were finalized. One tenet of Heideggerian hermeneutics is that complete understanding is never possible. Gadamer noted, "Interpretation is always on the way and thus definitive interpretation is not a possibility" (in Annels, 1996, p. 707.)

Dissemination of research findings is the final phase of the hermeneutic data analysis. In the final phase of interpretation, the team can review notes from previous meetings. Because interpretation is a continuous process, the reader makes final interpretations and evaluates whether one's own concerns have been answered (Crist & Tanner, 2003). An assumption of Heideggerian hermeneutics is that all interpretations are held open. Data analysis is always open to further interpretation and findings are always considered tentative (Ironsides, 2006)

### **Methodological Rigor**

Rigor is referred to in hermeneutics as trustworthiness and can be attained in three ways. Retrospective and interpretive work through writing and rewriting helps to stay true to the original text and reveal meaning as does working with the research team to clarify meaning. Spending time with participants and becoming involved with them reveals everyday situatedness of the participants. Always returning to the interpretive summaries and rereading them provided reentry into their world. Identification of themes

was then threaded throughout interviews and exemplars were identified, sometimes using direct quotes from the transcripts (Draper, 1996). Constantly going back to the original text and committing to reinterpretation helps to ensure trustworthiness in hermeneutics methodology (Benner, 1994).

Heideggerian hermeneutic phenomenology does not require bracketing like descriptive phenomenology, but instead, recognizes that each member of the research team would acknowledge any assumptions (or preconceptions). These members have their own life experiences that are part of their own life world and will influence their interpretations (Crist & Tanner, 2003). This can be done by journaling or by discussions held by team members during discussions about interpretations. Also writing down team members' preconceptions about the phenomenon of interest can make clear to the team how members view the phenomenon and make clear their assumptions about the areas of discussion. Keeping track of team meetings and central concerns is a way to keep an audit trail to ensure trustworthiness in hermeneutics (Fleming et al., 2003).

Analytical stages of research are dependent on the quality of the data that is generated. It is important that the researcher detail the philosophical underpinnings of the research methodology and distinguish which form of phenomenology he is utilizing in order to stay true to the research philosophy (Draucker, 1999). Heideggerian hermeneutics emphasizes the human experiences of understanding and interpreting through interpretive summaries. Rather than predict outcomes or provide theory for generalization, hermeneutics attempts to interpret human meaning and experience. Nothing can be encountered without a reference to the background of the researcher's understanding, and this cannot be separated from the researcher. The researcher is the

interpreter and brings his “being in the world” into his interpretation (Lowes & Prowse, 2001, p. 474). The interviewer and respondent act together to create the interview and affect the responses of each other. “There is no escape at all from the fact that the research interaction is a genuine human encounter, and that nothing can be done to stop the behavior of the researcher being meaningfully communicative” (Ashworth, 1987, p. 18). Smythe, Ironside, Sims, Swenson, & Spence (2008) pointed out that the researcher is thinking as he interprets and this thinking is not a mechanistic process. This thinking during interpretation arises from the life he lives and that which is known and not known. Smythe et al. contended that as a result, no technique can be prescribed to dictate how to think or set aside the researcher’s own beliefs; one cannot bracket, as one would do in Husserlian phenomenology. At this point, the researcher must determine if the relational themes offer a clear example of the phenomenon (Parsons, 2010). If the themes offer a clear example of the phenomenon, the portion of data analysis is considered complete.

Being true to the meanings expressed by participants is accomplished by referring back to the original transcripts. Also, the researcher can contact the participants again to clarify or delve deeper into a topic to seek clarification (Draper, 1996). Gadamer (1976) also recommended returning to the text to clarify meaning and as a way to go back to the whole and compare parts. This back and forth method is part of what Gadamer referred to as the hermeneutic circle.

Rigor or trustworthiness can also be maintained in hermeneutics by giving examples from participant interviews. Writing and rewriting by the researcher in 3-5 page summaries is done and salient excerpts are brought forth to the research team. Exemplars are substitutions for operational definitions in interpretive research because

they allow one to demonstrate intent of the participant (Benner, 1994). Multiple exemplars can establish a region where the interpretation can occur. These exemplars usually portray the relationships and distinctions made during interpretation. The use of quotes directly from the transcripts is another way to showcase exemplars for interpretation. Paradigm cases are strong ,vibrant stories that give the reader an example of the theme and how the participant experienced the phenomenon (Crist & Tanner, 2003). All of these are methods for representing trustworthiness in a qualitative phenomenological study. Heideggerian hermeneutics recognizes that no research study is ever complete, and no reader can have a thorough understanding of a phenomenon, but when the researcher has determined that the relational themes, exemplars, and paradigm cases illustrate for the reader an understanding of the phenomenon, the researcher considers the research process complete. It is understood that more can always be learned about a phenomenon and often research is reopened at a later date to expand one's understanding (Parsons, 2010).

### **Concepts and Terms-Definitions of Terms Important to the Study**

*Heideggerian hermeneutics:* For the purposes of this study, the term applies to the investigation of the interpretive summaries of transcripts from students who experienced VTS.

*Dasein:* How one is in the world: being in the world.

*Lived experiences:* Based on hermeneutics, one cannot separate himself from all of his experiences and set those aside to be objective. They are part of any research approach he takes and cannot be separated from his interpretations or writings (Benner, 1994).

*Hermeneutic circle:* The hermeneutic circle is a metaphor used to explain the movement from parts to whole of a text as we attempt to understand and seek understanding. One is always in the hermeneutic circle, as one seeks to understand and attach meaning to life events and cannot be removed from it.

*Forestructure:* A preunderstanding of an interpretation or a preliminary understanding of the human action to be studied (Benner, 1994).

*Fore-conception:* The researcher's preliminary sense of the question and what the answer might be (Benner, 1994, p. 57).

*Fore-having:* One comes to a situation with a familiarity or a background from our world which makes interpretation possible

*Fore-sight:* We have a point of view based on our background and that is how we interpret

*Preconceptions:* We have some expectations about what we might interpret based upon our background (Benner, 1994, p. 72)

*Ready-to-hand:* A mode of engagement that occurs when equipment or practical activities occur without thought or problem. The user of a piece of equipment is unaware of the attributes of the object because he is absorbed in the use of it and no thought of the thing is given (Benner, 1994).

*Unready-to-hand:* A breakdown occurs that does not allow the equipment or the activity to occur as it would without thought. The equipment comes to the consciousness of the user because of its inability to be used properly (Benner, 1994).

*Present-to-hand:* Everyday activity stops and the person stands back and observes or reflects about the situation. The object now takes on characteristics, attributes and qualities (Benner, 1994).

*Nursing students:* These will include traditional students enrolled in an eight semester BSN program and accelerated students who are in an 18 month second degree BSN program at the same university.

*Research team:* Experts on Heideggerian hermeneutics and selected nurse educators with an interest in this branch of research methodology for nursing education purposes.

### **Summary**

In summary, this chapter provided rationale for the chosen research methodology, Heideggerian hermeneutics. A brief discussion about the method was provided as well. Trustworthiness of the data is important in order to make sure the meanings of participants is accurately conveyed. Additionally, details were provided that described how this procedure was achieved. Lastly, concepts and terms used in this study were defined.

## CHAPTER IV

### METHOD OF INQUIRY: APPLIED

#### **Introduction**

Discussion in this chapter centers on the implementation of this current study's methodology, its plan of execution, its procedures to obtain data, and its methods of data analysis. Also discussed are the methods used to recruit human subjects, choices for the locational settings, protection of human subjects, and interview protocols. Furthermore, a discussion is included about trustworthiness in qualitative data analysis as well as a list of this study's strengths and limitations

#### **Implementation**

Interpretive phenomenology, as described by Martin Heidegger, was used as the methodology guiding the study. Information about the sample, data collection, human subjects' protection, and steps for data analysis were included. It also provided information about methodological rigor and strengths and limitations of the study.

The importance of observational and communication skills is evident in the care nurses give patients. As the health care team provides more complex care, nurse educators are called to provide students with the opportunity to work in groups to develop these critical skills. VTS is a teaching method that has been studied and shown to improve students' abilities to communicate in primary education. Observational skills have also been improved in medical students using VTS. This current study sought to explore with BSN nursing students the meaning of VTS experiences. It explored how students found meaning with the use of VTS in the care they provided to their patients. The purpose of this study was to explore and expand an understanding of meaning that



students gave to these experiences. It explored this meaning as a teaching tool and as a tool for use in patient care by students.

### **Sample**

Because the goal of interpretive phenomenology is an understanding of the phenomenon, interviews were conducted with those who have experienced VTS previously. In this study, students who had already participated in one VTS experience were invited to participate in the research study. Sampling for meaning is the primary goal of interviews, not generalizability (Lowes & Prowse, 2001). Size of the sample was 8 participants, but sample size is not as significant in hermeneutics; rather, the quality of interviews and meanings bring the reader to an understanding of the phenomenon being investigated (Benner, 1994).

### **Recruitment.**

Nursing students (both traditional and accelerated) took an obstetrics course together taught by this student researcher. During the sixth semester obstetrics nursing course, all students (traditional and accelerated) were given the option of three homework assignments. One of those was a VTS experience at the local art museum using a trained VTS facilitator. This hour long VTS experience was attended by nursing students and, on occasion, medical students who were also invited to participate voluntarily.

After students finished with their sixth semester course with this student researcher, they were invited to participate in one more additional VTS experience and interviewed for research purposes. Students were either in their seventh or eighth semester of nursing school.

Students were invited to participate in the study via email through the school email system. A total of 47 students were invited to participate in the study in February, 2013. Twenty-eight responded back to the initial request. Of that number, 16 emailed back to decline and 10 agreed to participate on the days that VTS was offered. Two students who initially agreed to participate cancelled due to unspecified circumstances. Eight students actually participated and were interviewed for this study.

Two dates for a second VTS experience were selected based on student's class schedules and emailed to the eight students; they emailed back which day they could participate. Five participants came on February 15 and 3 participated on February 20<sup>th</sup>. Following this email exchange, participants were emailed a room number where each of them could meet this student researcher in the local art museum. The student researcher met individually with each participant before the VTS session and explained the procedures for informed consent and confidentiality (see Appendix A). Consents were signed and each participant chose a date and place for their interview according to their schedules.

The trained VTS facilitator met with this student researcher and student participants; then the first group was taken to view three pre-selected works of art (see Appendix B). These works of art were chosen by the facilitator and the student researcher a year before, based on rotations and exhibits that the art museum had already scheduled. This plan about the preselected art work was confirmed in November, 2012 and again in January 2013 by this student researcher with the VTS facilitator who was employed by the art museum. On the date of the second group VTS experience, the third work of art (see Appendix C) that the facilitator had taken the first group to view had

been taken removed. So the second group saw 2 of the 3 works of art that the first group had seen, but the third piece was different. The facilitator said the museum had changed the rotation of that work of art without her knowledge.

As an incentive for participation, students were offered a free membership to the local art museum. The art museum membership had a value of \$35 and was provided by this student researcher. Participants were given their membership card after the interviews were completed.

Each participant was scheduled to be interviewed at a time and place that was convenient to each of them. All participants asked to be interviewed at the school of nursing on days when they were on campus, since that was most convenient for them. All interviews were conducted from February 19 through March 8, 2013. One participant rescheduled her interview three times due to an exam and childcare issues. One student showed up on the wrong day, but the interview was performed on that day for her convenience. Interviews were conducted in a private room with a sign on the door that indicated a private, recorded meeting was taking place. This student researcher reviewed the informed consent with each participant and discussed the use of an audio recorder and an anonymous name to protect participants' privacy. Each participant was also instructed that the interview could be stopped at any point if they felt the need. All agreed to participate and audio recordings were obtained and saved under a pseudonym.

Each interview was scheduled to be about an hour. Guiding questions were "Tell me what meaning VTS had for you" and "Tell me how you have used VTS in your nursing". This student researcher also provided copies of the works of art that were discussed to help students remember their first VTS experience which had been the

previous semester. Six pictures in total were provided for review; three from fall of 2012 and three from February of 2013, the second VTS experience. A small digital audio recorder was used to tape each interview. Notes from interviews were taken by the student researcher and pseudonyms were given to each participant after their interviews. Recordings were filed under the pseudonyms to protect anonymity of participants. The student researcher transcribed each interview and transcriptions were filed under code names on a computer. Each interview was transcribed, and then listened to a second time to verify accuracy of the transcriptions.

No demographic information was collected during this current study, since it was not the intent of this research to generalize results to a larger audience. This interpretive phenomenological study explored the meaning of participants' experiences, not their demographics and attributes. Of the total participants, 2 were male, and 6 were female. One male participant was an accelerated student who had a previous degree. Seven participants were in the traditional 4-year BSN program. Participants shared characteristics about themselves during their interviews, but these were not reported as part of the final analysis because they were only taken within the context of their interviews and not meant to be generalizable.

### **Setting for Data Collection**

Students were given the option of being interviewed in a place of their choosing at the art museum when informed consent and interviews were scheduled. All eight students chose to be interviewed at the school of nursing on days when they were on campus for class. A quiet, private conference room was provided away from an area where students gather. The participant and this student researcher sat at a table next to

each other. A sign was posted outside of the door stating that a recorded interview was being conducted so that interruptions were avoided.

### **Human Subjects Consideration**

This research proposal was submitted to the University of Nevada, Las Vegas, Institutional Review Board (IRB) (see Appendix D) for approval before conducting any research. Because this research was conducted with nursing students at Indiana University, IRB (see Appendix E approval from Indiana University was also obtained. Respect for person, beneficence, and justice was paramount in conducting this research to ensure participant safety (Burns & Groves, 2009).

Human subject protection was ensured in a variety of ways. Burns and Groves (2009) cited safety of participants through respect for persons, beneficence, and justice. Qualitative research generates much more personal information about participants through in-depth interviews. Participants were informed about how this information would be protected through an informed consent.

The student researcher only recruited participants who had participated in VTS during her course in the students' sixth semester. No students who were currently in her course during the time of research were invited to participate so as to reduce any perceived power or coercion that the participant may have perceived by having the student researcher as an instructor. The principle of respect for person is addressed by the right to self-determination (Burns & Groves, 2009). Participation was voluntary, providing self-determination of participants. Consent to participate was provided as well as an explanation for participants that explained their freedom to withdraw from the study at any time at their request with no penalty.

Safety of the collected data is extremely important in research and those safety procedures were explained in the informed consent. Participants were interviewed and given a pseudonym to ensure confidentiality. Since excerpts and parts of transcripts were shared with a research team, each participant was informed about pseudonyms that were assigned to their transcripts as a way to maintain confidentiality (Burns & Groves, 2009). Participants were also informed about storage of audiotapes and written transcripts under pseudonyms. Interviews were audio taped and audiotapes were labeled with the participant's pseudonym. This student researcher transcribed all interviews and used pseudonyms to file transcripts on a code-protected computer. Consents were kept in a locked file cabinet in the researcher's dissertation committee chair's office on the UNLV campus as directed by the IRB. The consents will be kept for three years and only the researcher's chair has access to the locked file cabinet. Participants were informed of this during the informed consent part of the interview.

### **Data Collection Procedure**

Martin Heidegger was critical of the Cartesian, scientific procedures for describing the world and felt that this type of philosophy was disengaged from understanding of the world and, therefore, could not be broken down into rigid steps (Benner, 1994). He thought that reflection about a phenomenon held potential to uncover meaning for participants. Through interviews or conversations, a dialogue could present a narrative, which could then become a text from which to interpret. Therefore, hermeneutic studies would disclose what is at stake for a participant, his issues or concerns in his everyday life, and an understanding of these concerns or issues (Benner,

1994). In that revelation, interpretation and understanding is expanded about the phenomenon of interest.

After participants experienced a second VTS experience, they were contacted via email to set up interviews. Based on participant availability, an in-person, single interview was scheduled with the student researcher. The format for the interview was explained to the participant at the beginning of the interview and informed consent was obtained. The participant was informed that he could stop the interview at any time and request the tape recorder be turned off. The participant was informed of his or her freedom to quit the study at any time. The researcher explained that the purpose of the interview was for a doctoral study of this student researcher and that strict confidentiality would be maintained. It was also explained that each participant would be given a code name and audio tapes would be labeled with that pseudonym so that no one would know the names of participants except the student researcher. No one but the researcher had access to the participant's real name throughout data collection and analysis, as well as during dissemination of any research findings. As part of the informed consent, this student researcher explained that quotes from the interview may be used in the dissemination of the research, but only code names would be attributed to the quote and no one but this student researcher would have access to the participant's real name. This process was to ensure participant confidentiality.

