A QUANTITATIVE INVESTIGATION OF THE RELATIONSHIPS AMONG
GRADUATE STUDENT SCHOLARLY WRITING, INSTRUCTOR FEEDBACK,
AND STUDENT TOLERANCE FOR AMBIGUITY

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PREFACE

The idea for this study evolved over about ten years of teaching graduate students. I tell my students in each new research class that a research problem is a ‘nagging’ that you just can’t shake—a wondering that keeps you up at night, or a thought that interrupts your conversations. This was one of those naggings of which I could not let go. I believe in fate, and I was led to an institution and a teaching position where I was given the opportunity to teach graduate research in a way that made this study a reality. I hope that this is just the beginning, and that I will continue to experience the naggings that will lead me to many future studies, each one making me a better teacher, and allowing my students to be more effective writers.
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ABSTRACT

In this quantitative dissertation I examined what graduate students at the master’s degree level and their faculty mentors know and understand about the scholarly writing process by investigating the practices and perceptions of a group of master’s level faculty members and graduate students from four distinct disciplines at a small, private university in the upper Midwest. Data were collected via four online surveys: (a) Professional Writing Survey, (b) Tolerance—Intolerance of Ambiguity Scale, (c) Feedback Survey—Student Version, and (d) Feedback Survey—Instructor Version. Fifty graduate students and fifteen faculty members participated in the study and provided data that were analyzed in order to determine relationships between several of the factors: what students perceive about scholarly writing at the master’s degree level, how students prefer to receive formative feedback as part of the scholarly writing process, and how their faculty mentors provide formative feedback and support, and how students’ tolerance or intolerance of ambiguity plays into what they know about themselves as scholarly writers. Student participants generally were confident about their scholarly writing abilities, were motivated to improve with assistance from their mentors, and held the belief that feedback was an important part of the writing process. These beliefs were present both in terms of providing formative assistance, as well as for guiding the overall learning in the process of scholarly writing. For the Tolerance-Intolerance of Ambiguity Scale, the mean score for the participants from the present study was greater than the benchmark of the original Budner (1962) scale. No clear correlation between a person’s ability to tolerate ambiguity and his or her attitude toward scholarly writing were found.
for the present study. Additional research on the relationship between the ability to
tolerate ambiguity and success in the scholarly writing process is indicated in the future.
CHAPTER ONE – INTRODUCTION

“To learn from experience is to make backward and forward connections between what we do to things and what we enjoy or suffer from things in consequence. Under such conditions, doing becomes trying, an experiment with the world to find out what it is like; the undergoing becomes instructions – the discovery of the connections of things” (Dewey, 1916, p. 140).

Background

Academic writing is often assumed to be much like learning to walk—some learn early and easily, others struggle and learn later; in the end, the assumption is that all will eventually learn this necessary skill to completing a graduate degree. I have taught graduate students for over fifteen years, and I have spent many an afternoon wondering why some students take to academic writing like a duck to water, while others struggle, needing much coaching and encouragement. I have continued to wallow in this question about what should be included in a typical graduate research and writing curriculum to insure that all graduate students would master the skill of academic writing. Most struggling graduate student writers whom I have supported do what is needed and, with a little luck and a lot of midnight oil, eventually complete the piece of scholarly writing that stands between them and the completion of their degree. Others, in spite of typical support and encouragement, struggle to complete this important piece of writing that is the culminating piece of evidence for many advanced degrees.

Writing a thesis or another piece of high stakes scholarly writing for the first time is challenging. Many graduate students whom I have supported at the master’s level bring
extensive professional and life experience to the graduate classroom, as well as clarity regarding their academic goals. In spite of these markers of professional preparation, many graduate students are unprepared for the rigors of scholarly writing that come with enrollment in a graduate program. In some ways, these graduate students are masters of their craft, yet they come to the experience of scholarly writing as novices. They have received little or no instruction that prepares them for the rigors of academic thinking and writing. DeLyser (2003) maintains that “they [students] are under-prepared in the skills and techniques that will enable them to present their findings effectively, to communicate the insights of their research. No one has taught them how to write” (p. 169). Graduate students are at times unable to utilize high-level thinking and writing with the necessary depth and complexity that is expected at the post-graduate level, or to organize material so that it is both coherent with full development and detail, at the same time utilizing full control over diction, syntactic variety, and transitions (White, 1994, as cited in Alter & Adkins, 2001). At the time of the present study, only one of the four programs from which student participants were drawn, the Master of Science in Nursing Program, provided a course for beginning master’s students that included strategies for successful scholarly writing at the graduate level.

It occurred to me as I wondered about how graduate students approach research and writing that being unprepared for research and writing at the master’s degree level might have been only one determinant for the difficulties that ensued for some students whom I have mentored over the years. Some students seemed unnerved by the novel expectations, and behaved as if they were experiencing a kind of culture shock as they navigated the unfamiliar waters of research and writing at the graduate level. One
characteristic that surfaced in my research was that of ambiguity tolerance. One’s tolerance for ambiguity can be essential as one begins to navigate the often messy waters of research and writing at the master’s degree level. The trait of ambiguity tolerance allows the researcher to embrace his or her curiosity, rather than make premature decisions without reflection or consideration of alternate paths. It also allows a student to accept that the appropriate course of action may not always be apparent, and that the questions that emerge are often opportunities for growth that may have been missed if one chose the first course of action that emerged. Being tolerant of ambiguity as one approaches scholarly writing at the master’s degree level allows one to believe that writing multiple drafts of a piece is an expected part of the writing process, and that feedback can, in fact, be seen as a gift that is provided in the spirit of growth. Each difficulty that is faced by one who is tolerant of ambiguity can be seen as one of many opportunities for improvement on the path to research and writing mastery.

Several adult learning theorists (Brookfield, 1997; Cranton, 2006; Knowles, 1978; Mezirow, 1991; and Mezirow & Taylor, 2009) have written that adult learning and its underlying theory is a special kind of learning that requires special attention. Richey (1992) defines adult learners as “people over the age of eighteen in an instructional situation, whether formal or informal” (p. 10). For adult learners, life changes have implications “in terms of learning style, the motivation to learn, and the capacity to learn” (Richey, p. 10). In order for graduate students to become successful as adult learners, they must learn in ways that allow them to construct meaning and develop new knowledge and skills that can be useful in their daily practice.
Achieving a level of independence is not something that materializes quickly, but rather a skill that must be developed over time as part of the relationship between a mentor and his or her mentee. Vygotsky’s (1978) socio-cultural theory of learning provides one useful way to conceptualize the help that graduate students need as they progress towards independence. To view graduate students as novice scholarly writers and their mentors as the experts allows us to begin to build an understanding of the type of curricula that are best suited for the growth and success of this important relationship. One support that the mentor can provide for the mentee is scaffolding. Scaffolding is a teaching process whereby the teacher, or mentor, links together several strategies that form a support system for skill development, in this case, the development of scholarly writing. “As independent writers develop, the scaffold or support is decreased and then removed. The theoretical underpinnings of this framework were based on Vygotsky’s (1962) social development theory” (Gazza & Hunker, 2012, p. 281). The mentor (sometimes referred to as the supervisor, chair, or director) becomes an agent for scaffolding the learning of the student as part of the process of reaching a level of independent scholarly writing.

Statement of the Problem

As defined in an article by Carlson, Irons, and Monk (2010), academic writing includes the skills that are utilized in the writing of formal papers for course assignments, as well as theses, dissertations, and articles or proposals for journals and/or professional conferences. Scholarly writing, which is synonymous with academic writing for the purpose of this paper, has been distinguished from other genres of writing by: (a) the evidence of critical thinking, (b) the need for supporting one’s statements with scholarly
references, (c) the expectation that the product complies to a particular style of formatting, and that (d) the process itself supports the development of students’ ability to communicate their ideas in written form (Björk, & Räisänen, 1997, as cited in Diezmann, 2005). Aitchison and Lee (2006) asserted that writing at the graduate level often is seen as completely separate from knowledge production. As a result, many graduate courses of study continue to instruct as though the acts of conducting research and of writing about one’s research remain in parallel spheres. Badley (2009) supported this dichotomy when he asserted that:

It is as if first comes the research, an active creation of new knowledge, and then comes the writing, a relatively passive assembling of what had already been achieved. It is as if researching and writing were two entirely separate processes. (p. 209)

Academic writing at the master’s level is a complex and novel undertaking for many students. Graduate students at this level often express their frustration and indicate that the expectations of the faculty are vague and difficult to follow. Sallee, Hallett, and Tierney (2011) argue that graduate students are typically expected to know how to write; those who write poorly are occasionally given individual support and sometimes penalized, but little in-class attention is given to help students continue to develop and refine their writing skills. Rose and McClafferty (2001) argued that writing is an activity that “consumes a great deal of our time, both in the production of scholarship and in the teaching and mentoring of students . . . but there is little professional discussion of what we can do to help our students write more effectively” (p. 27).

When DeLyser (2003) posed the question, “When was the last time you had a writing class?” to graduate students in the United States, a common answer was “freshman comp” (p.169). Graduate students are assumed to have the necessary
knowledge, skills, and attitudes to write in a scholarly fashion, though many have not experienced any formal writing instruction in years, if at all. “Despite the fact that they may have been meticulously prepared for undertaking their research . . . no one has taught them how to write” (DeLyser, p. 169). Thus, it should be not be a surprise that a significant number of graduate students at the master’s level find the task of scholarly writing to be complex and demanding, even overwhelming.

When writing at the graduate level, writers must: (a) integrate disparate ideas, (b) synthesize perspectives, and (c) extend theory. The genre of scholarly writing demands higher-level construction skills and perspective-taking, as well as attention to accuracy, voice, and audience. Students at the graduate level recognize that writing outcomes often account for a much greater proportion of evaluation criteria than in their undergraduate years (Lavelle & Bushrow, 2007), which heightens the stakes of the writing process. These stringent demands and consequences, in conjunction with the dearth of adequate teaching that leads to the learning of such writing, provide the impetus for this proposed study.

In an environment where success is often determined by one’s ability to write in a scholarly fashion, students must be provided with all of the skills that contribute to successful scholarly writing, including an ability to develop a level of tolerance of ambiguity that will allow them to prosper when things are messy, and succeed when the road is circuitous. The stringent demands and consequences, in conjunction with the dearth of adequate teaching that leads to the learning of such writing, provide the impetus for this proposed study.
Context of the Study

This study will build on the theory of socio-cultural learning, which is also known as social development theory (Vygotsky, 1978); the theory provides a pedagogical framework for understanding the varied factors that affect graduate writing. As a constructivist theory of learning, the social development theory works well to examine the formative learning processes and formative feedback and assessment required to teach scholarly writing. The locus of control in a social-constructivist system shifts somewhat away from the teacher, who becomes more of a guide than an instructor, but who assumes the critical role of shaping the learning activities and designing the structure in which those activities occur (Anderson & Dron, 2011). Vygotsky's theory of learning and development promotes the belief that most of what a person knows about language (including written language) is learned through use in the presence of others. The most popular Vygotskian idea in Western education has been that of the Zone of Proximal Development (ZPD), where learners extend their learning by their exposure to those individuals more experienced in the desired skill. Vygotsky (1978) claimed that learning leads cognitive development when an individual is operating within his or her zone of proximal development. This zone represents the learner’s potential for development beyond his or her current level of independent functioning. Vygotsky believed that learning occurs as the individual gradually internalizes higher-level thought processes that are activated through social interaction with more capable peers.

One way of constructing meaning is through learner-instructor interaction, as is often a part of the mentor/mentee relationship in the supervisory arena of graduate writing. Optimal learning is promoted when students can work alongside a *more*
knowledgeable other such as a mentor, a teacher, a more skilled peer, or another more expert guide who is able to offer scaffolded support and direction. Scaffolding is Vygotsky's (1978) term for the flexible supports and structures that are offered to novices by a more knowledgeable other to assist the novice into the Zone of Proximal Development. The Zone of Proximal Development is defined as the place where a learner can accomplish a task with the help of a more experienced peer or mentor. (as cited in Liechty, Liao, & Pegarraro-Schull, 2009). Scaffolding allows the more knowledgeable other to provide the support to beginners or unskilled learners as they develop the skills to self-regulate, or self-direct their change.