Interview questions in qualitative interviews imply a mode of understanding in which participants are encouraged to describe their world, opinions, and thoughts in their own words (Draper, 1996). This process is not a formal list of questions to be answered by participants, but emphasizes a conversation between the participant and the student

researcher. This student researcher's task was to structure an encounter in a way that the participant could provide a story or example of his ideas and thoughts. This student researcher cannot extricate herself from the process, since she is a co- author of the text and should focus on the participant's meaning. Stem questions can be held in mind when conducting this interview with a strategy to explore meaning and go into depth about the phenomenon (Benner, 1994; Lowes & Prowse, 2001). Guiding questions were:

Tell me about your first VTS experience.

Tell me about your second VTS experience.

Tell me about a time when you have used VTS while caring for a patient

Another goal of hermeneutical research is to uncover contradictions that may reveal deeper meanings. Part of this process for the student researcher was to uncover assumptions and highlight conflicts that might have existed between rhetoric and reality (Draper, 1996). As this student researcher discussed interpretations with the research team later, the team provided insight about how to conduct subsequent interviews that might have uncovered more meaning (Lowes & Prowse, 2001). The research team also provided perspectives about themes and guided this student researcher through data analysis.

Engaged listening by this student researcher can lead to probes that clarify and aid in understanding. It was also important for this student researcher, when interviewing to obtain a larger contextual story of the participant, to assist with understanding about the experience. Hermeneutical phenomenology assumes that no precise story exists and multiple stories are shaped by the way in which the researcher guides the interview (Benner, 1994). Active listening by the researcher during the interview included



questions like “Let me see if I understand you correctly...” and then repeating the participant’s general comments. This procedure allowed for clarification and a more thorough understanding of meaning by the researcher (Benner, 1994).

The time from the VTS experience to the interview varied according to participant interviews. This student researcher prompted recall of the VTS experiences during the interview by reminding participants of the names of various works of art that were discussed and providing pictures to prompt their recollections of the conversations that occurred.

Throughout the interview, this student researcher took field notes and made pertinent observations to be used during analysis. These observations were used for individual participant responses as well as across interviews. Any reference to a participant in this current study was done so by using the participant’s assigned pseudonym so that confidentiality was maintained for all eight participants.

### **Analysis Procedure**

Although guiding principles can be used when interpreting hermeneutical research, the process is not linear and varies greatly (Benner, 1994; Draper, 1996; Lowes & Prowse, 2001; Smythe et al., 2008). The initial step was to read the transcribed text after the initial interview. This step allowed the student researcher to check for accuracy in the transcripts and listen to the tone and inflection of the participant (Crist & Tanner, 2003). The student researcher also wrote down initial perceptions for interpretation. It is recognized in hermeneutics that a text is open to a variety of interpretations that are fused by the intent of the participant and the interpretation of the reader (in this case, the student researcher). Validity of an interpretation is a function of its ability to be

reproduced, and in hermeneutics, this principle is considered meaningless, as one can never reproduce or understand the life world of another (neither the participant nor the researcher who is conducting the interpretation) (Draper, 1996).

Although hermeneutics does not defend the use of bracketing as a way to suspend one's beliefs about a phenomenon, bracketing is often suggested so that the researcher reveals his own preconceptions about the phenomenon of interest (Benner, 1994; Crist & Tanner, 2003; Draucker, 1999). Heidegger refers to forestructure as a way to link understanding with interpretation. Fleming et al. (2003) called forestructures pre-understandings and recommended the researcher identify them before research interpretation began. Hermeneutics is based on a philosophy that one cannot extricate himself from his world. In order to ask a question about a phenomenon, one must already have a pre-understanding or "forestructure" of how the question will be answered. A researcher's experiences are converged into the research process to paint a more thorough understanding of the process, so it is imperative that this experience can be revealed to the readers. A researcher's experience with this process will provide a richer, more robust understanding of the research endeavor when revealing the meanings of participants through interpretation (Draucker, 1999). This student researcher wrote in a journal about her thoughts regarding VTS and her past experiences with students who had participated. She also revealed her thoughts about how VTS might influence patient care for students and how it has influenced her care of patients and students. This journal (see Appendix F) is included in the final research report as a way to reveal more thoroughly the interpretive processes.(Dielkelmann, 1992).

The use of interpretive teams is commonly used in hermeneutic research analysis (Benner, 1994; Diekelmann, 1992; Geanellos, 1998). A research team may consist of three to six people who share a common interest in the phenomenon or the research methodology (Geanellos, 1998). Research teams can contribute to the bias control and group consensus about an interpretation. In hermeneutics, the bias control does not center on an effort to achieve objectivity, but is more focused on providing insights into a variety of meanings about interpretation. A research team may be involved in brainstorming or interpretation of meanings, but may also provide a researcher with an opportunity to discuss assumptions or preconceptions. The team may also provide valuable insight into lines of questioning for further interviews through constructive discussions about interview technique (Geanellos, 1998).

For the sake of this research endeavor, the research team included Pam Ironside, RN PhD and Sharon Sims, RN PhD as experts in interpretive phenomenology, specifically Heideggerian hermeneutics. The team helped this student researcher to see her own role in the research process and reduced psychological stress associated with analyzing data (Guba & Lincoln, 1989). Although no proscribed time for frequency of meetings with a research team existed, this student researcher met four times with the team during analysis of transcripts. Themes and interpretive summaries were sent via email using code names and discussed. Research team names were submitted on both UNLV and IU IRB protocols and approved (see Appendices D & E).

### **Methodological Rigor**

Qualitative research uses the word “trustworthiness” as opposed to rigor. Guba and Lincoln (1985) discussed the importance of identifying an audit trail, or clear

documentation of various steps and decisions made throughout the analysis of data. The audit trail (see Appendix F) was performed through documentation of research team meetings and discussions and is included in the final research findings.

The criterion of truthfulness can be maintained in a variety of ways. The meaning of the participants should be presented clearly. Use of direct quotes, clarification of comments, and follow-up questions are all ways to be true to the meaning of participants. It is up to the researcher to maintain contact with participants for clarification of meaning. Gadamer (1976) also recommended that the researcher always return to the text or transcripts to clarify meaning. This return to the text is another way to maintain trustworthiness of the data. Discussion of narratives with the research team is another way to immerse oneself with the data and remain true to the intent of the participants (Benner, 1994; Crist & Tanner, 2003). By faithfully representing the texts, objectivity (in a limited sense according to the philosophy of hermeneutics) can be maintained. A tenet of hermeneutics is to acknowledge that one can never fully engage in an objective point of view because one is always engaged in his own lifeworld from which he cannot extricate himself (Palmer, 1969). He is always attaching meaning and interpreting according to his own culture, language, and experience (Fleming et al., 2003).

Research teams are another way that bias control and group consensus can be established during analysis to help stay true to the meaning of participants. A positivist approach would attempt to achieve objectivity through distancing the researcher from the data analysis. Hermeneutic interpretation acknowledges the preunderstandings of the team and attempts to discuss these in the hermeneutic circle. The hermeneutic circle involves the team's analysis of the text from the large, whole text to the small, individual

meanings and words, then back to the whole (Gadamer, 1976). This back and forth movement of analysis is another way to establish trustworthiness in data analysis and be more representative of the meanings of the participants. Gadamer believed that dialogue and conversations helped to expand understandings and clear up flawed interpretations.

To maintain rigor or trustworthiness of data during analysis, this student researcher used quotes from the participants' transcripts. Exemplars and paradigm cases are ways for a researcher to present examples from the participant that provide the reader with clear examples of what the participant was attempting to reveal during the interview (Benner, 1994). These exemplars and paradigm cases are presented to the research team and included in final dissemination of research findings.

Diekelmann noted that distinguishing contradictions was a way to reveal inconsistencies and can serve as bias control (Fleming et al., 2003). As the research team met and discussed central concerns and themes that emerged, discussions about contradictions arose through cross-comparison of interviews. Those contradictions might have revealed inconsistencies and hidden meanings that could have shed more light on a theme and have illuminated key concepts that were originally missed. This method is another way to maintain rigor in hermeneutic phenomenology (Lowes & Prowse, 2001).

### **Strengths and Limitations**

**Strengths.** This study provided an understanding of the meaning of VTS for nursing students, since VTS and nursing have not been studied using hermeneutics previously. For nurse educators, this study sheds light on how educational innovations are used by students and how they perceive meaning. This current study explored how nursing students used this VTS method in their care with patients, either during clinical

educational experiences or during their work as a nursing student. How students used VTS could provide nurse educators with insight into a teaching method that might be implemented in future educational experiences.

This current study was novel in that it sought to understand a learning experience (VTS) from the viewpoint of the student, bearing in mind that these students had a context in which no one else could provide insight into their world as well as they could. Respect for individual meaning was given and an attempt to expand upon nursing educational methods was accomplished through a Heideggerian hermeneutical research philosophy.

Feasibility was a strength for this study because this student researcher had access to seventh and eighth semester students who had already undergone one VTS experience during a sixth semester course. Interviews were completed and transcribed during the spring of 2013 and data analysis began as soon as the first interview was transcribed. Another strength was the accessibility to experts in Heideggerian hermeneutics since the research team members were on the same faculty as this student researcher.

**Limitations.** This student researcher was aware of her own limitations in being a new researcher and acknowledged this issue as a limitation of this research project. Another limitation was that this student researcher had preconceptions about the phenomenon of VTS and acknowledged those in a journaling process during data collection and analysis. She also recognized that those preconceptions were part of her lifeworld and influenced how she interpreted transcripts. This process is part of hermeneutical phenomenology.

Another limitation in this study was that medical students were not available to participate in both VTS experiences. An attempt to use the same VTS facilitator was made during the sixth semester VTS experiences, but unforeseen illness and limited availability for student experiences made it impossible to use the same facilitator for each group of students. This student researcher arranged with the art museum facilitators to pick consistent works of art; however, regardless of careful planning, one exhibit, Ken and Barbie, had been removed before the second VTS group participated in their second experience.

### **Summary**

This chapter provided information in regards to the sample, data collection, and human subject considerations. Steps for data analysis were reviewed as well as specifics about how to maintain rigor or “trustworthiness” for this Heideggerian hermeneutical research proposal. Strengths and limitations were discussed and will further be discussed in later chapters.

## Chapter V

### RESULTS

The purpose of this study was to investigate the meaning of Visual Thinking Strategies (VTS) for nursing students. This study also explored how students used VTS in their care of patients or in their worlds. This study has provided a context for nurse educators about how students engaged in a unique learning experience and applied it to their nursing care of patients. This study also provided insight into the learning environment in which we teach and how it has affected students.

An introduction about the participants and how interviews were conducted was provided as well as details about the VTS experiences and the artwork that students viewed. The guiding questions for the interviews were “Tell me about what meaning VTS has for you” and “Tell me about how you use VTS in your care of patients.” These questions attempted to uncover aspects and components of nursing education that nurse educators can use to expand their understanding of teaching and the use of VTS in nursing education.

The viewpoint of the researcher as an educator will also be discussed in the last section of the results chapter. Student voices are presented and linked to educational principles and philosophies.

#### **The Participants and Interviews**

A purposive sample was obtained to collect and analyze information from students in a baccalaureate nursing program. Students who took an obstetrics course in their sixth semester of an 8-semester BSN nursing program were offered three options for a homework assignment. One of those options was to participate in a VTS experience.



Students who participated received points during that sixth semester for completion of the homework assignment, which was attending the VTS hour long experience at a local art museum. Students who participated in VTS were recruited via email to participate in the research study the following semester. A total of 47 students were invited to participate in the study in February of 2013. Twenty-eight responded back to the initial request. Of that number, 16 declined and 10 agreed to participate on the days that VTS was offered. Two students who initially agreed to participate cancelled due to unspecified circumstances. Eight students actually participated and were interviewed for this study.

**Participants.** Although no demographics were collected as part of this research, participants revealed characteristics about themselves through their interviews. A brief description of participants is provided for the reader. All names used in this research endeavor are pseudonyms assigned to participants to protect their anonymity.

Table 1. Participant Table Using Pseudonyms

Participant Pseudonym	Traditional or Accelerated Student	Miscellaneous Info Revealed during Interview
Melissa	Traditional	Degree in speech and hearing
Penelope	Traditional	Described herself as “older” student
Felicia	Traditional	Prior degree in chemistry
Oliver	Traditional	
Natalie	Traditional	Single parent
Christine	Traditional	
Ben	Accelerated	Two small children, prior degree in chemistry
Debbie	Traditional	

### Method of Data Analysis and Process

**Rigor.** Trustworthiness in Heideggerian hermeneutics is established by spending time with participants and validating what they mean during the interview process

(Benner, 1994; Draper, 1996). Several times during each interview, this student researcher repeated back what the participant said to allow for clarification. Going back to the original transcripts is a way to stay true to meaning and provide trustworthiness (Gadamer, 1976) and this was done several times, both through transcription and in writing interpretive summaries. Member checking was not conducted as Heideggerian hermeneutics does not require it (Ashworth, 1987).

Although this student researcher recognizes that she cannot extricate herself from her life world, journaling is a way to make clear any preconceived notions about what findings would reveal. This process also provided an audit trail that can guide a reader as to how data was collected and analyzed. Journals were kept throughout the process including data analysis. She also wrote after each meeting with the research team to help identify problems and themes that were emerging during analysis. These journal entries and summaries of meetings with the research team became this student researcher's audit trail (see Appendix F).

Heideggerian hermeneutical research methodology is a nonlinear process that often is individual and fluid (Smythe et al., 2008). After interviews were completed, transcribed and checked for accuracy, interpretive summaries were written for each of the eight interviews. Exemplars and paradigm cases were chosen from transcripts to accurately describe and provide examples of themes. These interpretive summaries were then compared across texts from each summary and reviewed by members of the research team.

## Results of Themes in Visual Thinking Strategies

Two main themes emerged from the data and will be discussed. Exemplars and paradigm cases are presented as direct connections to participants' meanings of the themes identified.

**Theme 1. Feeling safe in learning.** The issue of safety in nursing education emerged in participant interviews in a myriad of ways. When asking participants why they chose VTS or what they liked about this experience, they often noted that it was a safe way to learn and that no risk was associated with it. Natalie liked the idea of this assignment. She stated she was tired of writing papers and getting grades and just having an experience would be a break from the normal scrutiny of nursing school. Not being damaged by feedback associated with this activity was also noted by several participants. These issues of feeling safe became more evident as participants were asked about times they felt safe to ask questions or gain more knowledge and times they did not feel safe during nursing school. Subthemes were identified across transcripts that lend themselves to the notion of safety in education. When asking the question, "Tell me about what meaning VTS has for you," participants often responded with an anecdote about safety and fun in learning.

Participants often responded to questions about why they chose this learning activity with discussion about the physical place of the art museum. Several noted they had been to the art museum before and found it peaceful and relaxing. Ben said he took his children there regularly and associated it with past fun times he shared with them. Others had never been there but had always wanted to go. When asked about the reasons they found it relaxing, they discussed a variety of attributes of the museum. These

students felt that the relaxed atmosphere contributed to their ability to participate and learn. They spoke of no “expectations or grades” and no judgment, allowing them to explore more openly, without the worry of “making a mistake” or “giving the wrong answer.”

Melissa spoke specifically about the environment of the museum and why she found it so relaxing.

I think just the minimalism of art museums in general. And there’s just no, it’s like quiet and there’s not a lot of...obviously there’s visual stimulation but there’s not a lot of noise or huge bright lights like the hospital. And just the fact that there are no demands on you. Like you’re allowed to just kind of perceive things as you do, especially as arts that are imperfect and I feel like with medicine there’s obviously, out of necessity, we try to be very precise and not make any mistakes.

For Melissa, the experience at the art museum did not make any demands on her and her interpretations were not life threatening or high stakes like she often found in her work as a student nurse. If she made a mistake in nursing, a patient would be harmed. If she made a wrong impression about art, no one would be harmed.

Felicia also found the place of the museum to be relaxing and non-traditional, which is why she was drawn to this experience. She noted that the experience was a “breath of fresh air from class!” She also talked about the beauty of the artwork and the gardens that surround the building. She went into detail about a specific work of art and how pretty it was. “I like how they put it in front of the window; the light bounced beautifully off of it and it was just perfect!” For her, she felt freer to explore her observations in the relaxed environment without the stress or scrutiny of others.