The theory of self-regulated learning, which has its foundation in the social cognitive theory of self-regulation (Bandura, 1986), will frame the use of formative assessment and feedback to empower students as self-regulated learners. Bandura (1991) believed that “self-regulatory systems lie at the very heart of causal processes” and that they “provide the very basis for purposeful action” (p. 248). When adult learners can regulate aspects of their thinking, motivation, and behavior during learning, their ability to move from novice to more expert writers will ensue (Pintrich & Zusho, 2002). Self-regulated learners monitor, direct, and regulate actions in the process of self-improvement (Paris & Paris, 2001). Self-regulated or self-directed learning (SDL) carries the assumption that adult learners take on more responsibility for their learning than do younger, more traditional college students through the scaffolding that is provided by their instructors. By utilizing teaching strategies that promote self-directed learning, teachers can enhance the learners’ empowerment. By taking ownership of their learning,
theoretically, adult, self-directed learners *direct* their learning by choosing how and what to learn (Brookfield, 1997).

Also critical to the foundation of the proposed study is Mezirow’s theory of transformative learning (1991). With his theory of transformative learning (Mezirow, 1991; Mezirow & Taylor, 2009) Mezirow sought to understand and explain the way adults learn and to describe how adults make meaning of their experiences. The theory of transformative learning posits that when the learners’ assumptions are shaken and they are forced to challenge those assumptions, to understand from where they originate, and to break out of those previous frames of understanding, an important and often transformative period of growth occurs (Mezirow, 2000).

Transformative learning is closely tied to constructivist learning. Candy (1989) identified a number of assumptions that became the foundation for the constructivist approach, and that also underlie the theory of adult learning. Some of these assumptions include that: (a) people participate in the construction of reality; (b) construction occurs within a context that influences people; (c) construction is a constant activity that focuses on change and novelty rather than fixed conditions; (d) understanding is socially constructed, not derived from observation; (e) the subjects of research should be considered *knowing* beings; and (f) the locus of control resides within the subjects themselves, and complex behavior is constructed purposefully (Candy). Mezirow (1991) posits that the role of the adult educator (for this study defined as *the mentor*) is one of “empathic provocateur and role model” (p. 206). He adds, “when the (adult) learner is confronted with a disorienting dilemma, the educator can focus on the extent and quality of the learner’s premise reflection and the resulting transformative and reflective action”
The discomfort that an adult learner experiences when thus confronted by a novel experience allows the mentor to encourage a period of reflection, which leads to problem-solving, and ultimately to the transformation that occurs when the learner is able to see things differently and incorporate the change into his or her fund of knowledge.

Harris (n.d.) includes both reflection and ambiguity tolerance in the definition of critical thinking, particularly as it relates to adult learners. The ability to reflect upon the information that one takes in as an adult learner, along with the capability to tolerate the ambiguity that ensues in the transformation process, allows students to suspend prior assumptions and remain in a state of limbo, so to speak, as they reformulate and reintegrate new knowledge in the process of transforming their beliefs.

From the Vygotskian perspective (1978), the students in this quantitative study were at the early stages of scholarly writing development when reflective awareness and deliberate control of their scholarly writing skills begin to develop. Because they were not at a mature level of independently internalizing their scholarly writing skills, they were poised to benefit from instruction that included a high level of social interaction with their mentors. Scholarly writing pedagogy that approaches writing as both a social and cognitive process “positions the student squarely in the midst of the world of things, ideas, history, and people and invites him or her to use writing as a means to participate in that world” (McCallister, 2004, p. 145).

In summary, this section has provided an overview of the relevant notions of three theoretical perspectives—social development theory (Vygotsky, 1978) and the belief that learning develops as a result of interaction with more capable peers, self-regulated learning (Bandura, 1986) which assumes that adult learners regulate their thinking and
behavior as they move from novice to more expert writers, and transformative or
constructivist learning and the use of the empathic provocateur (Mezirow, 1991). Each
contributes to a system of assisted learning that becomes the broad foundation for the
study. Assisted learning has its roots in constructivist teaching, and makes use of
pedagogies such as mastery learning, faculty mentoring, and scaffolding, and provides
support from the more developed other, the mentor, while the student develops the skills
that support scholarly writing (Mullen, 2006).

**Purpose of the Research**

The general purpose of the present study was to investigate and compare certain
factors that contribute to the successful scholarly writing of graduate students at the
master’s degree level, and the relationships that exist among several variables, including
students’ tolerance or intolerance of ambiguity, the role of feedback in the teaching and
learning process for scholarly writing, and the students’ age, gender, and program of
enrollment. The specific goal of this descriptive study was to determine what graduate
students and their instructors at the master’s level know about the process of teaching and
learning scholarly writing, as well as how they understand themselves and their role in
the process of scholarly writing. Additionally, I specifically examined the role of
feedback as a scaffolding tool in the instructional process, and evaluated for its
contribution to students’ and faculty members’ perceptions regarding writing
improvement at the graduate level.

**Research Questions**

Based on the theories of social cognition, self-regulation, and constructivism, and
an assumption that assisted learning would provide the scaffolding to novice writers, four
research questions were developed to examine student ideas about scholarly writing at the graduate level. The primary research question (RQ) that guided this quantitative study was:

RQ₁: What correlation exists between the trait of ambiguity tolerance and the assumptions that graduate students have about their scholarly writing?

I also examined the expectations and beliefs about feedback as a primary instructional strategy for the scaffolding of the skills that are needed for successful scholarly writing. My intent was to examine how instructors provided feedback, and how graduate students perceived and utilized instructor feedback in the process of developing improved writing skills at the graduate level.

RQ₂: How does instructor feedback relate to the ideas that students have about their scholarly writing at the graduate level?

RQ₂ₐ: What formative feedback strategies do graduate faculty mentors utilize in the teaching of scholarly writing at the master’s degree level?

RQ₂ₐ: What formative feedback strategies do graduate students prefer as writing support for the scholarly writing process at the master’s degree level?

**Definition of Terms**

Several terms are defined as follows for the purpose of this study:

- **Academic Writing** (synonymous with scholarly writing for the purpose of this paper) writing that requires the need for supporting one’s statements with scholarly references, is based on the expectation that the product complies to a
particular style of formatting, and which involves a process that supports the development of students’ ability to communicate their ideas in written form.

- **Socio-cultural Learning Theory** was defined as a learning theory whereby social interaction plays a fundamental role in the process of cognitive development.

- **More Knowledgeable Other (MKO)** was defined as anyone who has a better understanding or a higher ability level than the learner, with respect to a particular task, process, or concept.

- The **Mentor** in the proposed study assumes the role of the more knowledgeable other. A thesis chair, a faculty member, instructor, or a mentor can fill this role.

- **Self-regulated Learning (SRL)** is defined as the degree to which an individual is able to regulate certain aspects of his or her thinking.

- **Tolerance for Ambiguity (TA)** is defined herein as the willingness to accommodate or adapt to encounters with unfamiliar, ambiguous, complex, or incongruent cues or ideas.

- The **Zone of Proximal Development** is defined as the place where a learner can accomplish a task with the help of a more experienced peer or mentor.

- **Graduate Students** (for the purpose of this proposed study) refers to students enrolled in a program to earn a master’s degree.

- **Feedback** is defined herein as information from instructors or peers that was provided to students about written assignments. Feedback includes both information about the product (the paper or the assignment) and the process of writing.
CHAPTER TWO – REVIEW OF LITERATURE

Introduction

In general, broad support for courses or programs to support the development of scholarly writers at the master’s level has been largely absent from graduate education. Although many instructors who engage in the teaching of writing to graduate students may believe as though the paucity or absence of good writing by graduate learners is a recent problem, evidence suggests that the problem has been discussed widely in the literature over many decades. In 1977, Leming sought support for his belief that graduate students were ill-prepared for the rigors of professional survival. He stated that “here is a sense in which the experience (scholarly writing) teaches the graduate student home run writing skills when in fact bunt singles and stolen bases are more appropriate styles for the publishing game” (p. 9). Thirty-five years ago, at the time that Leming wrote these words, universities had begun to utilize graduate courses to support the developing writing skills of graduate students at the master’s level. Then, as well as now, it was and is assumed by many instructors that the writing skills of graduate students were developed to a level that was, and is, adequate for the requirements of a master’s program.

The research provides evidence that there is a gap between what graduate instructors of writing expect and what graduate students are able to produce (Caffarella & Barnett, 2000). In order for graduate students at the master’s degree level to develop writing proficiency, their instructors must “be very clear about the purposes and benefits
of a strong and sustained critiquing process and assist students in learning how to both give and receive feedback” (Caffarella & Barnett, p. 39). In addition, students benefit from an awareness of the impact of ambiguity tolerance, as the degree to which a student tolerates situations of ambiguity can be a strong factor in how the student progresses in the process of becoming a scholarly writer.

For the purpose of this study regarding how ambiguity tolerance and instructor feedback relate to ideas that students have about scholarly writing at the graduate level, I reviewed several areas of existing literature. These areas included: (a) critical thinking as a necessary component in the development of scholarly writing skills, (b) teaching scholarly writing at the graduate level, (c) the mentor/mentee relationship as a foundation for the development of scholarly writing in students at the master’s level, and (d) the role of self-directed learning and feedback in the development of scholarly writing skills.

Social Cognition and Critical Writing

Vygotsky (1978) believed that social interactions enable humans to develop advanced thoughts through repeated interactions with more experienced individuals in the community. Language, he asserted, resides at the heart of these interactions; “it is the container holding and passing thoughts from one individual to another” (Vanderburg, 2006, p.375). Although the roots of Vygotsky’s theory center on the development of language, much of what he theorized speaks to the process of writing instruction. “Writing is a synthesis or pulling together of ideas, images, disarrayed facts, and fragments of experiences” (Everson, 1991, p. 11). As teachers of writing, we must acknowledge this interplay of “inner voices and social contexts that are ever-combining
to form written discourse. Only then will our student writers be free to experiment and mature as much as possible along the way” (Everson, p. 11).

Vygotsky believed that students actively construct their knowledge. In opposition to the theory that would put the student in a passive role, somewhat as a vessel waiting to be filled by the teacher, he thought of a student as an active learner who builds upon his or her prior knowledge, using these experiences to make new meaning of his or her new experiences. He also believed that written language actively grows out of one’s oral language and, in turn, becomes a container of knowledge transferring ideas and experiences. Vygotsky (1978) posited that social interaction is a mechanism for individual development; in the presence of a more capable participant (the mentor), the novice (mentee) is drawn into the space of the expert’s processes for problem solving. The mentor guides, supports, and shapes the actions of the mentee, who then internalizes the expert’s processes in the creation of new knowledge.

The concept of co-creation of knowledge is based on this assumption that a less experienced learner utilizes the expertise of the more advanced learner in order to expand his or her learning. Vygotsky (1978) introduced the term Zone of Proximal Development, or ZPD as the place where one can accomplish a task with assistance from a more experienced learner. His theory of intellectual development was the first to recognize two distinct levels of learning – actual learning and potential learning. His use of the zone was a way to determine one’s learning potential by viewing a place where learners are able to complete a task with assistance. In this way, one can envision that teaching writing at the graduate level could be accomplished effectively through collaborative intervention (the social basis of learning) or apprenticeship. LeGrand-Brant, Farmer, and Buckmaster
(1993) described the cognitive apprenticeship process as a five phase model that includes: (a) modeling—behavioral and cognitive, (b) approximating—trying out the learning, (c) scaffolding, (d) facing—scaffolding and prompts gradually decrease as the learners’ abilities increase, and (e) self-directed learning—learners practice and adapt from their learning and receive assistance only when requested. “Graduate students also move through and among these phases as they work with their major professors as teaching assistants and as researchers, writing theses and dissertations” (Hansman, 2001, p. 47).

Dewey (1916) held the belief that the “social environment . . . is truly educative in the effects in the degree in which an individual shares or participates in some conjoint activity” (p. 26). Aitchison’s (2009) results support the value of writing and meaning-making as social activities relevant to a massified higher education system, with diverse student populations, and increasing demands for new pedagogies that attend to the changing needs of research candidates. Through the lens of Vygotskian theory, learning is seen as preparing the learner for new stages of development. At some point, the accumulated learning amassed by an individual becomes more than the sum of its parts by a cognitive process of reorganization and reintegration. At this point, learning is taken to a new level that enables the learner to understand, form perceptions, and be enlightened from a new perspective (Brookfield, 1997).

This important process of reintegration and restructuring allows learners, particularly adult learners, to experience meaningful learning that is based on but stronger than the experiences from the individual’s past. It is the ability to scaffold the experiences (provide supports as needed, followed by gradual release of responsibility to the learner) that leads to a wider range of possibilities and more engagement with the environment,
and ultimately to a broader and deeper level of cognition. Scaffolding helps the learner develop new ways of knowing, thinking, or doing through interactions with individuals who are already using higher mental activities (Fisher & Frey, 2008).

**Teaching Scholarly Writing at the Master’s Degree Level**

Although certainly there is no uniform model for the teaching of the scholarly writing process, certain similarities appear in many writing programs. Some of these practices include: (a) training in how to conduct a literature search; (b) learning to read, understand, and assess scholarly works; and (c) learning the writing style that is expected of the program, typically either that of the American Psychological Association (APA) or that of the Modern Languages Association (MLA). Strong correlations exist between effective thinking and effective writing, and Wellington (2010) believes that writing is, in fact, part of the thinking process. In their study of doctoral students in an educational leadership program, Caffarella and Barnett (2000) noted that “what is shocking to faculty is that many graduate students not only do not write like scholars, but they also may not think like scholars” (p. 39). These researchers believed that the formal teaching of the scholarly writing process is a necessary development in the future of graduate education in order to envision changes in the writing skills of students who seek post-graduate degrees. Caffarella and Barnett (2000) asked participants to keep a writing journal, to complete reflection papers that summarized their experiences with the scholarly writing process, and to both give and receive feedback on their writing. Students reported that the major benefit to this structured program was the learning that they experienced from both giving and receiving feedback. More specifically, students reported a significant increase in their writing confidence because of this process, and a better understanding of the
writing process due to the expectation of multiple drafts that reduced their anxiety regarding the need for producing a perfect draft the first time. Wellington (2010) shared similar thoughts when he stated that:

My view is that we need to promote and encourage in students the view that writing is part of the thinking process, and that writing should be seen as ‘knowledge-developing’ rather than knowledge telling. This implies that writing should start on day one of the post-graduate journey and is a means to develop thinking and understanding as opposed to a process which simply transfers thoughts from brain to paper; that the written piece evolves from a mental state to a physical one. (p.148)

Bereiter and Scardamalia (1987) were some of the early contributors to the research on the recursive nature of writing and its implication for writing success. Whereas writing had been seen previously as a linear process that progressed from pre-writing to writing to re-writing, these researchers saw the process of writing, and more importantly the process of teaching writing, as one that was a series of problem-solving tasks. More advanced writers attempt to solve the content problems in their writing by using such tasks as planning, generation, and reviewing. The recursive nature is thought to be included in many instructors’ writing pedagogy, but, as reported by Lipson, Mosenthal, Daniels, and Woodside-Jiron (2000), the use of the recursive process varies among those who subscribe to its importance in the teaching of writing.

Another common belief about graduate research and writing stems from the idea that research and writing are separate entities. Badley (2009) outlined a structure for the teaching of scholarly writing that parallels Vygotsky’s (1978, 1986) beliefs. Badley proposed a model that includes a set of activities such as: (a) constructing, (b) deconstructing and reconstructing knowledge, (c) disconnecting and reconnecting concepts, and (d) shaping and reshaping ideas. This model allows for a progression from
the expectations of undergraduate writing, which include comprehension and the ability to articulate opinions, to a place where graduate students can eloquently articulate “the depth and breadth of their understanding” (Harris, 2006, p. 136).

The use of ongoing individual feedback on writing from a supervisor is distinctive in the process of postgraduate writing supervision. Providing ongoing feedback assumes a cognitive apprenticeship model of teaching and learning within which the teacher models, scaffolds, and coaches the student in the development of new knowledge. “Apprenticeship embeds the learning of skills and knowledge in their social and functional context” (Collins, Brown & Newman, 1989, p.454). By developing a culture of expert practice where the expert (the mentor) identifies and represents to students the cognitive processes they engage in, students can observe firsthand the cognitive processes used to solve problems. Drawing students into a culture of expert practice in cognitive domains involves teaching them how to think like experts.

Using the apprenticeship model provides the foundation for the mentor/mentee relationship in the teaching of scholarly writing. This relationship is based on the belief that beginning academic writers “do not understand that the recursive nature of academic writing entails initial messiness and failure because they see only the finished product of other academics’ work and not the process by which that work came to be” (Cameron, Nairn, & Higgins, 2009, p. 281). For beginning scholarly writers, the messiness of the recursive process can be daunting, as their preferred method of writing may be one that is much more rigid and linear. It is not until academic writers have substantial experience, appropriate support, and applicable feedback that they believe that the messiness brings ideas into being and results in scholarly writing success. It is only at a more expert level
of academic writing that students can “retain the author’s ideas, the words of the text itself, and the imagined reader’s interpretation of the text” (Kellogg, 2008. p. 5).

Carter (1990) describes the process of growth from a novice to an expert as a five-stage process that includes: (a) stage one, where performance is based on a set of global strategies; (b) stage two, where the novice acquires more sophisticated strategies by applying the general strategies in specific situations; (c) stage three, where the novice becomes competent through extensive experience in the domain; in this stage the learner becomes markedly less reliant on general strategies and begins to rely on decision-making procedures that involve choosing between simply applying a strategy or responding to the variables of the situation; (d) stage four, the learner becomes proficient and relies more on know-how and intuition; and (e) stage five, expertise, where the learner’s performance becomes fluid and intuitive. Bereiter and Scardamalia (1993) began to study the differences between the processes used by novice writers and those used by more expert writers. Their findings indicated that the less-skilled writers more often used a process that was described as a retrieve and tell approach. Significantly different from the approach used by more expert writers, the novices’ approach was described as a knowledge-transforming model, as opposed to that of a knowledge-creating model.

In a fairly recent study by Lavelle and Bushrow (2007), graduate students completed the Inventory of Processes in College composition, which measures factors that are likely to describe beliefs and strategies about scholarly writing. This study was considered particularly relevant for the foundation of the present study due to the nature of its participants. The authors described their participants as typically in their 30s,
working or teaching full-time, often raising children, and “focused on dealing with the complexities of your mid-adult life in an increasingly complex society” (p. 817). However, although working adult students who are enrolled in post-graduate study often come with a degree of self-understanding in terms of their role in society and their place in the world of work, their attitudes and beliefs about writing may be far less well-developed (O’Connor & Cordova, 2010). Lavelle and Bushrow (2007) indicated that students who had low self-efficacy regarding their academic writing were likely to report such emotions as fear, doubt, and worry, and were likely to have experienced writer’s block. Another group of writers that emerged from this study were described as those who were task-oriented, those who were likely to have an approach to their writing that included “just getting it over with” (p. 817). These writers were described as linear in their writing process and likely to want to adhere to a pre-determined set of writing rules.

Although there is sufficient evidence for a need to include the teaching of scholarly writing at the graduate level, there is also evidence from students that this need is not being met. Whitehead (2002) asked ten student nurses questions that provided information regarding: (a) the meaning of academic writing; (b) their expectations regarding their own academic writing; (c) their opinion regarding how the skills of academic writing were taught or facilitated in their program; and (d) their progress toward achieving the level of academic writing that was expected by their program. His findings indicated that these students generally believed that they were constrained by the lack of emphasis and input placed upon this discipline. “They tended to feel that what input there was, was crammed into the early part of the course and not addressed again in any real depth” (p. 501). In addition, in terms of ‘acquiring the skills of academic
writing’, the data bore out that students felt as though academic writing was “an obstacle to overcome” (p. 501). Finally, and possibly most disturbing, Whitehead reported that “the part of writing that is linked to critical thinking and analytical process appeared to be one of the most problematical aspects of the work encountered by the students in this study” (p. 501). On the one hand, students reported that they felt constrained by the strict guidelines required for scholarly writing, and on the other hand reported that they felt unprepared to utilize critical thinking and writing in the way that was necessary to analyze and synthesize existing content into required pieces of scholarly writing.

Finally, in a study of the various stages of scholarly writing at the graduate level, Rocco et al. (2003), a group of faculty and student researchers separated students’ scholarly writing levels into the following: (a) Mechanical—writing as a series of tasks to be completed, which provides a comprehensive reporting of the literature but lacks an understanding of the use of the literature review in the research process; (b) Technical—slightly higher order writing that includes the mechanical steps, but also a purpose and rationale for these steps. Students at the technical level understand that these are a vital part of academic writing; (c) Committed writing—this type of writing has same status as technical writing, but includes a passion for and then a commitment to the topic. Combining the technical skills with the inspiration or passion raises the writing to a level of writing that is both conscious and cautious; and (d) Beginning scholarly—once the other three levels of writing are in place for a student scholarly writer, he or she is prepared for beginning scholarly writing (p. 144). When students have a grasp of the first three requisites for scholarly writing, state the authors, they are able to ignite the passion
and combine it with the technical and mechanical skills in a way that makes scholarly writing a possibility, as opposed to a struggle.

Returning to connections made earlier between the processes of language and writing, a body of research validates the connections between talking and writing (Leander & Prior, 2004). Kamler and Thomson (2006) opined that the use of writing groups is legitimate component of the writing and research process, as well as a method for developing a culture of writing. Additionally, Aitchison (2009) reported that students who joined writing groups both for the purposes of receiving and giving feedback found the experience to be a valuable strategy for learning to write.

The literature on the processes for teaching scholarly writing at the graduate level suggests that, although there are some similarities across writing curricula, there is no uniform model for teaching writing at the graduate level. The research on adult learning suggests that an apprenticeship model of teaching and learning of scholarly is based on Vygotsky’s (1978) ZPD; this model moves learners from novice to expert writers using scaffolding and feedback as two of the primary strategies.

**The Role of Feedback in the Process of Teaching and Learning Scholarly Writing**

Teachers of scholarly writing may well question the impact of feedback in the process of learning to write. As just asserted, the apprenticeship model uses feedback as one of two primary strategies. Hattie and Timperley (2007) reported “surprisingly few recent studies have systematically investigated the meaning of feedback in the classroom” (p. 81). Limited support (Crisp, 2007) exists for the belief that students respond to the feedback that they receive and incorporate the feedback into future drafts. Gazza and Hunker (2012) posit that feedback is frequently provided in graduate courses.
when an assignment of piece of scholarly writing is turned in. The result is often a case of *too little too late*, as summative feedback is seldom utilized in a constructive fashion after carefully reviewing and applying the feedback to improve the written product.

Higgins, Hartley, and Skelton (2002) provided a more contemporary view of how students regard feedback on their written work. “They expect feedback because they believe they deserve it—if they have made an effort to produce the assignment, it is only fair that the tutor makes an effort to provide feedback” (p. 61). These students reflect their belief that as consumers of the service of higher education, they deserve more, and that the instructor has a duty to provide feedback.

Due to the high stakes of scholarly writing at the graduate level, summative feedback is not considered to be an effective means for guiding the writing process. In contrast, formative feedback given in an effort to maximize the learner’s success is considered to be an integral part of writing instruction. Topping, Smith, Swanson, and Elliott (2000) shared that formative feedback is most helpful, as it “yields rich and detailed qualitative feedback information about strengths and weaknesses, not merely a quantitative mark or grade” (p.150).