Felicia continued to talk about how the nursing school was not safe and had real concerns about the safety of students physically in clinical settings and school. She

discussed in great detail a situation she had heard about from other younger nursing students that occurred in a local emergency room where they were doing clinical. She said that a homeless patient was beaten by local police officers and two student nurses had witnessed it. She was concerned about those younger students' safety in that emergency room, both physically and emotionally after witnessing the event. She said she heard no clinical instructor was there to "protect" those students and there was no follow up for nursing students about how to debrief the situation.

Those students were emotionally damaged. Why didn't they protect the students? These are young girls. You know, they're not older like I am. You know I've seen a lot of terrible things like that, but poor girls! I got mad! I would tell the school, the faculty 'You guys need to up the safety and keep the students safe! Keep the students safe!'

Felicia also talked about a recent mugging she had heard about at a local hospital parking garage near campus. She discussed how a woman was walking to her car in the parking garage and was robbed at gunpoint. She went further to talk about her fears of someone coming into the school of nursing and shooting. "What if someone was to come into this classroom and start shooting? Is there anyone in this building patrolling? Are there cops at the door? We have to walk to our cars after clinical alone, sometimes at night!"

Although Felicia spoke about physical safety and gave specific examples of this, I sensed a deeper fear in her that related to emotional safety. She alluded to the fact that she was older than most of the other young nursing students "in their early twenties" and could handle all of this stress of nursing school, but they were not equipped. She went on to explain that she had experienced physical illness in her fifth and sixth semester of nursing school related to the overwhelming demands of school and this had taken a toll

on her husband and family. She related that it was “better” during her 7<sup>th</sup> semester because she was allowed to “do my own thing more” but I sensed that she was using parallels from the “safety of the younger students” to reveal her own vulnerability in her nursing education. She spoke of the importance of having faculty ask how they were doing and check in with them. When I asked her if she had ever experienced that, she said she had not until later in nursing school.

Felicia was extremely enthusiastic when talking about her experiences with VTS. She felt that it was “open and free”. She was able to express her thoughts and opinions about the artwork in a way she had not felt “safe” to do in nursing school. She talked specifically about the role of the facilitator, who checked in with her to make sure she understood what Felicia was saying. It occurred to me that this was what Felicia did not get from instructors in nursing school. Her example of the younger nurses who had been traumatized by their emergency room experience revealed her belief that the nursing instructor was responsible for checking in on them and helping them deal with that trauma. She had not experienced that for herself in nursing school.

The concept of being evaluated or critiqued in nursing education was the most prevalent of all themes and one that the researcher found the most surprising. Participants enjoyed the VTS and felt it had great value for them because they felt safe to express themselves without judgment or criticism. Melissa noticed the sense of feeling safe to explore and she stated,

Just the fact that there are no demands on you. Like you’re allowed to just kind of perceive things as you do, especially the imperfect and I feel like with medicine there’s obviously, um, out of necessity we try to be very precise and not make any mistakes.

As a matter of fact, the whole VTS process was directed by a trained facilitator who did not know the students ahead of time and did not evaluate their participation. The very fact that the students were encouraged to participate by someone who would not give them a grade was an attribute of the VTS experience, which they came to appreciate after their second experience.

Ben felt that the facilitator's acknowledgment of what he was saying gave him feedback and encouraged him to go deeper and explore his thoughts in a deeper, more meaningful way. After each impression Ben shared with the group, the facilitator paraphrased back what he said and asked if she understood him correctly. Then she asked the second question, "Tell me what you're seeing that makes you say that." This allowed Ben to feel safe because she validated his initial impression, giving him confidence that he was being understood and his thoughts were clear. This paraphrasing allowed him to feel validated and continue to look more closely, exploring the work of art more thoroughly. He felt confident after he was validated and he was more willing to go deeper after her feedback. For Ben, this affirmation of being understood and not judged provided an avenue to go further into the painting to explore meaning. This experience provided him with a rich opportunity to open up and speak out to a group he did not necessarily even know.

The example below is a paradigm case of how Ben felt the facilitator's role made him feel safe to speak out in VTS.

They reflect what you say. So it kind of gives some substance to what you're saying. It's recognition that what you're saying is not necessarily right, but it's an acknowledgement of what you say. Maybe I'm thinking a little bit about the clinical experience. But we don't...we spend time with instructors when we're passing meds, but other than that we're really spending time with floor nurses or

other nurses who others would be aren't really teaching. And I think, um, you don't get a lot of validation around how you interact with patients.

He went further to say that he often would not speak out typically in class, but this VTS experience made it easy for him to participate because the facilitator was not judging his response or putting a value on it for a grade. She was simply guiding a discussion. He felt that was important in nursing so that students could really hear what others were saying and gaining insight into how others come to a conclusion. In a classroom situation, Ben said he would be much more reluctant to speak out than in VTS because of judgment and pressure he felt from other students and professors.

I guess in the big classroom I know that someone is eventually going to give the right answer and...sometimes there's pressure; there's judgments about the wrong answer. But in a smaller setting you're dealing with your peers a little more and you're all trying to come up with a consensus.

Ben felt that receiving validation from nurses on the floor or from instructors would help build confidence in students and help students to feel less "judged." It would also help build consensus, which he felt the VTS facilitator did well, without saying anyone was right or wrong. He found the role of the facilitator to be encouraging and accepting, making it more likely for those who were there to engage in the discussion. He found the purpose of the facilitator was to guide conversations and augment participants' abilities to listen to each other and consider others' ideas "and just trying to understand where the other people were coming from." He noted that everyone participated, but it was not because they were required to, it just felt like a safe way to join into the conversation and throw out one's ideas.

Ben felt strongly that VTS offered a neutral territory for students to find their voice.



Everyone has an equal voice because there...no one has the expertise in the group unless they're trying to figure out the answer and compare the two, what the notes say next to the picture. I think it puts everyone on an equal plane, to fully communicate your opinion and that's validated by the facilitator.

Ben continued to discuss how he had worked in a corporate environment on a team with physicians. He led a research team and said his belief was that in their research, all team members were encouraged to participate.

And you realize there is no real benefit to withholding information or feeling like your idea isn't worth it in those settings, because, at least that's how I've facilitated my teams...is just to make sure that everyone feels like they have a voice because sometimes, good ideas are missed when people don't speak up."

Christine found the facilitator's role augmented this experience because she was not grading her, but worked with the group to enhance a conversation.

Oh, well she was open to questions and interpretations. If you say something silly, she doesn't give you a weird look like "That isn't the right answer". So she is very open and friendly. She didn't make me feel judged. There are sometimes when my opinion...it probably isn't right, but she was very open to it.

When asked about what happens in nursing school that would keep her from answering or participating, Christine said she often felt that giving a wrong answer was a public humiliation and she felt singled out. "I don't want to be wrong in public. I mean, I could say it, but sometimes it's like the teacher will say "Well, no!" I'd prefer to stay wrong in my mind". When asked about what it was that happens when a teacher tells her she's wrong, she said,

It makes you feel stupid. I'm not saying she's stupid, but we have a girl who sits next to me and she'll answer things like that and she'll get it wrong and she'll say things like 'I'm so stupid. I don't belong in nursing school'. And she's joking, but she's also getting the answers wrong, so...comments like that, I think well maybe I shouldn't say anything at all.

When asked why she was willing to speak out during her VTS, she said "It was awesome because you aren't going to get criticized because there isn't a right or wrong

answer! I just had an epiphany!” Earlier in that same discussion, Christine felt frustrated with her first VTS experience because she wanted to have the facilitator tell her at the end of the first VTS interaction who was right and who was wrong. She felt she needed to know what the “right” answer was. When the facilitator told her there was no right or wrong answer, Christine had voiced her frustration. “There’s always a right and a wrong! But I came to terms with it. That kind of let me explore on my own.” She came to recognize after her second VTS that the process of exploring multiple meanings provided her with a much more thorough understanding of the painting and that she spent much more time contemplating each work of art. She agreed that now when she looked at a work of art, she recognized that there was no right answer and her interpretation was important. Because everyone was participating, she felt safer to give her own opinion and the facilitator never indicated that any one participant’s response was better or more right than any others. For Christine, the fact that there was not a right answer helped her to participate more freely and explore more, which made her feel safe to speak out.

Melissa also found that speaking out was hard to do in nursing school. Although she felt there were some opportunities to speak out that felt safe (discussion boards, team based learning, and case studies), she found it uncomfortable for students who do speak out during class time. She found simulation to be intimidating because of the scrutiny and criticism. She recalled a time during simulation when she suspected the patient was having a pulmonary embolism, but she was afraid to say it. She said she kept thinking the medical student would diagnose it, and, because she had more training and experience, Melissa did not speak up. She doubted she could be correct because she thought the medical student knew more. She said other students felt the same way, but

kept waiting for the medical student. “But VTS would help us to systematically help me to say why I think it’s this and we could have discussed it and come to a conclusion. But we were afraid to be wrong...even the medical student.” She felt that VTS was an effective way to learn to speak out and provided a framework to evaluate without scrutiny from the provider, which allowed her to discuss more freely.

Oliver also talked about his being more likely to participate and share his ideas with VTS because everyone was invited to participate. He felt that the way the facilitator questioned the participants in both experiences encouraged them to take part and the more people that participated, the more rich the discussions were. It was the way the facilitator maintained a presence and listened that made him feel he was understood and valued.

You know the fact that no one was right and no one was wrong. Everyone. It was just complete acceptance. It makes you feel more accepted...you’re not going to be looked at as stupid because you have these thoughts of this painting.

Oliver felt that the conversations were casual and not as formal as those that occur in a hospital, so everyone felt relaxed and interested in listening. The more the group talked the more open and comfortable everyone was and he described the experience as being more fun because of the conversations that developed with each work of art. He said that in clinical, discussions were not as open or relaxed because there were so many tasks to do.

For Oliver, his role in the hospital involved mostly tasks that needed to be completed and, as a student, skills to perform. But VTS was not about skills, it was about how to articulate your opinion about a work of art. Because it was not task oriented, he felt more relaxed, which allowed him to really listen to others’ opinions and hear how

they came to a conclusion. This ability to focus without feeling pressure about performing tasks and skills made him feel more safe and flexible in his thinking.

Oliver also compared VTS to other activities he had participated in during nursing school. He used simulation as an example of a situation where he often felt reticent to speak out. He stated:

Sims (simulations) make you nervous and that's just...again, I get nervous. I mean, we did one just the other day and I still get nervous! I, you know, we've had them, I just, every student, we don't...the sims are very...just...you're being watched and you feel like you're being scrutinized and watched. And with VTS there's no risk. I think in a clinical setting there's more to risk than just your opinion.

Oliver felt that VTS would help build confidence in nursing students because the facilitator took time to explore and understand what they were saying. If he felt more confident, he was more likely to participate and engage in discussion with a group. Because the facilitator acknowledged what he said and really paid close attention to him, he felt more understood and confident.

He went on to explain that in nursing, a mistake could lead to the death of a patient, which was enough to keep students from speaking out when a question was asked for fear the stakes were too high. Therefore, giving an incorrect answer during class would indicate to everyone in class that you were not capable of providing safe care, so why would a student speak out? VTS, on the other hand, felt safe, so he was more likely to discuss and participate because no one would die if he gave an answer that was different or unusual.

Penelope found VTS to be interesting because everyone was encouraged to participate. She said she does not usually share or talk during class because she does not like feeling stupid. She talked about her fear of saying something wrong in nursing

school courses because of the fear of being mocked or intimidated. The following paradigm case provides a clear example of Penelope's fear and how it suppressed her learning in nursing school.

We had a very intimidating preceptor and it was in an area where you should be more...you should be able to ask questions or I can't learn. But we had a preceptor that was new and ended up yelling at a student and made her cry. Not just in front of five students, but five groups of students. And she(the student) started crying. And I remember just, from then on, instead of thinking about what I needed to be getting out of this experience, that I just...She made me so nervous that I went to put in a Foley catheter. I couldn't remember how to put on my sterile gloves. The silliest, stupidest thing like putting on sterile gloves! I couldn't do it. I just stood there and held the gloves and couldn't do it! She just looked at me and said 'You're done'. She said I could try another day, I was so nervous about putting on some stupid gloves! And I didn't ask any questions the rest of that semester. And that was the person I was supposed to trust! That was my first semester! I didn't get to put a Foley in until this semester. I did it in front of three doctors, five nurses. This was the first time I had a chance to try again since 'the incident'. And the nurse in the room asked if this was my first time and I said 'yeah', but I asked her if she could just walk me through it and she did, and like, I was done! I did it!

Penelope said she was initially nervous to speak out with her first VTS experience because she didn't know what to expect. She also admitted to not being an expert with art and having little exposure to it. But she said she ended up really liking it and felt like the group interaction felt safe. Penelope said she was a traditional student and historically had felt that accelerated students thought they were smarter than traditional students. She described how they sat in separate areas of the classroom away from the traditional students and felt faculty gave them preferential treatment and thought they were smarter. But she felt that VTS was good for the group experience because they were all given equal validation by the preceptor. In fact, she was not really sure who was a traditional student and who was an accelerated student. She enjoyed not knowing who belonged to what group and felt it enhanced the experience.

Felicia used to work in a lab as a scientist. She spoke of feelings of stupidity, but the paradigm case presented below is an example of how she avoided talking about her own fears and commented about other students:

So I've come from science, so everything is kind of, science is not open to a lot of interpretation...its data driven, so that's the background I come from. I had to really understand nursing technique. And every nurse has their own technique and that can be difficult. It's a struggling point. So when I would present the point that I didn't understand something, I would get some condemnation back from the professors and the instructors. And students, I notice, are very quiet. Because they don't want to feel stupid when they talk. She went further to discuss how she was older than most of the nursing students

and had a previous career, so felt she was able to let things go more than younger students. She gave an example of how she was embarrassed by a nursing instructor during a simulation:

Like the other day in sim, I voiced what I thought about central lines as it concerns nursing students. We don't usually mess with central lines. And when I said nurses don't usually mess with central lines, they don't want nursing students cleaning around central lines, touching central lines, doing that because sterility risks and you can introduce bacteria. So I'd said something like that but I made a bloop and said 'nurses' instead of 'nursing students' and the particular professor got very upset and she raised her voice and she said 'Excuse me? Nurses? Nurses don't touch central lines? Excuse me!' And she repeated it like 3 times in a very small room after sim and it was obvious that I had stammered out the words and I meant 'nursing students' but she really made a point to make it look like I had offended her greatly by saying that. So I notice that it's unfortunate.

Felicia used the word "unfortunate" but did not elaborate on what that meant. Of significance was the way Felicia spoke about physical illness, but projected stress onto other younger students and validated their stress, without really talking directly about her own stress. She referred earlier to physical illnesses early in nursing school but did not talk about how she had learned to deal with stress. She, again, spoke about her instructor's lack of concern as a deficiency in her nursing school education. Conversely,

she spoke about VTS positively, stating that it allowed her to consider others' opinions and it was a safe, beautiful experience, with no judgment or scrutiny.

Participants noticed that at the art museum there was no hierarchy or ways to differentiate status or station, which enhanced the feeling of being safe. Students who participated, as well as this student researcher and the facilitator all wore street clothes, no scrubs or lab coats. All participants met in the lobby for the first experience and in a reserved classroom for the second. Several participants noticed a more relaxed environment when red scrubs did not identify them or divisions in classes between accelerated and traditional students. They also discussed no titles or work descriptions, which they felt, enhanced their likelihood to participate in VTS.

The art museum felt safe because of the fact that participants were encouraged to call the facilitator by her first name, as well as the student researcher. Again, the fact that there was no hierarchy or titles made the participants feel more relaxed and less confined by title or role. This provoked Penelope to give a paradigm case of how the simple act of how to address a coworker was criticized in her experience as a student nurse:

I remember a resident that asked me to call him by his first name. So later I was talking to my nurse, and called him by his name and she told me not to call him by his first name. 'That wasn't appropriate' and patients would think it was disrespectful. And I'm like, well, he just told me to call him that, not doctor so and so...and she said "look, you need to keep him up here" (raising her hand above her other hand) and I was like how are we supposed to work together? I mean, I want the patient to respect their doctor more, which maybe we shouldn't do, but we are also working together. But what am I supposed to do? I am just a student nurse in red scrubs, but from my standpoint, like we're a team, and we should really be able to work together in front of the patient.

For Penelope, even the most basic form of communication, names and titles, made her feel fragile in the hospital environment. She liked that the facilitator introduced herself by her first name and encouraged everyone to participate. She also felt the

paraphrasing that the facilitator did made it more likely that participants would speak out because it made them feel validated and understood.