High stakes writing, such as a master’s thesis, requires written feedback on drafts throughout the process. In order for the practice of feedback to take on instructional purpose, feedback must provide information specifically relating to the task or process of learning that fills a gap between what is understood and what is aimed to be understood and it can do this in a number of different ways (Hattie & Timperley, 2007, p. 82). Caffarella and Barnett (2000) reported that students both want and need feedback on academic writing assignments, and they perceive that receiving feedback helps them to
understand the academic writing process. These findings align with those of a study by Torrance, Thomas, and Robinson in 1994. In this follow-up to a previous study, the researchers reported that student choice in instructional strategies and feedback played a critical role in the success of the doctoral students in the study, and that teaching students to both give and receive feedback in the scholarly writing process was needed.

In 2011, Hall, Hanna, and Quinn conducted a study regarding pharmacy students’ views on and satisfaction with feedback from their instructors. The survey research design utilized a 41-item electronic questionnaire that was completed by 331 students. Of the total student responses, slightly over 30% stated that they were satisfied with the feedback they had received from their instructors. The student respondents were 70% female and 30% male, which the authors stated was similar to the overall gender makeup of the pharmacy department. In the comments that were provided, students were particularly dissatisfied with “inconsistencies in provision of feedback” (p. 3) and in the amount, the quality, and the timing of the feedback received. Several of the questions on the survey paralleled questions on the survey tool that was utilized for the present study. An overwhelming 98% of the respondents either agreed or strongly agreed that “receiving feedback was an important part of their degree program” (Hall et al., p. 3) and over 90% of the students agreed or strongly agreed that an important feature of instructor feedback was to guide them in their quality of work. Finally, nearly all of the respondents (99.4%) agreed or strongly agreed “that feedback should tell them how to improve performance” (Hall et al. 2011, p. 3). The majority of respondents (99.4%) strongly agreed or agreed that feedback should tell them how to improve performance.
**Feedback efficacy.** If we are to assume that students who are engaged in the process of learning how to write in a scholarly fashion will benefit from feedback, we must be certain that the feedback that is provided is effective and will serve the students in this process. Feedback, in this sense, is a form of communication; the instructor communicates by providing help that is based on his or her expertise.

Researchers have investigated many different forms of feedback, such as the types of feedback, feedback frequency, the method of providing feedback, and the timing of feedback. A central argument that has been commonly held is that in higher education, formative assessment and feedback are best used to empower students as self-regulated learners (Nicol & MacFarlane-Dick, 2006). Bitchener, Basturkmen, and East (2010) examined the following areas in their study: (a) content knowledge – accuracy, completeness and relevance; (b) genre knowledge – its accuracy, completeness and relevance; (c) rhetorical structure and organization; (d) argument development – coherence and cohesion; and (e) linguistic accuracy and appropriateness (p. 83). An interesting finding in the study was that although thirty-three of the thirty-five instructors who were interviewed reported that they provided linguistic feedback, not all were in agreement that this was an appropriate practice. This raises the question whether providing this type of feedback is effective. On the one hand, the instructors appeared to have mixed feelings about the fact that such feedback would be necessary when dealing with graduate students. On the other hand, in the absence of providing such feedback, what is the impact on the potential learning of the student? Getzlaf (2009) and a group of researchers specifically investigating feedback efficacy in an online course, provided
additional points to consider when structuring the type of feedback to utilize in the scholarly writing process.

The Getzlsf (2009) study provided a chart that summarized the findings from their study of 30 graduate students from two distinct programs. Each of the themes and the associated summary provides insight into the elements that are seen as contributing to the efficacy of feedback in a given course. The results are shown in Table 2.1.
Table 2.1 *Individual Themes and Summaries* (Getzlaf et al., 2009, p. 8)

<table>
<thead>
<tr>
<th>Theme</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Involvement and Individuation</td>
<td>Effective feedback is a mutual process involving both student and instructor.</td>
</tr>
<tr>
<td>Being Positively Constructive</td>
<td>Effective feedback provides constructive guidance that builds confidence.</td>
</tr>
<tr>
<td>Gentle Guidance</td>
<td>Effective feedback guides through explicit expectations and ongoing coaching.</td>
</tr>
<tr>
<td>Timeliness</td>
<td>Timelines for effective feedback are mutually established and met.</td>
</tr>
<tr>
<td>Future Orientation</td>
<td>Effective feedback is applicable to future situations</td>
</tr>
</tbody>
</table>

Assuming that writing is a form of learning, then the feedback provided on each of the drafts of a piece of high stakes writing has the potential to lead to a process of discovery for the student. In order to achieve this level of feedback, Straub’s (1997) study provided insight regarding the individual who provides the feedback. This person is perceived to be more effective when he or she takes on less of a judgment role and more of the roles of coach, mentor, and guide. In this way, the feedback that is provided has the distinct possibility of providing a contribution to the development of scholarly writing in the recipient of the feedback. In this study, student participants “preferred and found most useful comments framed in moderate modes—comments that provided direction, did not insist on a certain path for revision, and came across to them as helpful” (1997, p. 103). Students need to believe that the feedback is provided in such a way that it encourages them to work productively on their writing. Participants in one study (Eyres, Hatch, Turner, & West 2001), particularly those who had limited experiences in scholarly writing, reported that they preferred to receive positive and encouraging feedback mixed
with the necessary critical feedback. Positive feedback can serve as a type of encouragement, building the writers’ confidence, and providing a belief that his or her writing is accepted in spite of its flaws. Positive comments that provided little or no explanation of what was good were perceived to be minimally helpful. One student in this study responded with the following:

The most helpful writing experience has been with the instructor who made it very clear that she considered writing a process, and she would view multiple drafts. This was a very structured writing experience. She gave us the framework that she wanted us to attach our research question on, and how we would go about making it coherent . . . I don't know, some instructors may say that was too structured, but to someone who is learning, it was helpful to have that kind of a framework. I know the process now. (p. 150)

Caffarella and Barnett (2000) reported that the respondents in their study expressed appreciation for in-depth feedback that stimulated their thinking, improved their arguments, and helped them to connect ideas. Regarding the frequency of feedback occasions, students perceived that receiving ongoing feedback helped build their confidence in writing academic papers. Eyres et al. (2001) reported that their students appreciated the feedback that encouraged their thinking, was thought provoking, pushed the boundaries of their thinking, and allowed them to see the bigger picture.

One belief (Duijnhouwer, Prins, & Stokking, 2012) presented in the literature is that the first step in the feedback process is the need for reflection, which parallels the theory of transformative learning (Mezirow, 1991). The student, having received feedback on a piece of writing, must (a) accept that the text is not yet what it should be, (b) seek solutions for rectifying the differences between the present writing and the expected writing, and (c) make a plan for how to approach the necessary revisions (p. 171). Although research on feedback that provides learners with improvement strategies
has been scarce, some studies have produced interesting results. One study (Zimmerman & Kitsantas, 2002) utilized 72 undergraduate students, each being assigned to one of six random experimental strategies that included: (a) no modeling without social feedback, (b) no modeling with social feedback, (c) mastery modeling without social feedback, (d) mastery modeling with social feedback, (e) coping modeling without social feedback, and (f) coping modeling with social feedback. These researchers’ results revealed that the students who were provided with a model for making and correcting revision errors and the use of revision strategies reported higher self-efficacy and higher performance on a written revision task than either the students who received no model or those who were provided a model that flawlessly implemented the revision strategies. This suggests that providing students with strategies for utilizing feedback is necessary in order to provide students with the skills for utilizing instructor feedback successfully. If mentors wish for the feedback to be fully utilized by students, they must provide explicit information to students in terms of how the feedback is to be used in the process of developing writing skills. Communicating to students how feedback will be utilized and what they are expected to do with the feedback is critical if feedback is to be utilized as the scaffolding tool for which it is intended.

**Reciprocal peer feedback.** The terms peer feedback, peer editing and peer review are often used to refer to a formative review process done by peers. In this process, students submit their writing to peers who review the piece or provide suggestions, but do not assign grades. Rieber (2006) stated that this is sometimes confusing to students. When students review each other’s work and “point out areas they perceive as weak or ways in which they think the assignment does not conform to
guidelines, they can and do make comments that can help peers improve their writing” (p. 323).

When students had the opportunity to both give and receive critical feedback, their anxiety about the feedback process diminished relatively over time and their self-confidence was improved as academic writers (Caffarella & Barnett, 2000). Moreover, personalized face-to-face feedback was found to be a successful tool for building students’ confidence as academic writers. Students presented positive attitudes toward feedback providers who listened and respected students’ ideas, and tried to help them improve. However, they did not like feedback providers who criticized and corrected their writings without carefully examining the ideas that the students were trying to present (Eyres et al., 2001).

Harms and Roebuck (2010) provided a discipline-strategy for enhancing the skills needed for reciprocal peer feedback with business majors. These researchers recommended that courses, such as business communication, requiring students to work in learning teams, would provide an appropriate setting to lay the foundation for both giving and receiving feedback. Furthermore, Kumar and Stracke (2007) noted that the feedback provider who acknowledged and respected the opinions of the student while presenting his or her own opinions from a different perspective was found to be the most helpful regarding students’ revisions and improvement. Caffarella and Barnett (2000) found from their study that students’ lack of confidence in their writing ability made it harder to make revision decisions and explain these decisions to the feedback providers. This was especially the case when there was conflicting feedback from different faculty or peer reviewers.
Topping, Smith, Swan and Elliott (2000) believed that reciprocal peer assessment might also impact the affective development of students by creating a sense of ownership and responsibility, improving self-confidence, and developing a sense of bonding and empathy with other students. In their study, which measured same-year, purely formative and qualitative feedback among peers in a psychology program, they paired twelve post- and asked them to assess their partner’s work. The results were considered substantial if more than 4 points separated the assessment of the staff and the peer. Findings indicated that peers were more positive than staff in three cases; staff more positive than peers in one case; and peer and staff positivity was approximately equal in eight cases. Assessors reported reading their partner’s report between three and four times on average (mean 3.46, range 2–6). Five of the twelve students found the peer assessment task to be intellectually challenging, although four said they found it a little challenging, and three not at all. Overall, ten students thought that the peer assessment exercise was an effective way of helping them reflect upon and improve their academic writing.

Aitchison (2009) posited, “for the student sharing their [sic] writing, learning occurs as they nominate and execute the writing tasks and request explicit feedback” (p. 910). She also reported that, based on her study of doctoral students engaged in a peer-writing group, the participants reported that the process of giving and receiving feedback became a valued and valuable tool for learning. Aitchison provided several theories for why the process was perceived to be helpful. She speculated that: (a) the submitting author needed to critically reflect on his or her piece of writing prior to submission; (b) peers provided feedback knowing that they would be required to explain their feedback; and (c) the group members invested considerable time and effort in reviewing others’
work, knowing that their work would receive the same time and effort. Finally, Wellington (2010) reported that the students who participated in his focus groups valued peer feedback. He believed that by providing all graduate students with the opportunity to both give and receive feedback in the safe confines of a respected peer group has the potential to become a valued part of the graduate research process.

According to Boud (2000), if all participants, including the mentor or instructor, are involved in developing a climate that promotes the giving and receiving of peer feedback; then the process becomes an expected part of the teaching and learning environment for the course. The more frequently students are given the opportunity to engage in the peer feedback processes, the more they will be to utilize the process effectively for their own writing benefit and for that of their writing peers.

Feedback, based on the studies that have been reviewed in the previous section, must be tailored to the needs of the students, and must take be provided in an environment of trust among all participants. Students, when expected to provide and utilize peer feedback, must often be taught how to provide feedback in a meaningful and respectful manner, and to accept all feedback as a part of becoming more proficient in the habits and skills of scholarly writing.