Natalie spoke about feeling safe to speak up because everyone was “even” in VTS. This excerpt provides an example of how she felt: “It’s hard to speak up when you’re a student because you’re going to stick your foot in your mouth and then someone’s going to, it will take a long time to get your confidence back...yeah.” She went on to talk about the safety of speaking out in VTS through this paradigm case.

And it is a safe environment. You’re not graded on what you say and that’s important. I would be more likely to talk here than a hospital room. You have to have a backing of what you’re going to say based on life experience, or your point of view. I mean my daughter could give her perspective but who’s to say she’s not right. So I think knowledge is valued as the absolute at the hospital. Even if you get a nurse who you don’t trust because she’s been there for 20 years, but even experience...no knowledge. I mean as a student, even if you know, you got to always have to ask in a question because you don’t want them to think they don’t know what they’re telling about. Or, even if you do know what you’re talking about, put it into a question from your perspective so you can be taught by them. I mean, as a student. I kind of hold back.

Natalie discussed how learning from hospital nurses was a difficult situation to navigate as a student. When she was at the hospital during her clinical rotations, trying to communicate with the staff nurse was often difficult.

There are nurses at the hospital that intimidate us and demean us. They don’t take the time to get to know us and what we can do. They just don’t know where we are at, but you feel intimidated and, like I want the nurse to ask me if I’ve done something before so that she knows where I am. I don’t want her to think I’m a know-it-all, but there are times when, like she thinks I don’t know how to do an accucheck and I’ve been doing those since I started. I mean there’s a lot I don’t know, but ask me and I’ll tell you. But you’re kind of afraid to say what you know because she’ll think you are a know-it-all.

Natalie had strong feelings about how to negotiate the role of being a student nurse and felt that VTS was beneficial in helping her to learn to speak up and be heard without intimidation or scrutiny. She identified several groups of people with whom a



nursing student was likely to encounter hierarchy and intimidation. These included physicians, management, nurse practitioners, respiratory therapists and physician assistants. For Natalie, VTS gave her practice in how to systematically provide information, which made her feel more confident, and, therefore more safe to express herself. She identified how it had “opened up my thinking” and provided her with a way to systematically express herself by helping her to provide visual evidence for what she was seeing. This experience, she felt, boosted her confidence in self-expression, which she identified as a secure way to perform in her work as a nurse.

**Theme 2 Thinking and Seeing Differently.** Because VTS is a systematic way for a group to look at art, this student researcher was not surprised to find that experiences with this educational strategy helped students to look more critically at artwork and describe it more thoroughly. Participants spoke about how this experience enhanced their clinical work and offered them an opportunity to consider more options, both in their private lives and their work as a student nurse.

A work of art was chosen that would allow participants to be able to find several meanings and interpretations. During interviews participants were given pictures of various works of art in order to foster their memories of the discussions that took place. Ben recounted the conversation around the work of art titled “Milar” by Tara Donovan with the following paradigm case:

So this one, it was interesting because there were those who had scientific backgrounds and it jumped out a little more, the atomic structures, um, and the, but there were other perspectives where other people said ‘Oh, I have no scientific background.’ That would have never been obvious that this was anything ever related to science’ and they had their kind of preconceived, more the, the beauty and sort of the natural structure of it versus the atomic structure.

In the final work of art that Ben and his group discussed, he noticed that the group approached the work of art in various ways. Some got very close to it, while others stood back and looked at it. He found he moved back and forth, noticing patterns and structure from far away and individual elements up close. He felt the perspectives of the participants influenced their interpretations of the work of art. He felt this movement was a metaphor for how people work at the hospital, with each seeing their role in caring for a patient according to their job. He used the following paradigm case to underscore this thought about working in an ICU:

So, with patients it's easy to, and I've seen this with my nurses...it's easy to just categorize what's going on with the patient. And make or kind of be dismissive about other things they are saying and perhaps, you could listen to your patient and look at the big picture and just not jump to conclusions and keep other things in mind that you might listen more closely when you talk. You see more of those pieces then, and perhaps you can see more of those then if you otherwise would miss.

Ben felt that VTS fostered the ability of students to consider other's opinions and hear how they came to their conclusions without judgment or critique. He felt it was important for nursing students to engage in conversations about gray areas because, in his opinion, nursing often occurs in this uncertain area. He believed that ambiguity is part of nursing, but in education we emphasize the certainty too many times. He believed that the most enlightening courses were the ones that foster open mindedness and provoked thought. The following is a paradigm case about his comment:

Instead, suspending judgment and trying to understand contextual aspects of a culture and why those things exist. So I sue that as a parallel to nursing because perhaps we encounter so many patients from so many cultures in so many ways and I've been in so many, um classes, even classes with student where people make judgments about patients and, you know, they aren't going to take their medications and this and that and I don't think they're appreciating the circumstances those patients are in. And I think all nursing students in particular could benefit from perhaps just understanding just where your patient is coming from a little more instead of just judging them. And that is the part of liberal

arts...it's not having that judgment about how to fix a problem, or if there is help, they can help those people, or um just being sympathetic instead of judgmental and 'we're going to withhold care' and 'It's a waste of money' and that kind of thing.

Ben felt that liberal arts education provided him with an opportunity in a previous degree to explore and consider others' contextual background and helped him to be more open-minded. He believed strongly that art provided a path for students to consider others' opinions and provoked conversations that allowed for students to be open-minded. By discussing art work, students considered in a real way how physical perspectives affected their view of art, and this metaphorically had the potential to allow students an opportunity to apply this in their nursing. Understanding meaning and context would help students to be less judgmental and provide better care. For him, nursing school did not allow much flexibility, even in scheduling of classes, and more importantly for him, in broad discussions about healthcare. Engaging courses that allowed open discussions and participation, he believed, would nurture students and might even directly encourage more students to go into research. Being able to question and ask questions openly, he felt, was important for students in developing a sense of inquiry that could lead to research careers. VTS, according to Ben, was a starting point for students to practice sharing and discussing ideas, without a lot of emotion or political discourse. He suggested it be incorporated in early courses, so that students could start with it, then progress to more complicated ethical discussions, basing those discussions on hearing how others' think and using evidence to support their statements.

Debbie also felt that the physicality of viewing art provided an opportunity for her to see a parallel between the art and her care of patients. VTS allowed her to practice looking at the big picture, taking time, then going to the details, then stepping back and

looking at the whole. This paradigm case exemplifies her thoughts regarding a point of view:

Like in clinical kind of what you get in report is the big overview (gesturing in round circle with hands) then you go in and you start to see the patient and then all the, like, the factors like their health history and their family and their components, all those things start to be the little things (motioning with small, little up and down gestures with hand). All those little things together kind of make up the big picture and then you kind of see it differently. That's reflective of what you got in report or if what you got in report could have had other aspects in it and made it more, I don't know, like the pictures match better.

Debbie said that her perspective on one of the larger works of art also changed according to her perspective, and when another participant talked about what he was seeing from his vantage point, she walked over to that spot to see it from his angle. This change-of-view, she felt, was a metaphor for working in an ICU, where the medical team worked with a patient and each person had a different perspective about what was going on with the patient. Her work with VTS, she felt, would help her to look at the "big picture" and try to clearly articulate, from her perspective, her understanding of others.

This paradigm case exemplifies the way she used VTS in her clinical care of patients:

There was a big focus on communication on all the other members of the healthcare team. Like the respiratory therapist, then the residents, then the different doctors that had come in and I think, when they would say something or the nurse, she did it, too, but we would repeat back what they would say or say it in a different way to clarify what we were all on the same page and we understood everything, looking at this from the same point of view so that we could all approach it in a unified way, as a unified group.

When I questioned her about specifically what had happened, she said:

Like with low oxygen levels...their LOC (level of consciousness) had started to change, and there are some early signs like nasal flaring, like cyanosis. Like giving evidence. I feel like they really correlated with VTS because...part of the things that frustrated me about VTS the first time was that there wasn't like, she wasn't like 'That was right, this is wrong'. So, and like, so much of what we've learned so far is like that. But now it's gray, there's lots of gray, there's not so much right and wrong, it's all based on my assessment, and this is what I see going on. And, like with VTS, it's like 'This is what led me to that conclusion

because if I can back up why I think that'. If I can tell somebody that, then maybe they'll draw the same conclusion, too. Or they might draw a different conclusion based on the evidence that I've told them.

Debbie also valued the opportunity to hear how other participants with VTS came to their conclusions. This chance to hear others think out loud was fascinating and allowed her to consider their perspective more readily. She said it reminded her of her work in nursing school with Team-based learning (TBL). When using TBL, her group was given a quiz to work on together. As students discussed what the right answer was, she found this thinking out loud aided her in her understanding of the question or topic at hand.

And sometimes I think 'Well, tell me why you thought that? Because if you tell me why you think you thought that, I might actually agree with you because I hadn't really thought of it that way and I may actually change my answer. But if you can't tell me why or present a good case for why you picked that answer... You have to have some process; you weren't just like 'C'. Like with Kaplan, too, the prep tests? They give you the rationale for why this is the right answer and why these are the wrong answers and I really like that.

Debbie also noticed that her ability to assess patients was augmented by her work with VTS. She felt that the process of using evidence to back up how one arrived at a conclusion during an assessment helped her to communicate her findings to others on the healthcare team. She felt that this opened up a discussion for her and her coworkers about what was going on and, in this excerpt, she said "OK. I can see how you got to this" which leads to more comprehensive care. She said

It's what you think and your ability to describe your thought process and what led you to this conclusion. It is a safe way to segway into it. So, it showed the importance of the ability to describe the finding that I had and report it, so I definitely think I will continue to use it.

Christine pointed out that, for her VTS helped her to notice components of a painting that she had not seen on her own. When discussing the work, “Sumac” she remarked:

And it was good because, like, looking at this picture (pointing to Sumac) there was a lot of things that I didn't notice, like a snake running around. It was cool because I looked at this picture and I analyzed it, and then someone else pointed out the snake and people started pointing out things that I missed. Nursing is really good because sometimes a fresh pair of eyes can really help you see what else is going on.

She was surprised, when looking at Sumac, how many varying opinions participants had about the same piece of work. Interpretations varied from aliens to a couple standing in a storm, to a couple fighting. She felt that it was insightful and fun to hear about others' viewpoints and how they came to those conclusions and said it made her look at the painting more and understand that there were multiple ways to look at it. She paralleled this art experience with VTS to a clinical situation. She had a patient who was on a ventilator and Christine was trying to understand why his oxygen saturation was so low because he was on 100% on the ventilator setting. She said her nurse explained that his hemoglobin was 6 and she thought to herself “Then, I was like ‘here is the snake in the weeds!’ (pointing to Sumac). Here is why he has really low oxygen. Then I could figure it out. It was like pointing out a detail that I missed that helped me to see the whole picture.”

Natalie also found the discussion about the artwork, Sumac, opened up a discussion and her perspective about this work of art by hearing what other students were seeing that she completely missed.

Like, if this really was a woman and that made me think this was a man. So, I guess it could have been either, but I personally think it was a man and woman, but I could see how someone might not be sure. It made me look again, or look to

see what the other possibilities were. I guess I assumed everyone thought it was a woman and man, and that part wasn't the part where I thought people had different visions. I think someone said something about aliens, and I thought, 'Yeah, I could see that, oh, and I can see how they got that. It wasn't what I thought at first, but...

Christine also gave another example of a specific work of art and paralleled it to her clinical experiences. When she first looked at an African work of art that was very large and complicated, she said she felt overwhelmed and was not sure where to start when the facilitator asked "What is going on in this work of art?"

Christine replied,

Yeah, it was like critical care. You first look at it and it's so much and it's so overwhelming, the you break it down into little pieces and it's like 'Here is the baby, here are people working, and they're making a potion here, and you break it down and it makes the big picture seem not so scary!

Yeah, I feel like VTS helped me to do this with paintings. I liked how at first she gave us two or three minutes to just look for ourselves then people started talking so that I had time to look at it...think...adjust...and then I could listen to other people's comments. I liked that.

Felicia also appreciated how VTS helped her to consider the opinions of others and look at the work of art in a different light. She pointed out that the collaboration she experienced in VTS helped her to obtain a more complete view of the artwork. "Oh, here I am thinking about this piece in this way and this person next to me brought out valid points about this piece that I completely missed standing here for thirty minutes!"

In the discussion her group had about "Cupid," she noticed that this Cupid was lying on the ground and looked odd lying there. She was not able to articulate why he looked odd, but another student pointed out that he looked like the proportions of his legs and arms were unusual, and another student pointed out retractions of his chest wall. She said another student remarked that Cupids were usually babies, but this figure looked

more like a man, due to his muscular development; then she suddenly saw the muscles and was able to build on that observation.

His muscles were developed and his facial features, although he was pudgy, he looked older because he had bigger ears and his facial expressions and his muscles. You know, he looks very defined. I remember someone saying that most cupids are babies, but this looks more like a male dwarf. Then they gave evidence and gave details. And once they said that, I could see it from their perspective. Details to aid the evidence, to build perspective.

Oliver found VTS helped him to think more critically and seek more understanding in clinical settings. He found himself asking floor nurses “Tell me how you got that” so he could understand their thinking more thoroughly. This paradigm case from Oliver captured that:

I think VTS really helps me out with that because it begs me to ask those questions. More freely. And, with some of the terminology, or you know using the descriptive language and stuff, it's really helped me with my critical thinking skills in that respect. It tests me to go further. You know, what do I see on the surface with this problem? What's the data I'm getting? Why is it this way? And to go further with that. I kind of equate it to the critical thinking. To dig deeper...

Oliver also found it helpful to hear how others were thinking out loud. He and Ben had never met and participated in the VTS experience the second time together.

It was interesting to see how he interpreted these paintings. So it really prompted me to ask him what his background was. You know, I asked him as we were walking out what his experiences had been. Well, he was a chemist and they don't do stuff like this. So it kind of reinforced how his thinking was very logical and analytical. With the paintings. You know, I'm not...so, he was very analytical and logical and looked at the little details and picked out the heart and...in that one (pointing to Flight Out of Egypt). I don't know. I guess I tried to think a little more abstract, but maybe I wasn't as evolved in that way? He had completely different thoughts than any of the rest of us have.

Oliver also found VTS has helped him to think more about what someone is thinking or going through. He related a very personal story about using VTS to help him understand how his mother was doing. She was recently diagnosed with cancer and did



not share much about it with her children. “She’s very closed about how she will...she doesn’t want to burden people with things. So, she’s very closed about how she’s feeling or whatever. You know? So I’ve used VTS...really get a lot of that ‘How is she feeling today?’ He went on to explain how he uses “Tell me more” to get her to open up and talk about how she is doing. “And so I’m able to draw some of these things out a little and ‘Ok, I’m getting to understand how she feels’. He also found VTS helpful in obtaining health histories on patients to get them to expound and give more information to him and open up. He said it helped him to confirm what he was hearing from patients and help advocate for them. He felt he was able to see a more complete picture from a patient if he used VTS to get more information when he talked to them.

Melissa found some paintings more difficult to interpret than others. She said that the group dynamic of VTS helped her to understand and see more clearly what a painting might mean. She found the large African work of art overwhelming and said she did not even know where to start. She initially thought she didn’t like it because it was unclear what the meaning of the artwork was.

Like I kind of wanted more to the story and I wanted to hear what happened to these people. But hearing the other perspectives about maybe being the milk of life, and this being the dead under here and some of the people disagreeing and then the mother caring for the baby. Then some of us noticed physical anatomy of the mother and some of us didn’t even see that. So it was a lot of things that people were pointing out that others hadn’t even seen so I thought it was another useful piece to pick out because of that. Because there was so much that we hadn’t seen that others had.

Melissa went on to talk about how nursing school did not provide many opportunities to discuss possibilities; there was a right and a wrong answer and all that counted was how one did on an exam. She suggested that in a clinical post conference, students should be allowed to discuss how they felt and for clinical educators to ask

students “What do you feel about your clinical today?” and “Can I hear something from the crowd? What went on?” She felt that discussions where students could freely talk about their experiences would help them to think more broadly and hear how others dealt with situations, which she felt she could benefit from hearing. In this way, VTS provided her an opportunity to speak freely and hear what others thought, which, for Melissa, expanded her thinking and her ability to assess a situation in the hospital.

Penelope felt that VTS would really help her to understand how doctors processed information and had actually discussed this with students who did the first VTS with her afterwards. She said they discussed VTS as a tool that physicians could use to assess patients. This paradigm case exemplifies how Penelope felt about the way VTS helped her to look at situations differently and assess patients in a more thorough way.