**Faculty Beliefs about Feedback.** This section contrasts and compares research related to the various types of feedback. I will present findings from the perspective of the faculty members who provide the feedback. Although it would be convenient if students and faculty were in total agreement regarding the purpose of feedback, that is often not the case. Bailey and Garner (2010) conducted their British study in England because they believed “that that there remains an important gap in research into
assessment and pedagogical practice in the contemporary context and conditions of higher education regarding the teacher experience” (p. 188). Students and their instructors may have varying opinions on the use of feedback for the writing process depending on their discipline. From a nursing perspective, Bonnel and Boehm (2011) provided a sample of the questions and answers from their study that investigated feedback best practices in online nursing courses. The following questions were posed to the instructor-participants:

When you consider the feedback that you give to online students, what is your preferred approach?

"I use track changes, saving the file and sending it as an attachment."
"In group work, I like to post a summary that can relate to all students and provide a synopsis of the group work."
"I prefer to give comments on drafts of assignments that will later be turned in for a grade."

What tips can you share for providing timely feedback?

"Providing feedback in a timely manner is really important. Clear language is also really important to avoid being misunderstood."
"Offering frequent, specific feedback to individual students demonstrates genuine interest in their learning and affects their performance positively."

What are your best examples of strategies for providing feedback in large classes?

"Using group e-mail, announcements, or discussion group entries is essential when providing feedback to larger groups of students."
"Divide large classes into groups and assign course activities to be completed in groups.” (p. 505).

The findings from this study of 22 nursing instructors included the following best practices most used by the faculty in an online course: (a) use rubrics and templates, (b) be proactive—think about feedback early in the course, (c) guide and coach—provide
both direction and support to the students, (d) use peer review, (e) vary the type of feedback according to the type of assignment, and (f) maximize technology.

In a related study, Carless, Salter, Ming and Lam (2011) posed the following research question, “What practices, relevant to a framework for sustainable feedback, were reported by a sample of award-winning teachers in the University of Hong Kong?” (p. 398). Semi-structured interviews were utilized to collect information for these following areas: (a) feedback practices in relation to specific courses, (b) the definition and interpretation of feedback, (c) the pros and cons of different types of feedback, (d) the instructors’ perceptions of what constitutes effective feedback, and (e) how students responded to feedback. The findings from this study included reports that two-phase assignments were common and that peer review and peer feedback were frequently used. A respondent from a nursing program utilized multi-phase assignments, such as portfolios, submitted in several sections. One respondent from the School of Education promoted the use of technology tools, such as blogs or online feedback dialogues, to enhance feedback.

In Bailey and Garner’s 2010 study, 48 faculty members from a cross section of disciplines were interviewed. Semi-structured interviews produced data that were in response to questions regarding “how academic staff conceptualise and experience written feedback in the broader context of what they do” (p. 190). Though semi-structured, the interviews included all of the following questions: (a) What is the purpose of feedback? (b) What do you hope to achieve in providing written feedback? (c) What do you think you achieve? In response to the first question, a nursing instructor responded that “Unless the student has got a very good mark I want to show them how to
get a better mark the next time round” (p. 191). An instructor from the school of business added that “It is for instruction and motivation. Students realise attention is being paid to them” (p. 191). Representing the social sciences, another participant responded that he and his colleagues try to “encourage students by pointing out what is good about their work. Also, to show them why they didn’t get a higher mark and for that to be something they can apply to later pieces of work” [sic] (p. 191).

Finally, in a recent study that involved both faculty mentors and graduate student mentees, Rocco (2013) et al. reported from their study results that the use of modeling as a form of formative support to beginning scholarly writers was a pedagogical practice that was thought to have great merit, but which did not produce the results that the mentors anticipated. They concluded that:

Students saw the work of the faculty as perfect examples of scholarly work to follow precisely, even though our intent was to share work in process so students could see the development of a piece of writing. Students could not understand how to use these pieces as a point of departure for their papers. (p. 146)

**The Mentor/Mentee Relationship**

**The mentor in the relationship.** Providing the scaffolding for a student to move from the novice to the more expert levels of writing has its roots in the socio-cultural theory of Vygotsky (1978). Based on this theory of learning, an individual uses the expertise of a more experienced other, in this case a graduate instructor or mentor, in the process of developing or refining a needed skills. When students are able to rely on the expertise of their mentors, moving through the Zone of Proximal Development (ZPD) can develop the students’ “buds” or “flowers” (Vanderburg, 2006, p. 375). Cooper,
Baturo, and Harris (1998) described the role of a thesis supervisor as one that includes being a project manager, a writing mentor, a wordsmith and editor, and, in some cases, a counselor. One of the primary tasks in this daunting role is to be certain that the student in the mentee role develops a sense of self-awareness that includes: (a) a knowledge of their strengths and weaknesses, (b) the strategies needed to acquire the knowledge for the task of the scholarly writing project, and (c) the skills to effectively monitor and evaluate their writing (p. 274).

One of the factors examined in the research that was conducted by Lavelle and Bushrow (2007) was that of low self-efficacy, which, in their study produced fear, doubt, and worry about the scholarly writing. One of the suggested instructional practices for students who scored low on this factor was setting aside time to review and offer meaningful feedback in a one-to-one situation. In many graduate programs, the feasibility for providing such intensive feedback on a one-to-one basis does not exist. Providing such intensive one-to-one feedback may not always be possible, but finding ways to develop a meaningful relationship between the mentor and the mentee in the supervision of scholarly writing has been shown to impact the development of writing skills. Returning to Vygotsky’s Zone of Proximal Development, in this mentor-mentee relationship, the mentor has a unique opportunity to provide for the student writer the personalized scaffolding that is necessary to move the writer from stuck to unstuck.

Greene and Smith (1999) observed that the most effective teachers are those who encourage writers by addressing a number of key questions, such as (a) What more can you say about X? (b) What do you see as your key point or purpose? (c) How do you think your reader will react to what you say here? (d) How do you plan to explain this
point? And (e) How does what you say here relate to or clarify what you say over here? (as cited in Vanderburg, 2006, p. 380). The use of these questions was seen as a tool that motivated students through their ZPD. These teachers helped students without placating and used higher levels of scaffolding to advance student writing and interest. According to Vygotsky, the interpersonal nature of the shared construction of knowledge mentor and mentee according to Vygotsky is very similar to the caring encounter between teacher and student according to Noddings (1984). Piercy, Sprenkle, and McDaniel (1996) wrote that “graduate students learn best by being supported, engaged, and challenged. They also learn best when they have good models, opportunities to practice and receive feedback” (p. 164).

An effective mentor finds ways to scaffold the necessary writing skills in a way that is supportive and that challenges the student in the way that Piercy et al. (1996) suggest. This can only be done if one is able to determine exactly where the student’s needs are, so that effective scaffolding strategies can be put into place. Larkin (2002) recommends actively diagnosing student needs and understandings, providing tailored assistance and specific feedback, and controlling for frustration and risk.

Diezmann (2005) presents an interesting study of her own practices as an evolving mentor for graduate students. She retrospectively looks at her experiences in terms of Cycle One, termed the neophyte supervisor, Cycle Two, referred to as errors and experimentation in writing, and Cycle Three, which she calls individual differences and systematic reflection. About Cycle One, Diezmann states that the Cycle One was a brief one, as she quickly realized “that most postgraduate students have yet to develop the skills of academic authors and that postgraduate students face a larger writing task in the
production of a thesis than academic authors in the production of article or book chapters” (p. 447). In Cycle Two, Diezmann related that she focused on supporting students to address their writing errors.

In Cycle Three, there was a strong focus on the individual strengths and weaknesses of students, as well as a personal goal to learn more about the scholarly writing process. During this cycle, Diezmann also developed her three-pronged practice of ‘quick read,’ ‘zooming in,’ and ‘zooming out,’ which she credits to the work of Watson and Wilcox (2000). The quick read allowed her to identify the student as a type of writer by looking at his or her predominant writing style; the three types included (a) Mechanical Writing Errors, including spelling, punctuation, grammar, language, and authorship, (b) Errors in the Microstructure of Writing, which included flow, connectives, placement of phrases, and convoluted sentences, and (c) Errors in the Macrostructure of Writing, including quality and clarity of purpose, consistency in chapters, relationship among components and general presentation of the dissertation, which she credited to Cooper et al. (1998). Diezmann closed with the identification of Cycle Four, which she names empowerment, technology, and ethics. This final cycle was identified as her personal plan of development in the support of students in their journey as scholarly writers.

One of the most important and critical pieces of student support in the scholarly writing process seems to be one of empowering students and allowing them to develop their scholarly voice (Diezmann, 2005). Rocco (2013) and her associates wrote that “graduate students need to learn to view writing as a heuristic process that can help them
learn not just how to write but how to discover their own voices and how to add their voices to a larger community” (p. 149).

**The mentee in the relationship.** I now turn to several characteristics of students that might promote the strong relationship from the mentee side. Certain learning styles tend to lend themselves to the types of situations that would be expected in a high-stress, high-stakes academic writing program. One such trait, ambiguity tolerance, is a learning style that has been positively correlated to student achievement. This trait allows the learner to temporarily suspend perceptions of contradictions or confusion and proceed without frustration. A significant positive relationship has been established between creativity and ambiguity tolerance, and there is an implication that tolerance for ambiguity may also have significance in the development of critical thinking skills (Lubart, 2005; Sternberg & Lubart, 1996; Stoycheva & Lubart, 2001).

Ambiguity tolerance (AT) refers to the way an individual (or group) perceives and processes information about ambiguous situations or stimuli when confronted by an array of unfamiliar, complex, or incongruent clues. Frenkel-Brunswick conducted the initial research on intolerance of ambiguity in 1948 and 1949 followed more than a decade later by the work of Budner (1962). Frenkel-Brunswick (1948; 1949) defined intolerance of ambiguity as “a tendency to result to black-white solutions, to arrive at premature closure . . . and to seek for unqualified and unambiguous overall acceptance and rejection of other people” (as cited in Norton, 1981, p. 407). According to Furnham and Ribchester (1995)

AT is a variable that is often conceived on a uni-dimensional scale. The person with low tolerance of ambiguity experiences stress, reacts prematurely, and avoids ambiguous stimuli. At the other extreme of the scale, however, a person with high tolerance for ambiguity perceives ambiguous situations/stimuli as desirable,
challenging, and interesting and neither denies nor distorts their complexity of incongruity. (p. 179)

However, intolerant learners may tend to avoid or give up when encountering ambiguous situations (Budner, 1962).

Soon after Frenkel-Brunswick (1948-49) introduced the concept of AT, Hamilton’s (1957) studies concluded that intolerance for ambiguity relates to a need for cognitive control of one’s environment; one’s inability to tolerate ambiguity leads one to avoid situations or stimuli that might result in uncertainty and anxiety as a result of the unstructuredness of the situation. As a result, the individual attempts to avoid the anxiety that is provoked by such situations (as cited in Furnham & Ribchester, 1995, p. 182).

Norton (1981) defined intolerance of ambiguity as “a tendency to perceive or interpret information marked by vague, incomplete, fragmented, multiple, probable, unstructured, uncertain, inconsistent, contrary, contradictory, or unclear meanings as actual or potential sources of psychological discomfort or threat” (p. 408). As it relates to a graduate student who is facing the challenges of scholarly writing for the first time, one’s intolerance to ambiguity may cause problems in decision-making, implementation of solutions, and whether to persist or give up on a difficult situation. As decision-making is required at critical junctures in the process of generation, evaluation, selection and implementation of solutions, this may prove to be especially problematic when faced with a task such as conducting and writing a review of the literature. In the case where a student may be faced with a difficult or important choice, the ability to tolerate ambiguity helps to maintain open-ended approach to the decision-making and avoid premature closure on a single option (Stoycheva & Lubart, 2001).
If one were to assume that scholarly writing requires a certain degree of creativity, then the factors of risk taking, openness, perseverance, and tolerance of ambiguity would all play at least minor roles in the completion of a major writing task (Sternberg & Lubart, 1996). For individuals with intolerance for ambiguity, there is “a reduction of ambiguous cognitive patterns . . . and a clinging to the familiar” (Furnham & Ribchester, 1995, p. 180). Tolerance for ambiguity, then, may be an important variable to take into consideration when mentoring student writers so that the mentor can help the mentee through some of the unstructured elements of a course.