Like, why am I just looking at numbers (vital signs and lab values), not looking at the patient. And it makes you look deeper and closer at the patient. It reiterates that instinct that when you go in...you are so nervous, but it helps with critical thinking process. It really helps you to look closer and notice more. It promotes it more to assess better. The second time I just kept thinking ‘This is clearly something I could do with patients, and I could use it with assessment.’ It helped me to really listen and ask myself ‘Why are they doing that?’ So I can see how it can be used. I think we need to do things differently. Like this assignment! That’s the whole point. It makes sense and it makes me look at things in a different way other than a power point. Like, this really gives me something other than a power point and lets me practice and it really helps. The activity and the discussions were great. Like, if we just went on our own, and looked at art, that wouldn’t help. But doing it with a group in this way was really helpful. It was great.

### **Researcher Perspective**

As participants spoke of their experiences and meanings about VTS, the student researcher was able to link these to principles of educational philosophies. This realization led to a second level of analysis that linked the student voice to educational theory and practice; resulting in a manifestation of teaching practices termed *facilitative*

*teaching*. As part of the findings, a table was created that illustrated the link between participant meanings and findings to educational concepts. The following represents the student researcher themes derived from the study.

Table 2 Educational Concepts from Researcher Perspective

Educational Concept	Meaning to Student Through VTS Experience
Promotes speaking out (Garon, 2012)	Validation
Formulation/Reformulation (Vygotsky, 1993)	Reformulation of VTS Processes to Clinical Practice
Modeling (Sanders and Welk, 2005) (Coyle-Rogers (2008)	Mutual Respect

### **Validation**

Participants articulated how the role of the facilitator in her approach to their comments provided validation for them and made it more likely that they would speak up. As the facilitator in VTS listened to their responses to “What was going on in this painting?” she pointed to the area where the participant was referring and then paraphrased back what was said. She also sought clarification from the participant, which validated that participant’s response. Participants spoke of her attentiveness and presence as she listened to them. They identified that they felt validated by the facilitator during this encounter.

As part of validating participant responses, the facilitator used active listening without any judgment or authority. Participants recognized this as mutual respect, which encouraged them to look further at the painting and expand their thinking. As they looked deeper and listened to others’ opinions, participants noted that they gained more insight into the painting and found more meanings than their initial view. This “looking

deeper” was augmented by the facilitator’s role of inviting participation and non-judgmental validation of responses.

The facilitator showed no partiality to any one participant’s response during VTS. These participants saw this as an invitation to expand their thinking. Because all were given equal validation and acknowledgment, they felt freer to explore and express their own voices. Participants were able to consider multiple possibilities for meaning and expand their own thoughts. Sometimes as discussions occurred, one participant would say “I can totally see why you said that”, gaining further insight from the words of another participant, and noticing more detail that may have been missed initially. Participants felt that the role of the facilitator and the manner in which she engaged them in the conversation allowed them to really learn more and “opened up my thinking” as stated by Penelope. Garon (2012) found that nurses working in the hospital setting were more likely to be empowered to speak out if they were validated by nurse managers. Nurse managers who promoted a climate of openness and who provided validation were more likely to promote speaking out in their nurses. Validation and encouragement were identified as components of good nurse managers by staff nurses (Garon, 2012). Educators and nurse managers are similar in that each functions in an authoritative role. This authoritative role over students has potential to positively or negatively affect student comfort in speaking out, thus making validation of their efforts extremely important.

### **Reformulation of VTS Processes to Clinical Practice**

All participants were asked to “tell me about a time when you used VTS in your nursing care. Each participant was able to readily respond, yet all linked it to different

situations. Ben specifically talked about how the VTS facilitator augmented his listening in clinicals and helped him to consider where other people were coming from, which broadened his understanding of those who were different from him. He said that he was able to consider the point of view of a respiratory therapist more thoroughly because they were cued into a different aspect of caring for his patient in the ICU, and before VTS he had not really taken the time to consider that viewpoint.

Melissa was able to think about the VTS process and how others approached the same work of art in a different manner, which changed her viewpoint. She applied the knowledge she gained in VTS to her clinical work by seeking out viewpoints of others in clinical and asking how they got to their conclusions in clinical. She was able to transform this experiential learning (VTS) into her clinical practice. Vygotsky's sociocultural theory states that knowledge is more than just the acquisition of facts: it is the transfer of concepts and facts from one situation to another (Vygotsky, 1978).

Christine spoke about her VTS experience with the work of art titled "Healing of Abiko Children". She initially found it overwhelming and too busy, so she just listened as others interpreted it. As she was able to learn from others, she began to participate and involve herself in the discussion. She was able to link this experience of being overwhelmed to a clinical situation she had in nursing school. Her first day in the ICU was overwhelming as her patient had multiple IVs, was on a ventilator, and had a chest tube, and multiple medications. She found herself overwhelmed. Yet, Christine articulated that she approached it like the artwork: she broke down the pieces in the clinical setting and tried to understand those, then looked at the "big picture" of the patient and relate the smaller, more individual pieces like each IV to the big picture of the

original diagnosis of the patient. This is an example of Vygotsky's principle of formulation/reformulation, as students take what they learn in social situations and apply it to other situations (Vygotsky, 1993). It is through their dialogic interactions that students reformulate problems and internalize them. Through those interactions what is placed in a public forum becomes information that can be taken up by individuals as well as by the collective. (Putney, 1997).

### **Mutual Respect**

Several participants spoke about the act of listening by the facilitator and how this made them feel respected and heard. This listening and attempt to understand the participant perspective resulted in the students feeling respected and instilled a sense of trust between the facilitator and student. The development of a trusting relationship has been found to empower learning (Bradbury-Jones et al., 2011). Providing a sense of respect and attention enabled students to observe and enact this in their own experiences. Oliver talked about listening to his mother as she shared how tired she was after her recent cancer diagnosis. He was able to listen attentively, question her further, and validate her by modeling the role of the facilitator in VTS. Sanders and Welk (2005) proposed that teachers can model verbally and nonverbally for students and promote mutual respect through educational encounters. Likewise, Coyle-Rogers (2008) discussed the need for mutual respect as foundational for creating positive learning environment in the classroom.

### **Summary**

This chapter provided a rich description of the meaning of VTS for students and why they chose it, what it meant to them, and how they used it in their care of patients.

Two themes emerged during the data analysis: Safety in learning and Thinking and Seeing Differently. Under each theme, exemplars and paradigm cases were presented to provide the reader with insight into participants' experiences and the meaning VTS had for them. Details of these conversations, as well as paradigm cases were provided so that the reader can come to understand more deeply the concerns and meanings of participants.

In analyzing participant responses, it became evident to this student researcher that students sought out this learning experience for various reasons, but all participants found it an effective way to learn. They identified safety in a variety of ways, both physical and emotional, as a common theme that VTS provided. This safety allowed them to participate more freely in group discussions and to hear what others said. By looking at art in a systematic way, and listening to other participant viewpoints, participants were able to consider other opinions and develop a more thorough meaning of a work of art. These participants were able to translate this experience into their nursing in various ways, both through assessment and consideration of the viewpoints of others to expand their care of patients. This VTS experience enhanced participants to see and think differently as they care for their patients.

This chapter also provided themes that came from the perspective of the student researcher through the voices of the participants and the meaning they found from VTS. These themes included validation, reformulation of VTS processes to clinical practice, and mutual respect. These themes are reflective of how the voices of the participants validate what has been previously based on evidence from literature in nursing education, educational philosophy, and nursing research.

## Chapter VI

### DISCUSSION, IMPLICATIONS, AND RECOMMENDATIONS

Two major themes were revealed by the data analysis regarding the research questions: 1) “What meaning does VTS have for nursing students?” and 2) “How do students use VTS in their care of patients?” After completing the data analysis using Heideggerian hermeneutics, the data from students’ experiences revealed a theme: “feeling safe” in a learning environment. Also revealed was the theme of seeing and thinking differently. Separate themes from the perspective of the student researcher were also identified: validation, reformulation of VTS processes to clinical practice, and mutual respect. This final chapter contains a discussion about the implications of these findings and briefly identifies prior studies in the current literature that reflect similar findings discovered from the data of this study. Implications for practice are also discussed as well as possible future research. The term *facilitative teaching* has been developed from this research and is addressed in a separate section of the final chapter. A final section explores the role of the facilitator and directs nurse educators to sources that access VTS programs in their community.

### Discussion

#### Interpretation of Results

In-depth one on one interviews were conducted with research participants and interviews were transcribed. Heideggerian hermeneutics was the research methodology used to interpret findings. After conducting each recorded interview, this student researcher transcribed each interview word by word. To maintain trustworthiness of each participant’s words, the audio tapes were compared with the written transcripts. As



previously discussed in Chapter V, this student researcher established the trustworthiness of data by using participant words as often as possible through exemplars and paradigm cases.

Interpretive summaries were written by this student researcher following each interview, and then rewritten after she spent time reviewing the summaries and re-read the transcripts. She held discussions with the research team that provided insight into other possible meanings and concerns within the transcribed texts. These discussions were summarized in the reflective journal of this student researcher in order to provide an audit trail. After several meetings with the research team, data from the interviews led to the identification of specific themes.

The first theme to emerge was Feeling Safe in Learning and the second theme to emerge was Thinking and Seeing Differently. Various exemplars and paradigm cases, previously presented in Chapter V, illuminated the findings of these themes through discussions about the meaning of VTS for nursing students.

### **Feeling Safe in Learning**

The theme of feeling safe to learn was revealed in a variety of ways throughout the interviews with the eight nursing students who participated in the study. When students discussed how the characteristics of VTS made them feel safe to explore, they also exposed current practices in their experience of nursing education where they felt situationally stifled in their learning. This tension of being free to explore and express ideas contrasted strongly from their expressed fear and shame, which they reported about prior learning experiences in their classroom, in simulations, and in their clinicals. The fear of being wrong kept students from speaking out during class because of the shame

associated with making a mistake in nursing. They spoke of “a mistake in nursing could kill your patient” as a high risk learning stake. If their peers or instructors perceived them as dangerous, then they felt strongly that they would not be allowed to perform skills in clinicals because it might appear that they were incompetent. This fear of verbally making a mistake kept students from speaking out and from participating, even if one of the students thought s/he knew the correct answer.

Student participants identified the facilitator’s role as a key in feeling safe to speak out and verbalize their opinions about artwork, even though most students remarked that they were not experts in the subject of art. The facilitator began each discussion of an artwork with the question “What is going on in this picture?” When a student volunteered an answer, the facilitator listened intently, then paraphrased back to the student what s/he had said, which provided the student with an opportunity to clarify or validate what s/he said. Students remarked in their interviews that the act of paraphrasing by the facilitator really validated their answers and it made them more likely to speak out again. They also noted that if the first student who volunteered to speak was validated, they were more likely to participate as they witnessed the positive experience of the first classmate who spoke. As each participant discussed what s/he saw and provided evidence for what s/he saw, the facilitator stayed “present” and really listened to him/her, which all students found novel and validating. Having their responses validated was an encouraging part of the work of the facilitator, which made it more likely they would freely discuss their ideas in future sessions. Students who felt listened to and validated were components of their “feeling safe.”

Participants in this study appreciated being heard and feeling free to speak out without judgment or criticism. In fact, participants often spoke of the role of the facilitator as a means to validate their findings and observations because their voice was actually heard. Because there was no grade associated with the initial homework assignment, students felt a freedom to engage in an open discussion without the fear of losing points or being penalized in some way, either by an instructor making an example of them or through the humiliation of being wrong in a high stakes-learning environment.

Participants felt that VTS was a safe learning experience because it provided a safe learning environment that was free from the oppression of a hierarchical setting like the hospital or even the classroom. Therefore, the setting of this experience is critical because it was totally removed from a classroom or clinical location; rather, VTS occurred in a safe place in the art museum. In the museum, students noted that no scrubs, no nametags, no labels, and no titles existed and that even their instructor was their equal in VTS. She wore street clothes and did not profess any prior knowledge of the meaning of a painting or the history of the artist. Without a sense of hierarchy, students in this research study were able to participate openly, without fear of being inferior or knowing less than others. Again, the role of the facilitator induced this feeling of being equal, since her response to all students was equal and she validated each of them equally. Because the students perceived she heard and acknowledged their voices equally, the VTS experience made students more likely to speak out and participate.

### **Seeing and Thinking Differently**

Students felt that the experience with VTS helped them to see and think differently. VTS had been found to increase descriptive words in a previous study by

Klugman et al., 2010. It also increased scores on tolerance of ambiguity and willingness to communicate. Participants really valued hearing how others thought and how they processed what they were seeing. Students identified this modeling of thinking as a way to help them see in a broader sense and have a deeper understanding.

Applied to their work as a nurse, these students felt that going from the big picture to a noticing of detail, and then back to the big picture was a metaphor for how they viewed critically ill patients or patients who had multiple medical conditions. Again, the work of the facilitator helped them to see more and to continue to search.

### **Review of Literature in Relation to the Findings**

During this research study, the issue of feeling safe to learn was revealed as a component of VTS. However, participants revealed that, in contrast to VTS, they often were hesitant to speak out in nursing courses or during clinical times. They did not feel like they had a voice in their nursing education experiences and VTS offered them the opportunity to speak out without judgment or fear of consequences. In fact, speaking out was encouraged.

In Bradbury-Jones, Sambrook, and Irvine's (2011) study, they raised the issue of voice in their research study and found that students withdrew from speaking up and kept quiet in several clinical situations where they felt afraid. Thirteen first- year nursing students from the UK were recruited for this longitudinal hermeneutic qualitative study. Annual semi-structured interviews were sent to participants and they used van Manen's essential meanings to analyze their approach to the phenomenon of empowerment of nursing students in clinical practice. Findings showed that in situations where nursing students were called on to speak up, they either metaphorically exited or reluctantly

spoke up. Even when students felt a patient's health might be compromised, they did not feel free to speak out because of ramifications from the nurse with whom the student was working in the clinical. Researchers found students often metaphorically exited the situation by withdrawing or staying physically away from an uncomfortable situation. They found that students felt the need to speak out, but remained silent because of the fear of not having a legitimate voice and not being sure how to navigate the hierarchy in a clinical. Students feared their speaking out would jeopardize their clinical placement and compromise their place on the healthcare team. The study also found that as students progressed through their curriculum, they learned to negotiate their voice by questioning and asking for logic as they confronted difficult situations. These students also recognized that asking questions was inherent in their role as a student and they learned over time to negotiate difficult situations by asking questions, and tempering their attitude with an inquisitive nature (Bradbury-Jones et al., 2011).

In another study, Levett-Jones and Lathlean (2009) spoke about nursing students and speaking out when they saw something inappropriate or wanted to question care in the hospital. Their qualitative study used 18 third year nursing students from two universities in Australia and one in the United Kingdom. Using qualitative research methodology, interviews were conducted and analyzed. Three themes emerged: don't rock the boat; getting the RNs offside; and speaking up. They reviewed Florence Nightingale's description of a 'good nurse' as having the characteristics of obedience, loyalty to the team, and respect for authority. Their paper also spoke about hierarchical structure of healthcare, saying, "Within the hierarchy of the healthcare system nurses became acculturated to do and say what was expected, to conform rather than question, to

accept rather than debate important issues” (Levett-Jones & Lathlean, 2009, p. 343).

Nurses were doomed to be in the subordinate role from this historical perspective. This hierarchical system induced a feeling of being inferior for nursing students. Their research highlighted how student nurses conform when they are in a clinical situation and adopt the institution’s values and norms rather than challenge them as a way to be accepted by nursing staff.

In this current study, students’ responses during the VTS study revealed participants concerns that floor nurses might deny them clinical experiences if they were to speak out or ask questions, so they did not feel safe to speak out and conformed to their perceived role. Conformity was described by Nolan (1998) as a way to feel safe and keep a low profile so that students could fit into perceived norms. In this descriptive, interpretive study, researchers sought to understand clinical education in Australian undergraduate nursing students. Students participated in taped, transcribed post clinical conferences. Analysis revealed three themes: 1) I don’t belong; 2) doing and practicing; progress at last; and 3) transitions in thinking. These students revealed that fitting in with the team during their placement was linked to more opportunities to learn. By students presenting the appearance of conforming, RNs were more likely to share opportunities with them, allowing them to practice their skill set. Those RNs were also more likely to explain and talk with students who complied and did not appear to challenge them. This characteristic of being quiet and acquiescing does not fit in with the notion of developing nurses who are independent thinkers and who advocate for their patients, a charge set forth by the Institute of Medicine (2010).