DeRoma, Martin, and Kessler (2003) sought to understand the relationship between ambiguity tolerance and course structure for both graduate and undergraduate students. Their results indicated that, for both the undergraduate and graduate populations, low tolerance for ambiguity was associated with positive impressions toward course structure and with anxiety when the elements of structure were missing. For graduate students, additional discomfort was present in regard to grading criteria (the lack of specificity), testing applied knowledge, and when testing demands involved more than one possible answer. The strongest of anxiety producing situations for the graduate students was when mastery of content extended beyond rote material.

To tie this to the theory of adult learning, researchers have also suggested that ambiguity tolerance may play a crucial role in self-actualization of adult learners (DeRoma et al., 2003). Self-actualized adult learners with a high level of ambiguity tolerance do well in a multi-mode differentiated instruction learning environment. In such an environment, adult learners can take ownership of learning, determine their best learning mode, and make the most of their learning experience.
Self-regulated learning (SRL). A second important characteristic of a successful adult learner is that of self-regulated learning (SRL). Butler and Winne (1995) described self-regulation as “a pivot upon which students’ achievement turns” (p. 245). Self-regulation refers to the degree to which an individual is able to regulate certain aspects of his or her thinking (Nicol & Macfarlane-Dick, 2006). Self-regulation can be seen in such behaviors as: (a) goal-setting, (b) choice in strategies to achieve goals, (c) how necessary resources are managed in the learning process, (d) how an individual controls and maintains effort in learning, (e) how he or she reacts or fails to react to external feedback, and, ultimately, (f) the quality of the product that is the outcome of the learning process. Students who are more effective in their self-regulation are seen as better able to make use of feedback provided by teachers, mentors, or peers, and to use the feedback in progressing towards their goals.

The theory of self-regulated learning provides a useful foundation for formative assessment and feedback to empower students as self-regulated learners. In a SRL setting, learners are viewed as active participants in the learning process. The components of self-regulation that are considered necessary for a self-regulated setting include: (a) self-regulated learners attempt to control their behavior, motivation, and cognition; (b) self-regulated learners have a goal that they are attempting to accomplish; and (c) the self-regulated learner must be in control of his or her learning (Svinicki, 2010). This referent closely correlates to constructivism, where learners are assumed to construct their own meaning based on their prior knowledge and the information that they amass from their environment. Self-regulation has strong ties to the work of Vygotsky (1986) through the concept of divergent assessment, which emphasizes the learner’s
understanding rather than what the assessor deems important. When using divergent assessment, a mentor would be interested in what the learner knows, understands, and can do. In divergent teacher assessment a constructivist view of learning is adopted, with an intention to teach in the zone of proximal development (Vygotsky, 1986); both assessment and learning are seen as accomplished jointly by the teacher and the student, with a Vygotskian view toward future development rather past or current achievement.

An interesting look at self-regulated learning comes from the research of Zimmerman (2002), who determined that self-regulated learners not only draw more benefit from self-directing their learning, but that they derive more benefit from the feedback of others, both peers and mentors. Most interesting from this study was that the most self-directed of learners actually seek out that feedback as a part of their learning schema. This builds a strong case for the mentor to utilize a constructivist approach to teaching and assessment where both learning and the assessment of learning are co-created.

The characteristic of self-regulation fits well with that of tolerance for ambiguity, since those learners who are most able to self-regulate are also the least ‘static’ in their learning (Stracke & Kumar, 2010). These are the learners most likely to focus on the process, the development and the transferability of their knowledge. In their case study that involved a small number of doctoral students and supervisors, Stracke and Kumar also emphasize the value of expressive feedback in promoting self-regulated learning.
Conclusion

The review of relevant literature in the areas of scholarly writing, the mentor/mentee relationship, developing pedagogy for teaching scholarly writing to graduate students, and two characteristics of learners (mentees) who are engaged in a relationship with a mentor to develop scholarly writing skills revealed several themes. First, although the expectations for the development of scholarly writing skills in graduate students has changed over the years, there appears presently to be at least an underlying assumption on the part of many graduate-level instructors that students possess a level of scholarly writing expertise upon entry to a graduate program. This assumption has proven to be troublesome on the parts of both students and their faculty advisors (mentees and mentors) when a gap is uncovered between expectation and reality. As Sallee, Hallett, and Tierney (2011) asserted, graduate students are typically expected to know how to write; and, those who write poorly are occasionally penalized, but little in-class attention is given to help students continue to develop and refine their writing skills. To further complicate the issue of scholarly writing, Aitchison and Lee (2006) and Badley (2009) maintained that writing at the graduate level is viewed as completely separate from knowledge production. Badley asserted that, “It is as if first comes the research, an active creation of new knowledge, and then comes the writing, a relatively passive assembling of what had already been achieved. It is as if researching and writing were two entirely separate processes” (p. 209).

A need to teach scholarly writing as a part of the graduate curriculum has been lamented for nearly thirty years. Of the 144 institutions that responded to their survey regarding graduate writing instruction, Golding and Mascaro (1986) reported that only 51
reported offering graduate level writing courses. Of the 51 institutions that offered such a course, only 15 institutions required the graduate writing course for all students. Adding to the confusion of what and how to teach graduate students in the preparation for their scholarly writing is how feedback is infused (if at all) in the instruction, the kind of feedback that is often used, and how this is experienced by the students who receive the feedback. How and when feedback is provided, how the feedback is perceived, and how the feedback is expected to be used in the process of developing scholarly writing skills varies across graduate programs.

Novice writers present their ideas via writing, produce a finished draft, and perceive revision as a polishing stage. Conversely, experienced writers develop their ideas while writing and revising, and they expect that they will revise extensively and repeatedly. For experienced writers, revision is part of the writing process, and formative feedback is a critical piece of the process (Lavelle & Bushrow, 2007). Because a piece of scholarly writing typically is required as one of the culminating expectations for a graduate degree, summative feedback alone is not sufficient for the development of scholarly writing skills in graduate students. The characteristics of the learner, the relationship that has been developed between the person giving the feedback and the person who receives the feedback, the timing of the feedback, and the process for how the feedback is disseminated are integral to the study of the importance of feedback in the scholarly writing process. How feedback is to be utilized in a course, according to the work of Gazza and Hunker (2012) should be transparent to students. “Students should know up front, through the assignment guidelines, that they will receive fair and
equitable critiques of drafts of their writing from peers and faculty using the evaluation rubric for the assignment (p. 283).

As Budner (1962) reported in his seminal work on the characteristic of tolerance/intolerance of ambiguity, intolerant learners may tend to avoid or give up when encountering ambiguous situations. The scholarly writing process that is required for most master’s degree candidates is anything but black and white. Taking what has been published on a given topic and synthesizing those words into a strong and credible piece of writing on one’s research is a task that requires the writer to tolerate messiness, produce multiple drafts, and process information about ambiguous situations or stimuli resulting from unfamiliar, complex, or incongruent information. Students who are the least tolerant of ambiguity may struggle with the lack of structure that research and writing often require, and the support of the ‘more knowledgeable other’ may assist such students in their ability to master the skills of scholarly writing at the graduate level.

In an effort to add to the literature on the development of scholarly writing, specifically the writing of graduate students at the master’s degree level, I designed this descriptive study to examine student ideas about scholarly writing at the graduate level, the role of ambiguity tolerance in the development of writing confidence, and to investigate how feedback was provided by instructors and perceived and utilized by graduate students in the process of developing scholarly writing skills. From the Vygotskian (1978, 1986) perspective, the student participants (mentees) were seen as the novice scholarly writers and their mentors were considered the expert scholarly writers.

Existing literature had provided little evidence that relationship exist among the variables of what students know about themselves and the scholarly writing process, the
role that feedback plays in the scholarly writing process, and how the traits of ambiguity tolerance or intolerance in the graduate students may play a role in these relationships. It was my intent to explore these variables, and the relationships that existed among them, in an effort to understand more deeply my role in the success of the graduate student writers that I supported in the scholarly writing process.
CHAPTER THREE – METHODS

Introduction

This descriptive quantitative study examined the relationship that exists between students’ tolerance/intolerance of ambiguity and the assumptions that they have about scholarly writing at the master’s degree level. I also investigated how formative feedback that students receive from their faculty mentors relates to the ideas that they have about the scholarly writing process as a part of their master’s degree coursework. Specifically, I wanted to know about the formative feedback strategies that the faculty mentors who supported graduate students in the scholarly writing process utilized and, by listening to the responses of the student participants, the specific formative feedback strategies that they found to be helpful as part of the support that they received from their faculty mentors throughout the scholarly writing process. Using an electronically-delivered survey, I examined the similarities and differences among students from four distinct disciplines: (a) education, (b) business, (c) nursing, and (d) servant leadership, in terms of their attitudes regarding the scholarly writing process at the master’s degree level, and I compared the responses from both faculty mentors and students regarding their thoughts about the formative feedback process according to their program of residence.

A small, purposeful sampling was utilized in order to provide deep rather than broad data regarding how teaching and learning contribute to the development of scholarly writing in graduate students across four distinct master’s programs. The primary goal of the study was to produce a snapshot of the beliefs and behaviors of
students and faculty members in four distinct graduate programs as they relate to the
development of the practices of scholarly writing. Babbie (1973) posited that “survey
data facilitate the careful implementation of logical understanding” (p. 46), which was the
purpose for this quantitative study. The use of survey research for the study allowed the
researcher to examine several characteristics of the student participants and to make
descriptive assertions about the students, the characteristics, and the relationship to
students’ thoughts about successful scholarly writing.

Quantitative survey research techniques were utilized to address the professional
writing skills of the student participants (see Appendix A), to measure the degree to
which each of the student participants was able to tolerate ambiguity (see Appendix B),
and to collect data that measured students’ responses to specific survey questions
regarding feedback on scholarly writing assignments (see Appendix C). Faculty
perceptions about feedback were gathered via a different, but parallel survey about
providing writing feedback (see Appendix D).

This chapter includes (a) the rationale and the assumptions for choosing the
quantitative design for the study, (b) a description of the participants for the study, (c) a
description of the data collection techniques that were utilized, (d) a description of each
of the data collection tools that were used, (e) a description of how the data were
collected, and (f) an explanation of the research integrity for the study.

Rationale and Assumptions for the Quantitative Design

The goal of the study was to identify relationships among student writing skills
and habits, and attitudes and beliefs regarding feedback as a part of the writing process on
the master’s students’ scholarly writing success. According to Creswell (1998),
quantitative research addresses trends and measures variables. For the present study, I sought to examine the tendencies or trends in the participants’ responses by asking primarily closed-ended questions. The rationale for this approach was that the quantitative data and results provided a general picture of the research problem, and some factors that are known to contribute to successful scholarly writing at the master’s degree level allowed me to draw correlations between and among some of the characteristics of the student participants.

I chose to include several more qualitative and open-ended questions in the feedback surveys in order to more clearly understand the meaning of the quantitative data and to utilize participants’ words in an effort to develop a more in-depth understanding of the participants’ responses. Creswell and Plano-Clark (2007) define this method as the “validating quantitative data model” (p. 65), which uses both quantitative and qualitative data in one survey instrument. The use of this model provides the researcher an opportunity to embellish the quantitative data to enrich the overall picture that emerges.