Nursing education needs to encourage students to speak out and voice unsafe practices. Patient safety is compromised when nursing students do not feel safe to speak out. Feeling unvalued and fearful of consequences for questioning practice was found to lead to a “value dissonance and emotional stress” in student nurses in a study by Steven, Magnusson, Smith and Pearson (2013, p. 7). This multisite study used a multi-method design to explore formal and informal ways healthcare students learn about patient safety in the UK. Their study, which was performed between 2006-2008, provided a focus on nursing, analysis of curriculum documents, interviews with program leaders, students, nurses, and focus groups. Content analysis was used to reveal themes about how patient safety was infused into the nursing education curriculum. Results indicated that students felt unlikely to speak out about patient safety issues because of perceived power imbalances that might compromise their grades. Researchers found that more attention needed to be paid to education and medical facilities’ practices of safety to help students develop dialogue and promote a culture of safety, not only for improved patient outcomes, but to augment student learning.

Human factors contribute to medical errors that occur when individuals interact in health care. Acts of omission (failing to act) often occur and lead to undesirable patient outcomes (Deborough & Prion, 2012). Because nurses are the patient’s first line of defense, they are responsible for advocating for the patient through clarification, verbal interruption, and communications. Nurse educators are called upon to provide opportunities to develop safe care in nursing students. The Quality and Safety Education for Nurses (QSEN) resources were developed to improve and enhance quality and safety in patient care. Six clinical competencies were included in the QSEN resources: patient-

centered care, teamwork and collaboration, quality improvement, patient safety, informatics, and evidence-based practice (Debourgh & Prion, 2012). Nurse educators have the potential to provide educational experiences that provide opportunities for students to consider the whole picture, focus on observational skills, and mitigate errors by promoting effective communications. Among the suggestions for educational interventions to promote safety by Debourgh and Prion were language and communication skill development and collaboration. These strategies could make it more likely that future nurses would advocate for their patients by speaking out about errors.

Garon (2012) found that RNs felt more competent to speak out when open communication was encouraged by nurse managers in the clinical setting. In this qualitative study, RNs were interviewed and attributes of nurse managers who promoted speaking out were discovered. Managers who had an open door policy, were good listeners, and provided positive feedback to employees were more likely to have staff who felt safe to speak out. These findings were particularly poignant, since they support the findings of this current VTS research study, wherein the participants identified the facilitator as one who provided positive feedback for those students who spoke out, who were good listeners, and who identified the paraphrasing as elements that clarified and validated participants' interpretations. These attributes are significant to nurse educators who might consider using paraphrasing and encouragement as students speak out in class.

Participants in this current study appreciated being heard and feeling free to speak out without judgment or criticism. In fact, participants identified how the role of the facilitator often made them more likely to participate. By having their findings validated and paraphrased back what was said, participants felt more likely to offer further insights



as conversations continued. They felt more likely to participate with each consecutive discussion about a work of art, identifying the actions of the facilitator as encouraging and supportive. This interaction between the facilitator and the student fosters a social interaction that is a key component in the educational philosophies of learning in a social context like that of Lev Vygotsky. Social interactions of learning are a shift away from modes of learning that focus on acquisition of knowledge and skills (Benner, 1984; Berragan, 2011). Benner et al. (2010) called for new methods of engagement in learning. Social interactions proposed by Vygotsky are one way that innovative teaching strategies can be enacted in nursing education. VTS is based on these principles and offers nurse educators an innovative teaching method to infuse in their teaching.

In this study with VTS, participants revealed that shame and fear of being wrong were roadblocks to their feeling safe to explore and in their ability to learn. The dynamic of shame was discussed in educational literature; however, little has been discussed in nursing education. Bond (2009) discussed the use of shame in clinical nursing education as it related to nursing. She identified that for human beings to develop healthy relationships, they must feel nurtured and affirmed. Otherwise, shame can interfere with socialization and may be detrimental to graduated nurses who transition to the new role of RN. In contrast, she discussed how a safe learning environment can drive learning and higher order thinking. Bond further questioned,

How do we as faculty balance the need to ensure client safety by evaluating the competency of students and yet provide an atmosphere for learning which fosters in the student self-confidence, independence, and accountability for deficits with respect to cognitive, psychomotor, and attitudinal competency? How can we best break that cycle of anxiety, stress, lack of self-confidence, and self-esteem, which not only affects the individual student and his/her relationship with faculty but which, as we glean from this study, also affects the student-client relationship? (p. 138)

Bond presented information about providing a safe environment for students without the use of shame. Components of a safe environment included connections with students and instructors, elimination of power-based relationships, and mutual listening and empathy (2009). VTS is a teaching strategy that employs these techniques and allows students and instructors to connect through art in a safe learning environment.

The role of the facilitator was found by participants to engage them in learning and help them to open up and discuss art in a safe, encouraging way. Her questioning, paraphrasing, and modeling employed concepts that are part of Vygotsky's Zone of Proximal Development (ZPD) (Sanders & Welk, 2005). These strategies offer students the potential to scaffold off of each other and build meaning. Sanders & Welk (2005) reviewed teaching strategies for nurse educators based on educational philosophies of Vygotsky. They discussed Vygotsky's belief that knowledge was built upon interactions between the learner and others through social interactions. The role of the educator was to guide these interactions, as the facilitator did in VTS. Students who were questioned by educators were able to expand their thinking and noted higher levels of cognition through thinking out loud strategies that allowed other students to hear how they drew conclusions (Sanders & Welk, 2005). Nursing students in the VTS experience found that hearing how others constructed their thoughts and impressions expanded their own ability to think and consider how others reached a conclusion about the art. This "thinking outloud" provided insight for students and helped them to consider others' thought processes. This concept of thinking and seeing differently is supported by Vygotsky's educational theories based on the educator as a supporter who stimulates and guides students through collaboration and expansion of thinking (Sanders & Welk, 2005).

Thinking and seeing differently as a theme is supported by research studies that used VTS in nursing and medicine. VTS was found to increase descriptive words in a previous study by Klugman et al, 2010. VTS also increased scores on tolerance of ambiguity and willingness to communicate, using tools that measured these quantitatively. In Klugman et al.'s study, students spent more time looking at art after the VTS intervention. Time spent looking at artwork and the number of words used to describe what they saw were both representative measures of observation and the authors ascribed these outcomes as an increase in the likelihood that students would spend more time interacting with patients. Their study also discussed how that in the art museum, no hierarchy was present, which may have promoted participation.

Art seems to provide an even playing field outside of usual health care hierarchies. Art is also ambiguous, rarely presenting right or wrong. Students were never told the rightness of their responses; they were simply encouraged to say more. Through art, students developed significantly increased comfort with ambiguity. This is important because medicine is about more than numbers and test results. Technology provides more predictive power but also more ambiguity because one does not always know what the test results mean. (Klugman et al., 2010, p. 1269).

Students who experienced VTS felt their ability to see was enhanced by looking at art and by being asked to give visual evidence for what they saw. Naghshineh et al. (2008) confirmed these findings in their study. Following an art observation course (that used principles of VTS) and that related to a didactic clinical course, students increased their total mean number of observations and used more descriptive words to link to their physical findings. Pellico et al. (2008) also used focused observational works of art and found nursing students who participated in the art experience were able to write more about what they saw and gave more objective descriptions of photographs. Students who experienced the art observational experience also offered more alternative diagnoses than

the control group. These findings demonstrated how visual arts promote thinking and seeing differently, similar to the findings with VTS in this current study.

Briege Casey (2009) wrote about art as a technique to enhance exploration and inquiry in undergraduate nursing education. Her paper discussed methods using art to facilitate inquiry and critical thinking. Specifically, discussions of art involved both individual and group dialogues that promoted a negotiated meaning-making, which she found enhanced observational skills (Casey, 2009). Students grappled with uncertainty and were able to explore meaning, which also enhanced their ability to think critically. These findings resonate with those of VTS meanings for nursing students. Hearing how others think and by working in groups to find meaning promoted students' abilities to see and think differently.

Applied to their work as nurses, participants in this current VTS study felt that going from the big picture to a noticing of detail, and then back to the big picture was a metaphor for how they viewed critically ill patients or those with multiple medical conditions. Again, the work of the facilitator helped them to see more and to continue to seek more detail. They also found that considering others' opinions expanded their thinking. This expansion of thought was presented by Pam Ironside in her research articles on narrative pedagogy. Ironside (2006) interviewed teachers and students from 22 nursing schools in the United States over a 4-year period. These interviews revealed that narrative pedagogy, as a teaching strategy, increased students' abilities to challenge assumptions and interpret clinical findings, and thinking differently. Narrative pedagogy includes community interpretive perspectives and communal thinking, similar to strategies used in VTS. In 2006, Scheckel and Ironside used hermeneutics to find that

narrative pedagogy enabled students to extend their thinking and “students collectively considered the account from multiple perspectives” (p. 161). Narrative pedagogy emphasizes how students learn and encourages critical thinking as opposed to analytical thinking. With an emphasis on how students experience thinking and learning, thinking can be expanded through educational experiences and practice. One theme found in Scheckel and Ironside’s research study (2006) was Cultivating Interpretive Thinking through reflective, embodied, contextual, communal, and pluralistic thinking. Questioning, being open and listening were found to prepare students to think amidst ambiguous and uncertain health care situations. Consideration by students about how other students dealt with clinical situations allowed them to consider the complexity of clinical care and the multiple ways it could be understood. Scheckel and Ironside’s study found that narrative pedagogy helped teachers and students to cultivate creative learning practices and interpretive thinking, providing another avenue of learning beyond analytical thinking (2006).

Heideggerian hermeneutics is based on the philosophies of Martin Heidegger, and therefore, requires a look back to his philosophical underpinnings (Draucker, 1999). For students, VTS represented a metaphorically safe way to explore meaning. The artwork represented their approach to caring for a patient and allowed them to describe and find meaning without consequences or danger. Martin Heidegger specifically talked about art and what it was for humans, and what it represented. “Art is both the origin and the goal of a work of art” (Jaeger, 1958, p. 59). Heidegger spent time discussing Van Gogh’s “Boots with Laces” and its true meaning. The painting is of a pair of old work boots. But Heidegger argued the painting is not a pair of boots, it is a representation of boots.

But did the field worker who wore these boots ever recognize or acknowledge the boots? No, as the boots were an extension of herself. She engaged with them daily, but did not think about them. They were part of her lifeworld that she engaged with daily. They became an extension of her and she used them without thought or regard. For Heidegger, the boots represented the “everydayness” of life and the way in which humans encounter things and use them without thought (Young, 2001). This metaphor represents the work done with students in this study. Heidegger contended that when the peasant puts on her boots every day, she doesn’t think about them, but they are an extension of her. Only when there is a problem with the boots does she become aware of them. For students, they do not often think about how they learn. VTS was a teaching strategy that revealed something which was hidden from students. This teaching strategy uncovered their concerns about safety in learning and provided them with an educational opportunity to see and think differently. Heideggerian hermeneutics attempts to uncover that which is present at all times, but that which is not outwardly evident. Reality may appear blocked or veiled, but truth lies within the everyday.

‘A work of art, however,’ Heidegger insisted, ‘does not only reveal something true, but truth itself.’ We witness ‘unhiddenness’ itself in relation to existing reality as a whole. The truth which is at work in van Gogh’s painting does not consist in revealing an object as a pair of shoes. The painting represents shoes, to be sure, but it also opens up a whole world and sheds light on a unified whole of existing reality. Therefore, Heidegger says that in a work of art, all that exists becomes more truly existent. Heidegger stated, ‘Truth establishes itself in some existing reality in such a way that this itself occupies the overtness of truth.’ In the work of art, truth is embodied. (Jaeger, 1958, p. 66)

VTS used art to uncover meaning, and, in this way, art was a path to uncover how students learned and discovered their voice as they sought to find meaning in a work of art. The VTS learning experience revealed vulnerabilities in student learning experiences

and helped to uncover and reveal ways in which students felt safe to explore and expand their learning. The VTS experience with art also uncovered an avenue for students to think and see differently through careful consideration of others' thinking and seeing.

In a conceptually similar article, Koithan (1996) discussed aesthetics in nursing practice and education. She wrote about the role of aesthetics in providing opportunities for awareness in education through creativity and expressionism. She also found aesthetics to enhance nursing through improvement of nurse-client therapeutic relationships. She discussed art as a way to improve assessment and caring techniques through the potential development of awareness. This same awareness and expansion of seeing and thinking differently was significant for participants in this VTS research study. The VTS teaching experience exposed students to others' ideas and thoughts, which brought awareness to them, similar to what Koithan discussed.

### **Implications for Nursing**

The role of the facilitator was illuminated through these in-depth interviews with students who participated in VTS. Nurse educators may benefit by enacting the role of the facilitator in their coursework. The role of facilitator in VTS is specific and deliberate. The VTS facilitator was neutral in the process of VTS. Addressing the whole group, she opened each discussion with the comment, "Take a few minutes to look at this painting." Those few minutes allowed participants to be silent and really look at the work of art. Then she asked the first question, "Tell me what is going on in this painting/work of art." That question invited participants into the painting. As each participant provided her interpretive meaning, the facilitator pointed to the area the participant was discussing. Then she asked the participant, "What are you seeing that

makes you say that?” This question caused the participant to give visual evidence for what she saw and she looked at the painting again for more detail. After the participant responded, the facilitator paraphrased back to the participant what she said, asking if she understood correctly and validated the participant’s response. Students found the act of paraphrasing as positive reinforcement for their participation, making it more likely they would speak out again.

Then, turning to the group, the facilitator asked, “What more can you find?” This question required them to look again at the work of art and build on what had been said previously (scaffolding) or provide a completely different response. Again, the facilitator pointed as the next participant responded, then asked for visual evidence by asking, “What are you seeing that makes you say that?” After paraphrasing that participant’s response, she again asked the group, “What more can you find?”

This process allowed participants to hear how each individual came to her own conclusion while simultaneously considering multiple interpretations. This process is significant in nursing, since nurse educators are quick to diagnose or accept a given diagnosis without considering other healthcare team members’ interpretations or viewpoints. Nurse educators need to focus on creative strategies to teach nursing students in a setting that will enhance critical thinking skills (Popil, 2011). VTS holds potential for nurse educators as a method to enhance critical thinking and observational skills.

This consideration of others’ viewpoints and how a student nurse approaches the patient holds potential for nurse educators. Exams are often given that include one right answer without any consideration of other possibilities or to hear a rationale for a wrong



answer. Nursing often occurs in the vague, ambiguous areas because unknown etiologies, unexplained consequences, obscure side effects, and unclear job descriptions plague the world of nurses (Casey, 2009). We assess, treat, communicate, and care with many others who are involved in a patient's world (Benner et al, 2010). These actions are often delivered by not just the nurse, but family, physicians, social workers, medical assistants, nurse practitioners, respiratory therapists, and physician assistants. Each discipline comes to the patient from its own viewpoint. However, how often do these individual disciplines see the patient proverbially through these others' eyes? Albeit, communication is often identified as an area of healthcare that is fraught with potential for misunderstanding and can even lead to poor outcomes for the patient (IOM, 2010).

The nurse educator has the opportunity to facilitate learning by enacting these principles of taking a moment to look and to observe quietly. When asking for input from students, the educator can really listen and be present, paraphrasing back what the student said. This act of listening and paraphrasing offers the student the opportunity to clarify and validates his input, making it more likely he will speak out in the future. Asking "What are you seeing that makes you say that?" is a way to push the learner to use evidential reasoning to fortify his findings. "What more can you find?" invites the participant to look more deeply and further to acquire more from the painting and go deeper. More time is spent in the acts of observing and noticing.

The role of facilitator in nursing education can be practiced by faculty in the classroom. When presenting case studies, the nurse educator can facilitate conversations by asking students "Take a moment to look at this patient's condition". Asking "What is going on in this case study?" could start the conversation. As the student gives his

opinion, the teacher can validate him by paraphrasing back what the student said, then asking “What are you seeing that makes you say that?” This allows the student to provide visual evidence and look more closely. Normally, a nurse educator might be quick to say “No” or “Yes” to an answer without really listening or exploring how the student came to that conclusion. By asking the student to provide evidence for what he is seeing that makes him say that, other students can hear how other students reached their conclusion, and might even glean ideas and information from a fresh perspective to inform their own conclusions. By hearing what someone else is saying, a student’s perspective is expanded. This expansion could be paramount to improve communication among other healthcare workers as individuals consider how others think and work. As nurse educators expand their understanding of how students think, educators can provide learning environments that allow for inquiry and in-depth learning. Student nurses who can expand their questioning and understanding are more likely to challenge assumptions in patient care and advocate for patients in the healthcare system (Bond, 2009). This type of questioning is paramount in intellectual and professional growth for the healthcare team.

Team based learning (TBL) also promotes the role of the nurse educator as a facilitator in nursing education. Clark, Nguyen, Bray & Levine (2008) studied TBL as a teaching technique based on active learning strategies. Their study used group comparisons to evaluate TBL versus a traditional lecture format. Nursing students in a pharmacology course experienced traditional lecture format and were compared to students in a Case Management course that used TBL. Students in this study took both courses simultaneously. Effectiveness of the different teaching strategies was evaluated

using the Classroom Engagement Survey. Students in the TBL course scored higher on this test, indicating more participation and enjoyment. Students who used TBL reported more in-class participation, but also expressed fear about the uncertainty of what they should focus on for exams. In TBL, students work with the nurse educator who facilitates learning instead of lecturing to passive students. This teaching technique allows students to engage in learning, which promotes team communications while enhancing group accountability. TBL is based on active learning by the student and engages them in course work and communications. Similar to VTS, TBL encourages students to provide a rationale for their thinking and participate with group activities in order to promote teamwork and communication. The opportunity to hear how others think is also a result of TBL.

Nurse educators may benefit by incorporating VTS into their respective courses. Although VTS is a teaching method and curriculum used in primary education, training programs are offered throughout the country for nurse educators who are interested in training as a VTS facilitator. Training sessions, research articles, and current news about VTS are offered on their website, <http://www.vtshome.org/>. Trained facilitators can also be located by contacting a local art museum in the area where the nursing instructor lives and inquiring about VTS programs at that particular facility. If a trained facilitator is available, the education department at art museums can coordinate a VTS tour. This experience can be incorporated into a course by arranging a VTS experience at a local art museum. Discussions about how this technique might be applied to a specific nursing topic can be provided during class time or at the end of the VTS session.

## **Facilitative Teaching**

The VTS experience revealed essences of the processes, as experienced and voiced by the participants, based on the facilitator role that can be utilized by nurse educators. These essences hold potential for nurse educators to enhance their teaching through the utilization of components identified in participant interviews. The notion of facilitated teaching emerged from these themes and provides implications for use in nursing education.

Components of the facilitator role from VTS were revealed through interviews with participants and identified in three themes: validation, reformulation of VTS processes into clinical practice, and mutual respect. These concepts are discussed below and suggestions provided for nurse educators about how they might incorporate some or all of these to augment teaching.

Participants remarked that the facilitator in VTS listened attentively as they gave their interpretations of artwork. She then reiterated what the participant said through paraphrasing and questioning. She often asked participants “Did I understand you correctly?” or “Is that what you meant?” For participants, this act of validating provided a sense of security and confidence. The validation also provided a clear understanding of meaning from the participant to the facilitator. As a result, participants noted that they were more likely to speak out and participate in future discussions because there was positive reinforcement for their act of speaking out. Nurses who feel heard and validated are more likely to use their voice in caring for patients. This validation also provides an opportunity for the participant to clarify or restate their opinions and provides the

facilitator with an understanding of the viewpoint of that participant. This understanding can reveal to educators how students think and reach a conclusion.

Participants in VTS were able to link their interactions with the artwork directly to patient care metaphorically. They also used the process of questioning by the facilitator to question both patients and family members in order to develop a more clear understanding. This ability to translate an educational experience into a real-world experience was identified in the theme of reformation of VTS processes to clinical practice. The VTS facilitator asks participants to take a moment and observe a work of art. After that observation, the facilitator asks the group “What is going on in this painting?” A follow-up question of “What are you seeing that makes you say that?” requires the participant to give visual evidence for what they are seeing and back it up. Educators can pose this question to students in a myriad of ways, without casting judgment or criticism. This question and the attentive listening that occurs afterward are important as one attempts to understand what was said and also requires the student to provide evidential reasoning. At the same time, the facilitator/educator is demonstrating a sincere attempt to understand the response or answer. Students can use this line of questioning in their clinical practice as part of an assessment, or to gain more insight into how patients are thinking. The importance of listening attentively and paraphrasing back cannot be emphasized enough, as these components demonstrate respect from the facilitator/educator. Mutual respect in education can increase the likelihood that students participate and speak up. Finding a voice is an important component of nursing care and communications.

The act of looking at a work of art as a whole picture, then breaking it down into smaller pieces and then stepping back and gaining perspective from viewing the whole is a metaphor for how students can view clinical situations. This act of looking enhances students' abilities to assess and observe in clinical situations. Participants in this study were able to translate the experience of VTS into their clinical practice and "see the big picture". Nurse educators can incorporate this into their teaching by projecting an image of a complicated work of art onto a screen and asking students "What is going on in this picture?" By following the VTS facilitator questions, students can learn the process of the line of questioning. Then the educator might show a picture of a complicated patient and have students practice breaking the components of the scenario into smaller pieces. This process can model for students how to systematically assess and question, increasing the likelihood that they use this same systematic process in caring for patients. Students can learn to look critically and think systematically. The nurse educator can also model for students how to question and seek understanding without judgment or criticism.

The facilitator asked students to take a moment and observe the work of art. The simple act of taking a moment to examine the artwork showed the students that their opinions were going to be considered carefully and that she was going to invite them to participate. She did not call on participants; she simply asked "What is going on in this work of art?" and then allowed students to volunteer. This invitation was important in that it showed a level of mutual respect and recognition that participants were invited to join the discussion, not required to participate. Again, this invitation demonstrates a level of respect for the student, not commonly done by educators. Inviting participation is more respectful than demanding an answer or calling on someone who was not ready to

respond. The act of inviting participation is a subtle way for nurse educators to demonstrate respect for students instead of putting them on the spot or making them feel pressured to respond. Mutual respect from nurse educators can be provided by attentive listening, paraphrasing, and seeking further understanding. Nurse educators can provide respect for students by suspending judgment and encouraging expansion of thought. This process can reveal student thinking, at the same time demonstrating mutual respect and collegiality. Again, modeling for students can increase the likelihood that they will use these same techniques in their nursing.

### **Facilitative Teaching in Action**

In summary, participant interviews revealed aspects of the role of facilitator that nurse educators can incorporate into the classroom. The facilitative teacher can promote mutual respect and validate students, which increases the likelihood that they will participate and find their voice. The facilitative teacher can also expand student thinking by inviting participation and seeking understanding from students about how they understand a concept. As the facilitative teacher listens attentively and paraphrases, she promotes a mutual respect in the classroom. This mutual respect can enhance learning and encourage participation, which helps students to find their voice and be more likely to speak out. As students translate these skills into their clinical practice, they synthesize these concepts into their nursing care. Students who speak out in class and question may be more likely to incorporate that voice into their work as nurses. Nurses who speak out are more likely to communicate with other healthcare workers, which may enhance patient outcomes. Facilitative teaching strategies are realistic and easy to incorporate in

any clinical, classroom, or laboratory setting. Information about basic concepts, rationale for use, and ways to incorporate into learning settings are included in the table below.

Table 3. Facilitative Teaching in Action

Themes that Emerged from Researcher Perspective about VTS	Educational Rationale for Practice	How nurse educator can implement these concepts into practice
Validation	Promotes speaking out (Garon, 2012)	Paraphrase student response Ask "Tell me how you came to that conclusion" and paraphrase back to student. Ask "Did I understand you correctly?"
Reformation of VTS Processes in Clinical Practice	Formulation/Reformulation (Vygotsky, 1993)	Display complicated work of art during class and ask "Tell me what's going on in this picture" Ask "What are you seeing that made you say that" Paraphrase back Provide picture of complicated patient scenario and repeat above questioning like VTS
Mutual Respect	(Sanders and Welk, 2005) (Coyle-Rogers (2008)	Invite participation (don't require it), seek understanding of student's view, ask for rationale and how they came to the conclusion, paraphrase and seek understanding of response, model mutual respect through direct questioning without judgment or criticism.

### Limitations of Study

This study was limited by this student researcher's newness with utilizing Heideggerian hermeneutics. Other limitations were revealed in the student researcher's interview techniques. As initial interviews were transcribed, the student researcher tended to go directly to the next question instead of probing to explore deeper meanings from the participants. As subsequent interviews were conducted, an effort to pause and listen more intently was made to rectify and probe more deeply into the participant's



story instead of going on to another question. These pauses often allowed participants the ability to expand a thought on their own without prompting.

Participants in this study only experienced two, one-hour VTS sessions. A series of several VTS experiences might have provided more of a structure and practice for participants, which could have yielded more uses for it in their clinical practices. Previous VTS studies have utilized either 3 sessions or a full semester of VTS experiences, although no proscribed number has been determined to be optimal (Housen, 2001).

### **Recommendations for Future Research**

This study revealed the need for students to feel safe in exploring and questioning ideas and practice. Results also revealed that VTS helps students to think and see differently using art. Additionally, VTS offers nurse educators a teaching method that provides specific components that students value in their ability to explore and learn. These components are highlighted by the role of the facilitator in VTS. The facilitator provided routine questioning that offered participants the ability to look closer and provide visual evidence for what they were seeing. The facilitator offered validation of what students said by paraphrasing their responses and seeking confirmation that she understood them correctly. These responses enabled other students to hear each other and discover how others arrived at their conclusions and established their opinion. This ability to hear how others think aloud is highly valued by students, both through VTS and in the classroom. Participants in VTS could consider multiple interpretations of what a work of art means and that no single interpretation stood out as valid or correct. In other words, students were able to consider safely all the possibilities and explore several

potential meanings for a work of art. The VTS experience has the potential to influence nursing so that student nurses can learn to consider others' points of view as they work in healthcare teams caring for patients. Additionally, the VTS experience provides student nurses with a framework from which to question and probe deeper into what they see.

Future studies include those that specifically look at the role of the facilitator in VTS and how those interactions with participants enhance the experience. Additional possibilities could expand the use of VTS in interdisciplinary education by including medical students, physical therapists, social workers, and nurses. The potential for studies to expand on how healthcare teams interact would provide an opportunity for these groups to work together and explore meaning. Furthermore, VTS and/ or using the concepts of VTS has the potential to expand healthcare workers' understanding about how various members approach healthcare through thinking aloud and working in a safe, neutral environment of the art museum. Translating the concepts used in the VTS experience could also be helpful in meeting the call from the IOM to provide interdisciplinary educational opportunities for the healthcare team.

## APPENDIX A: UNLV INFORMED CONSENT FORM



### INFORMED CONSENT

Department of Nursing

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**TITLE OF STUDY:** The Meaning of Visual Thinking Strategies for Nursing Students

**INVESTIGATOR(S):** Lori Candela EdD, RN, FNP-BC, Principal Investigator, phone # 702-895-2443; Margaret M. Moorman, RN, MSN, Student Investigator, phone 317-274-4352

For questions or concerns about the study, you may contact Meg at (317) 274-4352.

For questions regarding the rights of research subjects, any complaints or comments regarding the manner in which the study is being conducted, contact **the UNLV Office of Research Integrity – Human Subjects at 702-895-2794, toll free at 877-895-2794 or via email at IRB@unlv.edu.**

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#### **Purpose of the Study**

You are invited to participate in a research study. The purpose of this study is to explore the meaning of Visual Thinking Strategies (VTS) for nursing students who have already participated in one VTS experience during their nursing program at Indiana University School of Nursing. The researcher hopes to discover what meaning VTS has for nursing students and how they use it in caring for their patients. This study has the potential to expand nurse educators' understanding of VTS as a teaching method.

#### **Participants**

You are being asked to participate in the study because you fit these criteria: You are being asked to participate because you have already volunteered to participate in one VTS experience during your sixth semester of school. Your participation will be sought in this research study to expand our understanding of VTS and how it influences your care of patients and your work in the hospital.

#### **Procedures**

If you volunteer to participate in this study, you will be asked to do the following: participate in a one-hour VTS experience at the Indianapolis Museum of Art (IMA). After that session, you will be asked to participate in a one hour interview about your two experiences with VTS. The interview will take place in a quiet, private setting of your choice. The interview will be audio-taped for later transcription. The transcribed interview will be stored under a pseudo name and stored by the researcher in a locked file in her office.

#### **Benefits of Participation**

There will be direct benefits to you as a participant in this study. We hope to learn about the meaning VTS has had on you as a student. We hope to learn, through your interviews, more about how students use VTS and what meaning it has for students. The findings from this research study are expected to

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*Approved by the UNLV IRB. Protocol #1211-4318M*

*Received: 12-14-12 Approved: 12-21-12 Expiration: 12-20-13*

expand nurse educators' understanding of this teaching technique and may influence how nurse educators teach.

**Risks of Participation**

There are risks involved in all research studies. This study may include only minimal risks. The questions asked of you relate to your VTS experience and how they might influence your care of patients. These questions are not expected to cause you any discomfort. However, if you feel stressed or discomfort at any time during the interview you may stop the interview and take a break. You will be reminded of this during the interview. You will also be reminded that you may stop the interview or withdraw from the study at any time with no negative consequences.

**Cost /Compensation**

There will be no financial cost to you to participate in this study. The study will take 2 hours of your time. You will be compensated for your time. You will be offered a free membership (worth \$35) to the IMA at the conclusion of the interview. The VTS experience will last approximately one hour and the interview will also last about one hour. You may be contacted by phone after your interview to clarify any statements made during the interview by the researcher.

**Confidentiality**

All information gathered in this study will be kept as confidential as possible. No reference will be made in written or oral materials that could link you to this study. All records will be stored in a locked facility at UNLV for 3 years after completion of the study. After the storage time the information gathered will be destroyed.

**Voluntary Participation**

Your participation in this study is voluntary. You may refuse to participate in this study or in any part of this study. You may withdraw at any time without prejudice to your relations with UNLV or Indiana University. You are encouraged to ask questions about this study at the beginning or any time during the research study.

**Participant Consent:**

I have read the above information and agree to participate in this study. I have been able to ask questions about the research study. I am at least 18 years of age. A copy of this form has been given to me.

\_\_\_\_\_  
Signature of Participant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Participant Name (Please Print)

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**TITLE OF STUDY: The Meaning of Visual Thinking Strategies for Nursing Students**

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Audio/Video Taping:

I agree to be audio taped for the purpose of this research study.

---

Signature of Participant

---

Date

---

Participant Name (Please Print)

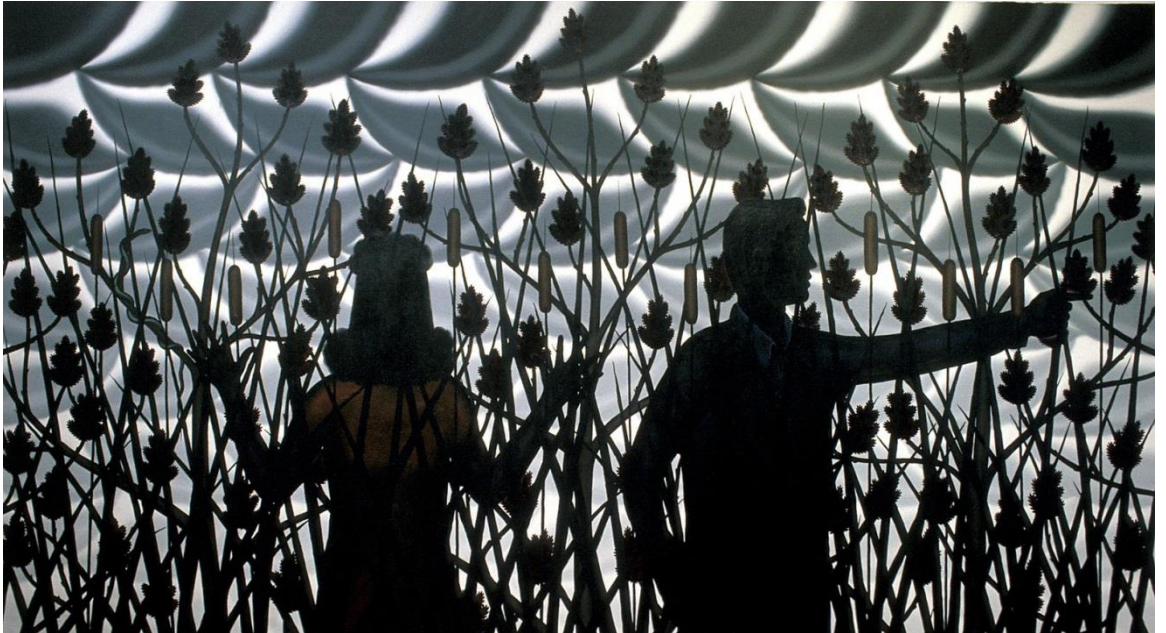
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Received: 12-14-12 Approved: 12-21-12 Expiration: 12-20-13*

APPENDIX B: ARTWORK FROM VTS EXPERIENCE 1



Sleeping Cupid by Caravaggio



Couple in Sumac Thicket by Roger Brown



Milar by Tara Donovan

APPENDIX C: ARTWORK FROM VTS EXPERIENCE 2



Flight into Egypt by Marc Chagall





Healing of Abiko Children by Twins Seven-Seven



Barbie loves Ken; Ken loves Barbie by Ghada Amer



Ghanaian Duvor (Communal Cloth) by El Anatsui

## APPENDIX D: UNLV EXPEDITED IRB APPROVAL



### Biomedical IRB – Expedited Review Approval Notice

#### **NOTICE TO ALL RESEARCHERS:**

*Please be aware that a protocol violation (e.g., failure to submit a modification for any change) of an IRB approved protocol may result in mandatory remedial education, additional audits, re-consenting subjects, researcher probation, suspension of any research protocol at issue, suspension of additional existing research protocols, invalidation of all research conducted under the research protocol at issue, and further appropriate consequences as determined by the IRB and the Institutional Officer.*

**DATE:** December 21, 2012  
**TO:** Dr. Lori Candela, Nursing  
**FROM:** Office of Research Integrity - Human Subjects  
**RE:** Notification of IRB Action  
Protocol Title: **The Meaning of Visual Thinking Strategies for Nursing Students**  
Protocol #: 1211-4318M  
Expiration Date: December 20, 2013

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This memorandum is notification that the project referenced above has been reviewed and approved by the UNLV Biomedical Institutional Review Board (IRB) as indicated in Federal regulatory statutes 45 CFR 46 and UNLV Human Research Policies and Procedures.