**Sampling and Study Participants**

The participants in this study included master’s degree-seeking students and faculty members from four distinct programs from a small, private university in the Midwest. The participants in this quantitative study represented a purposeful sample of graduate students and instructors from programs at a small, private university in the Midwest. The five invited programs all required scholarly writing to achieve the degree. Participants for the study were recruited via an email that was sent to all current students and all graduate faculty members of five programs. The sampling frame included (a) students and faculty members from the Master of Business Administration (MBA)
program; (b) students and faculty members from in the Master of Science in Nursing (MSN) program; (c) students and faculty members from the Master of Education (MAED) program; (d) students and faculty members from the Master of Science in Servant Leadership (MSSL) program, and the students and faculty members from the Master of Science in Mental Health Counseling (MSMHC) program.

A letter was sent to each of the deans (see Appendix E) to request permission to utilize the graduate students and faculty members from each of the programs. Each dean replied with permission, and the email addresses for all of the current enrolled students and current faculty members from each of the programs were provided. This email invitation was sent to a total of 322 graduate students and 35 faculty members. These students and faculty members constituted the sampling frame for the study. No students or faculty members from one of the programs responded to the invitation; the students and faculty members from the remaining four programs who responded to the invitation constituted the original study participants.

From the sampling frame of invited graduate students and faculty, 60 students began the surveys, with a final N=50. Thus, ten partially completed survey packets were considered unusable, and were deleted from the data set prior to analyses. The data presented display first, demographics or the graduate student participants; and second, the program distributions for the 50 student participants and 15 faculty participants.

**Demographics of the graduate student participants.** The participants met the criteria for participation in the study because all were currently enrolled or teaching in a master’s degree program that included a piece of scholarly writing as a requirement for
the completion of the degree. Student respondents were asked to provide their age by choosing the appropriate five-year range. The results are reported in Table 3.1.

Table 3.1. Percentage/Number of Participants by Age Range

<table>
<thead>
<tr>
<th>Age Range</th>
<th>%</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-29</td>
<td>42</td>
<td>21</td>
</tr>
<tr>
<td>30-34</td>
<td>22</td>
<td>11</td>
</tr>
<tr>
<td>35-39</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>40-44</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>45 and over</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>Total:</td>
<td>100</td>
<td>50</td>
</tr>
</tbody>
</table>

Student participants were asked to provide their gender. Of the 50 participants, there were 8 males and 50 females.

**Distribution of the participants.** Table 3.2 shows the number of student participants from each of the four programs. The smallest of the graduate programs, and the newest, had proportionately the fewest student participants.

Table 3.2. Number of Student Participants from Each Master’s Degree Program

<table>
<thead>
<tr>
<th>Program</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master of Arts in Education</td>
<td>12</td>
</tr>
<tr>
<td>Master of Business Administration</td>
<td>15</td>
</tr>
<tr>
<td>Master of Science in Nursing</td>
<td>18</td>
</tr>
<tr>
<td>Master of Science in Servant Leadership</td>
<td>5</td>
</tr>
</tbody>
</table>

The faculty participants reported the program for which they taught (see Table 3.3). Faculty responses were not tied to student responses.
Table 3.3. *Number of Faculty Participants from Each Master’s Degree Program*

<table>
<thead>
<tr>
<th>Faculty Program</th>
<th>n</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAE</td>
<td>5</td>
<td>33.3%</td>
</tr>
<tr>
<td>MSN</td>
<td>2</td>
<td>13.3%</td>
</tr>
<tr>
<td>MBA</td>
<td>7</td>
<td>46.7%</td>
</tr>
<tr>
<td>MSSL</td>
<td>2</td>
<td>13.3%</td>
</tr>
</tbody>
</table>

**Research Integrity for the Study**

The email correspondence to the students and the faculty members included a cover letter describing the purpose of the research (Appendices E and F). Participants were assured that their data would be kept in the strictest of confidentiality; participants were also told in writing that they may choose to discontinue participation in the study at any time.

Participants electronically signed the email indicating that they were willing to participate in the study. They followed the URL that was provided in order to begin the survey. Question one asked the participants if they had (a) received a copy of the letter of informed consent, (b) if they understood the nature and purpose of the study, its potential benefits, their role as a participation in the study, and any associated risks associated with participating in the study, and (c) if all questions have been answered the participant agreed to participate in the study. Once the participant answered *yes* to the initial question, he/she was taken to the remaining survey questions. Participants were informed that the data would be securely stored on the password-protected Survey Monkey site, and that no identifying information would be utilized in the results that would be published with the dissertation. All data that were analyzed were stored on password-protected external sites (Dropbox) on a computer with password-protected access in a

55
locked office, and were accessed only by the researcher. The participants’ Internet Protocol (IP) address was included in the results that were provided in the Survey Monkey data, as well as the time, date, and year that each participant began the survey, and the length of time spent in completing the survey, although these data were not included on the data files that were exported to the researcher’s computer files. The participants were identified in the reporting only by their school of enrollment and their age and gender.

The data from the surveys were stored on the Survey Monkey site, which is a secure site with password-protected security. The site was accessed only by the primary researcher, and all data that were generated from the surveys in the form of charts, graphs, or prose were also securely stored on a password-protected external hard drive that was kept in the researcher’s locked office.

**Procedures**

The survey instruments were made available to the participants via an email link that was generated through Survey Monkey in its paid version and included instructions for the completion of the survey. The first question of the survey included a page that re-confirmed that the student or the faculty member had previously signed for informed consent, and by electing to continue to the subsequent page, the respondent thus provided additional consent.

Data collection occurred via a universal resource locater (URL) to an electronically prepared survey that combined the three student measures (Professional Writing Survey, Tolerance for Ambiguity Survey, and Feedback Survey – Student Version (see Appendices A, B, and C). Each survey appeared as a separate section and
included a separate set of instructions for completion. Participants were informed via the email that the survey could be competed in 20 minutes. Survey questions were required to be answered in their order of appearance. The program settings dictated that each participant had to complete each question before proceeding to the next. At the completion of the survey, participants were required to submit by clicking the submit button; they then received an electronic response thanking them for their participation in the study.

**Instruments**

Student participants were asked to complete three surveys. I selected the three instruments as each played a role in answering the research questions regarding the relationship that existed among ambiguity tolerance, instructor feedback, and ideas that students have about scholarly writing at the graduate level.

**Professional Writing Survey.** The Professional Writing Survey (Appendix A) was a researcher-developed tool that had been utilized informally in the teaching of professional writing and research over a number of years. This survey was designed to provide baseline data regarding students’ rating of: (a) the writing process, (b) belief in professional writing ability, (c) writing mechanics, (d) openness to receiving feedback, and (e) comfort in giving feedback.

The survey asked for demographic information including (a) gender, (b) age, (c) undergraduate degree, (d) graduate program, and (e) current occupation. The instrument included 22 statements, to which student participants were asked to respond based on a five point Likert scale (1=**this does not describe me at all** to 5=**this describes me very**
well). The directions asked students to use the sentence stem ‘When I think about scholarly writing’ as they responded to each statement.

The responses for the Professional Writing Survey were analyzed by descriptive statistics (see Tables 3.4 and 3.5). The results indicated that the mean scores for many of the 22 items were clustered at the high end of the scale (1=this does not describe me at all; 5=this describes me very much). At the low end of the scale, though still above the midpoint was the item that asked students to relate their confidence in the use of American Psychological Association style of professional writing ($\bar{x}= 3.02$). At the high end was the survey item that asked students to relate the degree to which they welcomed strategies to improve (4.40). In general, there was a narrow band of variance (1.18 among the 22 items for the Professional Writing Scale.)
Table 3.4. *Professional Writing Survey Item Statistics*

<table>
<thead>
<tr>
<th>Item</th>
<th>$\bar{x}$</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am confident in my abilities</td>
<td>4.00</td>
<td>1.06</td>
<td>50</td>
</tr>
<tr>
<td>I am comfortable sharing my writing</td>
<td>4.00</td>
<td>1.10</td>
<td>50</td>
</tr>
<tr>
<td>I am comfortable receiving verbal feedback</td>
<td>4.20</td>
<td>.85</td>
<td>50</td>
</tr>
<tr>
<td>I am comfortable receiving written feedback</td>
<td>4.40</td>
<td>.72</td>
<td>50</td>
</tr>
<tr>
<td>My ideas flow</td>
<td>3.24</td>
<td>1.01</td>
<td>50</td>
</tr>
<tr>
<td>I enjoy the writing process</td>
<td>3.36</td>
<td>1.22</td>
<td>50</td>
</tr>
<tr>
<td>I brainstorm before writing</td>
<td>3.36</td>
<td>1.19</td>
<td>50</td>
</tr>
<tr>
<td>I am comfortable giving verbal feedback</td>
<td>3.56</td>
<td>1.11</td>
<td>50</td>
</tr>
<tr>
<td>I am comfortable giving written feedback</td>
<td>3.72</td>
<td>1.14</td>
<td>50</td>
</tr>
<tr>
<td>I always do multiple drafts</td>
<td>3.88</td>
<td>1.17</td>
<td>50</td>
</tr>
<tr>
<td>I seek the advice of others</td>
<td>4.10</td>
<td>.90</td>
<td>50</td>
</tr>
<tr>
<td>I have strong vocabulary skills</td>
<td>3.58</td>
<td>1.26</td>
<td>50</td>
</tr>
<tr>
<td>My grammar is nearly always correct</td>
<td>3.44</td>
<td>1.14</td>
<td>50</td>
</tr>
<tr>
<td>I use correct punctuation</td>
<td>3.68</td>
<td>1.18</td>
<td>50</td>
</tr>
<tr>
<td>I have strong editing skills</td>
<td>3.48</td>
<td>1.05</td>
<td>50</td>
</tr>
<tr>
<td>My writing is engaging</td>
<td>3.66</td>
<td>.96</td>
<td>50</td>
</tr>
<tr>
<td>I do not procrastinate</td>
<td>2.82</td>
<td>1.35</td>
<td>50</td>
</tr>
<tr>
<td>I am confident using APA style</td>
<td>3.02</td>
<td>1.11</td>
<td>50</td>
</tr>
<tr>
<td>I welcome strategies to improve</td>
<td>4.40</td>
<td>.63</td>
<td>50</td>
</tr>
<tr>
<td>I am comfortable writing research papers</td>
<td>3.40</td>
<td>1.22</td>
<td>50</td>
</tr>
<tr>
<td>I understand how to cite the works of others</td>
<td>3.50</td>
<td>1.12</td>
<td>50</td>
</tr>
<tr>
<td>I understand when to cite the works of others</td>
<td>3.90</td>
<td>1.01</td>
<td>50</td>
</tr>
</tbody>
</table>
Previous research using this measure did not assess the instrument for reliability or validity; thus, analyses were run to determine that this was an appropriate, valid, and reliable instrument for the study. Cronbach's alpha determines the internal consistency or average correlation of items in a survey instrument to gauge its reliability. Cronbach’s alpha for the 22 items was .920, suggesting very good internal reliability for the scale with this sample; a Guttman Split-Half Coefficient of .912 was obtained, suggesting a high degree of internal consistency.

Table 3.5. Professional Writing Survey Summary Statistics

<table>
<thead>
<tr>
<th></th>
<th>( \bar{x} )</th>
<th>Min</th>
<th>Max</th>
<th>Range</th>
<th>Maximum / Minimum</th>
<th>VAR</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item Means</td>
<td>3.66</td>
<td>2.82</td>
<td>4.40</td>
<td>1.58</td>
<td>1.56</td>
<td>.17</td>
<td>22</td>
</tr>
<tr>
<td>Item Variances</td>
<td>1.18</td>
<td>.40</td>
<td>1.82</td>
<td>1.41</td>
<td>4.46</td>
<td>.12</td>
<td>22</td>
</tr>
</tbody>
</table>
Table 3.6. Reliability Statistics Professional Writing Survey

<table>
<thead>
<tr>
<th></th>
<th>Part 1 Value</th>
<th>N of Items</th>
<th>.838</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cronbach's Alpha</td>
<td>Part 2 Value</td>
<td>N of Items</td>
<td>+.866</td>
</tr>
<tr>
<td></td>
<td>Total N of Items</td>
<td></td>
<td>11^a</td>
</tr>
<tr>
<td>Correlation Between Forms</td>
<td>Equal Length</td>
<td></td>
<td>.843</td>
</tr>
<tr>
<td>Spearman-Brown Coefficient</td>
<td>Unequal Length</td>
<td></td>
<td>.915</td>
</tr>
<tr>
<td>Guttman Split-Half Coefficient</td>
<td></td>
<td></td>
<td>.912</td>
</tr>
</tbody>
</table>

a. The items are: confidence abilities, comfort share, comfort verb critique receive, comfort written critique receive, ideas flow, enjoy writing process, brainstorm before, comfort verb critique give, comfort written critique give, multiple draft, seek advice.
b. The items are: strong vocabulary, grammar correct, corrects punctuation, strong editing, writing engages, I do not procrastinate, confident APA, welcome strategies improve, comfort writing research, understand how to cite, understand when to cite.