The protocol is approved for a period of one year and expires December 20, 2013. If the above-referenced project has not been completed by this date you must request renewal by submitting a Continuing Review Request form 30 days before the expiration date.

#### **PLEASE NOTE:**

Upon approval, the research team is responsible for conducting the research as stated in the protocol most recently reviewed and approved by the IRB, which shall include using the most recently submitted Informed Consent/Assent forms and recruitment materials. The official versions of these forms are indicated by footer which contains approval and expiration dates.

Should there be *any* change to the protocol, it will be necessary to submit a **Modification Form** through ORI - Human Subjects. No changes may be made to the existing protocol until modifications have been approved by the IRB. Modified versions of protocol materials must be used upon review and approval. Unanticipated problems, deviations to protocols, and adverse events must be reported to the ORI – HS within 10 days of occurrence.

If you have questions or require any assistance, please contact the Office of Research Integrity - Human Subjects at [IRB@unlv.edu](mailto:IRB@unlv.edu) or call 895-2794.

Office of Research Integrity - Human Subjects  
4505 Maryland Parkway • Box 451047 • Las Vegas, Nevada 89154-1047  
(702) 895-2794 • FAX: (702) 895-0805

## APPENDIX E: INDIANA UNIVERSITY IRB APPROVAL

INDIANA UNIVERSITY INSTITUTIONAL REVIEW BOARD (IRB)  
REQUEST TO DEFER REVIEW OF HUMAN SUBJECTS RESEARCH

PI NAME Margaret M Moorman  
IRB STUDY # 1301010371  
STUDY TITLE The Meaning of Visual Thinking Strategies for Nursing Students

### Section I: Investigator Information

LEAD INVESTIGATOR (at reviewing institution)		LEAD INVESTIGATOR (at deferring institution)	
NAME	<u>Lori Candela EdD, RN, FNP-BC</u>	NAME	<u>Margaret M. Moorman</u>
INSTITUTION	<u>UNLV</u>	INSTITUTION	<u>Indiana University</u>
FWA	<u>00002305</u>	FWA	<u>00003544</u>
DEPARTMENT	<u>Nursing</u>	DEPARTMENT	<u>Nursing</u>
E-MAIL	<u>Lori.Candela@unlv.edu</u>	E-MAIL	<u>mmmoorma@iupui.edu</u>
PHONE	<u>(702)895-2443</u>	PHONE	<u>(317)274-4352</u>

### Section II: Type of Review

Please indicate the review level and category under which the reviewing IRB approved the study

- Exempt Review | Category \_\_\_\_\_  
 Expedited Review | Category \_\_\_\_\_

### Section III: IU Investigator Role & Requirements

Please describe the IU investigator's role in the conduct of the study:

**Margaret M. Moorman is full time faculty at IU School of Nursing and is seeking her PhD from UNLV. She will be performing research on her former students at IU for her dissertation at UNLV.**

Ensure that the following requirements have been met:

- IU investigator has passed the appropriate CITI modules.**  
Please visit [http://researchadmin.iu.edu/REEP/reep\\_citi.html](http://researchadmin.iu.edu/REEP/reep_citi.html) for more information.
- IU investigator has a current Conflict of Interest disclosure form on file**  
Please visit [http://researchadmin.iu.edu/COI/coi\\_disclosure.html](http://researchadmin.iu.edu/COI/coi_disclosure.html) for more information.

### Section IV: Documents Included with Request

Please include the following documentation with your request submission:

- Final IRB approval letter from reviewing institution  
 IRB-approved study documentation, including protocol summary, informed consent documents, recruitment materials, questionnaires, etc.

## APPENDIX F: REFLECTIVE JOURNALING—AUDIT TRAIL

**2-15-2013**

I am keeping this journal as a way to keep an audit trail. Although Heideggerian Hermeneutics holds that no one can extricate herself from their experiences and their shared meanings, it is important to demonstrate that I am aware of my own personal biases during this research process. After doing VTS for so many years with students, I have an idea of what I will find but this is not definitive. Although the research with VTS is limited, doing a lit review did also identify other ideas that I am afraid may influence my findings. I understand why HH recommends a lit review after your research. Otherwise, one has a preconceived notion according to previous studies about what you will find.

I am really worried about having students show up today. It is snowing so that may prohibit them from showing up. I have had a worse response than expected in terms of students showing up. It would have been better to write art museum experience in subject headlines instead of VTS. Students may not remember that term.

What do I think students will gain from this experience? I think students crave an opportunity to do something social in nursing school. I think they want to gain knowledge that is not related to nursing but to make them more well-rounded people. I think students crave culture and cultural experiences as well as socialization.

Students want experiences that make them better nurses without putting them “on the spot” or in high pressure learning experiences that are often intimidating and high stakes. They want to learn the information because it matters to them and seek out ways to learn that will be relevant to caring for patients. I also think they will identify that they

are more “present” with patients and will use more words to describe a condition than before this experience. I think it will help them to break down learning into simple steps and be more clear and articulate.

I think students will learn to look beyond the obvious and provide rationale and visual evidence for what they are seeing and will learn to give evidence for what they are seeing. Facts are backed up by visual evidence. They will learn to listen carefully and seek out clarification and consider others’ opinions. Students will apply this to nursing by being better active listeners.

I hope that I can get interviews scheduled fairly quickly after this experience. I am thinking about what kind of questions I will ask during my interviews.

Tell me about your first VTS experience.

Tell me about your second VTS experience.

Tell me about a time when you used VTS in nursing.

What constitutes a meaningful educational experience for you.

Tell me about a time when you experienced a meaningful educational experience.

Describe your interactions with other participants during VTS. (actually, that is more descriptive phenomenology...strike that!)

#### **4:30pm**

Just got done with VTS! Everyone showed up, even early! I got the informed consents signed and had time to talk with students individually about their part in my research. The conversations were great! Everyone participated and our facilitator was great. The last work of art, Ken and Barbie, generated such deep conversations! Culture, sexuality, stereotypes...great interactions!

**2-19-2013**

Had my first interview with Penelope yesterday. She had a lot to say and kept giving examples about her nursing care. When I asked if she could link it to her VTS experience, she lit up and said “oh, yeah, definitely!” I hope that wasn’t a leading question, but she made several connections. My first impressions of her interview were that she felt a big sense of INJUSTICE between Groups:

Accelerated vs. traditional students

Students vs. faculty

Students vs. floor nurses

Students vs. medical students

Students vs. doctors

She did not mention students vs. patients. She felt that the assessment of the situation could be broader if nurses looked more closely and had a deeper understanding of why patients were the way they were.

She gave a great example of how there was a patient in the recovery room who was “non-compliant” according to nurses there, but she had cared for him on the floor and knew his history. When she went down to care for him, she could calm him down because she knew more about his background and insecurities. She “saw the big picture” and could direct her care more effectively.

**2-20-2013**

Group 2 VTS experience today. We only had 3 students but two were friends. Ken and Barbie exhibit was closed and being disassembled. ARG! I planned and spoke



with the IMA a year ago to ensure that all 3 works of art that we chose would be available. Here are some notes from the VTS discussions:

Harlequin Family: (random notes from discussion that lasted about 14 minutes)

Oliver: Looks like clowns going somewhere.

Facilitator: What are you seeing that makes you think they are clowns?

Oliver: He has checkered pants, a pointy hat and a big white collar around his neck.

Ben: Yes, and his face his painted white. He also has blue hair.

Penelope: And he is on a horse, like he is standing on a horse. Like what a clown would do in the circus.

Penelope. At first I thought it was like a concentration camp, but after we've talked about it, it changed. I think my thinking expanded after hearing Oliver and Ben. I didn't see that at first. I also don't think the candle and the crow fit into this picture because now I see it as a circus.

African Piece: 25 minutes discussion (this was a segment of the conversation)

Oliver: It is a whole village with work being done.

Penelope: I think it is an African village.

Facilitator: what are you seeing that makes you think it is an African Village?

Penelope: Well the colors are lots of tans and browns, which would fit the climate in Africa. And the people have their faces painted like Africans would do.

Oliver: I don't know if those are people?

Facilitator: what are you seeing that makes you say that?

Oliver: Well, it looks like they have claws for hands.

Penelope: But they have toes. And the number of toes they have are inconsistent.

Ben: I think these are people. They are gathered in groups with baskets and sitting near that hut.

Penelope: I agree. This looks like a parent figure near this structure. And there is a child hiding here.

Oliver: I didn't even notice him!

Ben: Neither did I!

Barbie loves ken closed! We will improvise and do Ghanaian by El Anatsui Duvor

Oliver: Looks like a blanket with wrinkles

Ben: There is a real contrast between textures here...lots of metallic.

Penelope: I think it looks Egyptian.

Facilitator: What makes you think it is Egyptian?

Penelope: Well, it looks like it may represent all nations...with different symbols. Lots of chaos and stress in it, like what different nations experience.

Oliver: Or it could be a topographical map. Here are the hills and mountain tops.

Ben: It could be a symbolic view of a country, and I think it is made of beer tabs. Maybe there is a deeper meaning there.

## **2-21-2013**

Started to transcribe interviews. I wonder if I got enough background information on students because I didn't really ask any specific questions about age or demographics. My committee didn't say anything about that, and since this study is not meant to be generalizable and I didn't request this on IRB, I won't worry about it. Will double check with Pam and Sherry and Lori in future conversations.

Transcribing these interviews really helps me listen carefully and makes me realize how out of tune I was during the process. I am going to stop following a script and really try to listen to participants. I am going on to the next question instead of listening to what they are saying at the time. I need to engage students where they are and really listen and get deeper with what they are saying. Transcribing these takes forever, but it really helps me to listen again hear students' voices.

Interviews spread out over next 3 weeks. I am transcribing them myself so it is taking forever! I am hearing lots of things that I should have followed up on but didn't. Will try to listen more in future and stop following script so much.

### **3-26-2013**

I had three interviews today! Only had 2 scheduled, but a third student showed up on wrong day, so I accommodated her. It was really hard to do 3 in a day and would not do that again! One student really took forever to give answers and was very vague and evasive. It almost felt like she was being passive aggressive. Several times she said she couldn't think of an answer. Not sure why she volunteered! Frustrating!

### **April 1, 2013**

Met with Sherry Sims today to talk about data analysis. I've been writing key words in sides of transcripts on left margins and summarizing emerging themes for each interview. She suggested waiting to identify themes and continue to read and rewrite interpretive summaries instead of trying to pin down specific topics at this juncture. We discussed transcription and how time consuming it is. She felt like it was valuable as a student to do it and would ensure I was hearing and identifying closely with student meanings. Glad to know this has some meaning. My hands are killing me! We also

talked about interviews and how I switched from scripted questions to being present with students and following a line of questioning that emerged from their statements...much more true to hermeneutics! Yeah! I might be getting some of this! She was very encouraging and suggested I keep rereading transcripts and hold off on identification of themes. She said she, Pam and I would talk more about analysis later this month when we meet.

### **April 18, 2013**

Met with Pam Ironside today on phone. Sherry was supposed to meet with us but had to cancel due to a death in her family. I had sent Pam some of my interpretive summaries and my analysis, trying to tie in Heidegger's philosophy and literature that links to themes. She suggested I stop reading Heidegger right now and focus on the transcripts. She asked me in Ben's transcript "What is he trying to tell you?" We discussed this for a long time. I identified safety in learning and we talked about some sub themes, including place, scrutiny and art. She suggested instead of several themes, to just work with safety right now and pull out those relevant exemplars and paradigm cases. Then reread the interpretive summaries and sit with the information and rethink it. I was relieved to hear her say that. We talked about the hermeneutic circle of looking at the whole, then going into the smaller, more detailed parts of the interpretive summaries. She and I both agree that I am getting stuck in details and it is time to pull back and look at the big picture. I asked if themes needed to be present in each transcript or summary and she said no. We discussed the nonlinear way to interpret and she reiterated that this is MY interpretation and I cannot extricate myself from the process. It is not objective, and it is me who is making the interpretations. Pulling back will help me to understand

more clearly the students' overall meanings about what VTS means to them and how it influences their nursing. I need to keep those questions in mind as I seek to expand upon the readers' understanding of this technique and how it informs my teaching. She and I will talk toward the end of May again after I pull back for a while. I am going to re-listen to some tapes to just listen and see if I hear anything different.

### **May 7, 2013**

After listening to interviews and rewriting transcripts, I am hearing two main themes emerge.

#### 1. Safety in learning

##### Subthemes

Place in learning (physical place of art museum as safe, peaceful, soft lighting, comfortable, neutral territory, no hierarchy, no uniforms)

Art as neutral subject (no judgment, all opinions valued, no experts, no one is more informed than others, all are given equal attention to their responses by neutral facilitator)

Scrutiny in learning (embarrassment for wrong answers, being made example of by instructor, eye rolling or sarcasm by clinical nurses)

High stakes learning (if a student makes a mistake in clinical or gives wrong answer or performs wrong in simulation, patient could die. No one will die over interpretation of art, so stakes are lower)

Art as imperfect. Medicine is scientific and quantifiable, not open to interpretation or judgment. Art is not perfect and interpretation is different for each viewer. They bring their own life experiences to their interpretation

## 2. Thinking and seeing differently

Subthemes:

Thinking out loud allows students to hear how others think, which helps them to observe how others draw conclusions, models thinking for them

Hearing others point of view to expand how they think or see

Looking at the whole and then the details and noticing more

How to analyze and give evidence for what I see

No right answer

Seeking clarification and providing evidence for what one sees. Providing details to enhance communication and understanding

Reflection about why one thinks the way they do and what stands out to one may not be noticed by another

Holding opposing views and considering others' viewpoints

### 5-23-2013

Phone call with Dr. Sims today. I sent her my Chapter 5 and we discussed my findings and analysis. She and I talked about how safety in learning could be phrased differently and she felt that it was appropriate to what I was hearing from students, so not to change it. I was worried that so much of my findings were about how students felt about nursing school and not feeling safe to speak out and not so much about VTS. She said that “It was the experience of VTS that opened that up for them, and that is what meaning it has for them, so it did what it was supposed to do”. We also talked about ambiguity and how practice as a nurse is often ambiguous and uncertain. Sherry also pointed out that often in nursing we talk about safety in nursing for patients, but perhaps

we as educators need to provide an environment of safety for students. She also talked about ambiguity and said that certainty can decrease creativity, but uncertainty can increase creativity and we should consider this when teaching.

We discussed the process of analysis and I reviewed how I had rewritten transcripts and tried to read across them and really listen to what students were saying. We talked about student voices and that future studies might include meeting with nursing instructors and preceptors to discuss what safety in education would look like for them. She said my analysis was right on target and I said it felt like my writing was very organic, as I had sat with the results and reread and re-listened so many times. She will look at the writing again and send a quick note, but suggested I carry on and felt like it was really important work! So relieved!!!!

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