Table 3.7. Summary Statistics Between Parts Professional Writing Survey

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Range</th>
<th>Maximum / Minimum</th>
<th>VAR</th>
<th>N</th>
</tr>
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<tbody>
<tr>
<td><strong>Item Means</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part 1</td>
<td>3.80</td>
<td>3.24</td>
<td>4.40</td>
<td>1.16</td>
<td>1.35</td>
<td>.14</td>
<td>11^a</td>
</tr>
<tr>
<td>Part 2</td>
<td>3.53</td>
<td>2.82</td>
<td>4.40</td>
<td>1.58</td>
<td>1.56</td>
<td>.17</td>
<td>11^b</td>
</tr>
<tr>
<td>Both Parts</td>
<td>3.66</td>
<td>2.82</td>
<td>4.40</td>
<td>1.58</td>
<td>1.56</td>
<td>.17</td>
<td>22</td>
</tr>
<tr>
<td><strong>Item Variances</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part 1</td>
<td>1.12</td>
<td>.53</td>
<td>1.50</td>
<td>.97</td>
<td>2.82</td>
<td>.09</td>
<td>11^a</td>
</tr>
<tr>
<td>Part 2</td>
<td>1.24</td>
<td>.40</td>
<td>1.82</td>
<td>1.41</td>
<td>4.46</td>
<td>.14</td>
<td>11^b</td>
</tr>
<tr>
<td>Both Parts</td>
<td>1.18</td>
<td>.40</td>
<td>1.82</td>
<td>1.41</td>
<td>4.46</td>
<td>.11</td>
<td>22</td>
</tr>
</tbody>
</table>

**The Scale of Tolerance-Intolerance of Ambiguity.** The student participants were asked to complete a 16-item survey that was developed for a study conducted by Budner in 1962. In the development of the scale, Budner originally chose 33 items to
include, but was left with only 16 following his personal item analysis (Norton, 1981, p. 408). His tool, The Scale of Tolerance-Intolerance of Ambiguity (ST-IA), was part of the seminal work in this area (Budner, 1962). Since that time a number of alternate scales have been developed and used to measure one’s tolerance for ambiguity. The ST-IA was chosen after reviewing the literature and determining that the validity and reliability for the Budner scale was equal to many of the more recent tools that have been developed and used. Test-retest reliability has been reported by Budner of .85 when tested two weeks later. The Scale of Tolerance-Intolerance of Ambiguity has been reported to be moderately reliable with Cronbach’s alpha outcomes ranging from .39 to .62 in 13 of his 17 trials, along with an alpha of .85 on test-retest (Budner, 1962). Furnham and Ribchester (1995) reported that “The Budner scale has perhaps attracted the most attention and is used most frequently in AT research, and at least allows for comparison between studies” (p. 187). These researchers also reported that the with correlations in the 0.20 to 0.40 range, the items on the Budner Scale of Tolerance-Intolerance of Ambiguity were sufficiently consistent to suggest that the measure had content, concurrent, and construct validity (Furnham & Ribchester, 1995).

Tolerance of ambiguity allows the learner temporarily to suspend perceptions of contradiction or confusion and proceed without frustration. Student participants were assigned a one-dimensional score that identified the degree to which they tolerated ambiguity. This summative score allowed the researcher to isolate and relate this characteristic to the five demographic indicators above, how students prefer feedback, and which teaching strategies are perceived to be most effective in developing scholarly writing skills at the graduate level.
Feedback Survey. Participants, both student and faculty, were asked to complete a survey that was originally used in a study done by Getzlaf and associates (2009). This survey was chosen for adaptation and use because of its relative newness (2009), the similarity of the desired outcomes (process and product of feedback for graduate students), and because the tool had been used in a similar study. The Getzlaf group investigated student perception of effective instructor feedback in online graduate programs utilizing 30 graduate students from two programs. As the researchers described in their 2009 article, the development of the survey followed a commonplace approach that originally generated 100 terms from the current literature in the area of feedback. Those 100 terms were reduced to 46 possible items for the survey, which were then ranked in order of importance by the four researchers. This resulted in the final twenty items for the survey. After an extensive search, it was determined that further verification on the validity or reliability of the 20 quantitative items was not published. Although no prior verification was located, I included the use of the Getzlaf et al. (2009) survey as an instrument for the present study.

<table>
<thead>
<tr>
<th>Reliability Statistics</th>
<th>Value</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cronbach's Alpha</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part 1</td>
<td>.75</td>
<td>10&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Part 2</td>
<td>.62</td>
<td>9&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Total N of Items</td>
<td></td>
<td>19</td>
</tr>
<tr>
<td><strong>Correlation Between Forms</strong></td>
<td></td>
<td>.64</td>
</tr>
<tr>
<td><strong>Spearman-Brown Coefficient</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal Length</td>
<td>.78</td>
<td></td>
</tr>
<tr>
<td>Unequal Length</td>
<td>.78</td>
<td></td>
</tr>
<tr>
<td><strong>Guttman Split-Half Coefficient</strong></td>
<td></td>
<td>.77</td>
</tr>
</tbody>
</table>

The Getzlaf (2009) team also included qualitative data collection that required participants to write definitions for the twenty terms. In order to minimize participant fatigue and remain within the time frame that I had set for survey completion, I opted not to utilize their qualitative questions. To collect information from the student respondents regarding their experiences and preferences for the kind of feedback used in the scholarly writing process, and their experiences in regard to how expectations of scholarly writing were communicated to them by their instructors, I added three items to the student survey: (a) What forms of support do you generally find most helpful as you complete a piece of scholarly writing? Please mark all that apply. (b) How do your instructors communicate their expectations of graduate students writing skills for your degree program? Please mark all that apply. (c) What are the expectations of your instructors of your writing skills as a graduate student (open-ended question)? Similar questions were added to the faculty version of the feedback survey (see Appendix C).

**Data Analysis Procedures**

Version 21 of the Statistical Package for Social Sciences (SPSS) was utilized for both analyses of both descriptive and inferential statistics. Descriptive analyses were
completed for each question in each of the surveys. Descriptive statistics for the data reported one measure of central tendency—the mean, and measures of dispersion or spread—range, standard deviation, and variance. The writing survey questions were analyzed using principal component analysis (PCA) for underlying dimensions of writing, which included: (a) factor one—writing mechanics, (b) factor two—writing ability, (c) factor three—comfort receiving feedback, (d) factor four—comfort giving feedback, (e) factor five—writing process, and (f) factor six—desire to improve.

Data from The Scale of Tolerance-Intolerance of Ambiguity resulted in a unitary score, the student’s tolerance of ambiguity rating. This rating represented the degree to which the student is able or unable to tolerate ambiguity; this allowed the researcher to isolate and relate this characteristic to the five demographic indicators above, how students prefer feedback, and which teaching strategies are perceived to be most effective in developing scholarly writing skills at the graduate level. A perfectly tolerant person would score 15, and a perfectly intolerant person 105. Scores ranging from 20 to 80 have been reported, with a mean of 45 reported from Budner’s work (1962) and a mean score of 53.37 reported much more recently in the work of Bors, Gruman, and Shukla (2010). As for the previously mentioned surveys, demographic attributes: (a) gender; (b) age; (c) academic background; (d) current academic program; and (e) current occupation were cross-tabulated with the ambiguity rating to determine if there were correlations between a person’s tolerance for ambiguity and any of his or her demographic indicators.

For the feedback surveys (student and instructor versions), the Likert-type scaled responses provided measures of the relative importance of characteristics of feedback from the perspective of the student and the instructor. Demographic attributes (above)
were again used to cross-tabulate with the feedback data for students. For the instructor survey, only the current teaching position was used for comparison of feedback measures and attitudes across the four colleges represented by the faculty participants.
CHAPTER FOUR – DATA COLLECTION AND ANALYSIS

Introduction

This chapter presents the results of the study. The first section presents a description of the study and its participants. Secondly, I present the research questions with data generated from this study. The final section includes a summary that presents the overview of the findings.

The purpose of the study was to examine quantitatively the relationship that existed between students’ tolerance/intolerance of ambiguity and the assumptions that they had about their scholarly writing at the master’s degree level. Fifty graduate students from four distinct programs at a small, private university in the Midwest and fifteen of their graduate mentors were the participants for the study. Based on the theories of social cognition, self-regulation, and constructivism, and an assumption that assisted learning would provide the scaffolding to novice writers, research questions were developed to examine student ideas about scholarly writing at the graduate level. My intent for the study was to investigate the correlations that existed between students’ ability or inability to tolerate ambiguity and the feelings or assumptions that they brought to the scholarly writing process at the master’s degree level. I also was curious to examine the role of formative feedback in the scholarly writing process, and the relationship that existed between feedback that students received and the assumptions that they brought to the process of creating a piece of high stakes, scholarly writing as a fulfillment of the respective degree for their programs.
The primary research question (RQ) that guided this quantitative study was: What correlation existed between graduate students’ tolerance or intolerance of ambiguity and the assumptions that they had about their scholarly writing at the master’s degree level? A second research question was also posed: How does instructor formative feedback relate to the ideas that graduate students have about their scholarly writing at the master’s degree level? My intent was to examine how instructors provided feedback and how students perceived that feedback in the process of developing improved writing skills at the graduate level. What formative feedback strategies do instructors use, and do students value in the process teaching/learning scholarly writing at the graduate level?

This study incorporated a variety of data sources to address the research questions for the study. Four data sources were analyzed quantitatively: (a) The Scale of Tolerance-Intolerance of Ambiguity [see Appendix A] (Budner, 1962), (b) The Professional Writing Survey [see Appendix B] (researcher-developed), and (c) Feedback Survey – Student and Instructor versions [see Appendices C and D] (Getzlaf et al., 2009). Data analysis procedures used in this study were designed to determine if significant relationships existed among the students’ tolerance/tolerance of ambiguity, their preference for feedback methods and writing support, and the ideas that they developed while completing a master’s degree that included a final piece of scholarly writing. I designed a quantitative explanatory study that utilized data from the four data collection tools. Data were collected using a non-random and purposive sample, and descriptive and inferential statistics were used to assess relationships among the variables. This chapter presents the results of the statistical procedures used to analyze the data. The quantitative data analyses examined statistical correlations between various attributes of the
participants, such as gender, program of study, age, and the level of tolerance for ambiguity and the participants’ beliefs and attitudes about their levels of expertise in various aspects of scholarly writing, such as: (a) scholarly writing confidence; (b) scholarly writing process; (c) scholarly writing mechanics; and (d) one’s ability to give and accept written and oral feedback regarding scholarly writing, and (e) one’s desire to improve in the area of scholarly writing at the master’s degree level.

The data were collected via the paid, secure version of Survey Monkey, and were exported over a secured link to the researcher to insure participant confidentiality. The data were then imported into SPSS Version 21.0 where the descriptive statistics and exploratory analyses were performed. This provided an overview of the nature of the data and an assessment of whether all parametric assumptions had been met.

The primary research question that guided the present study investigated the ways that the trait of tolerance/intolerance of ambiguity related to the ideas that graduate student writers at the master’s degree level have about scholarly writing. With respect to that question, I begin with the data that report how the student participants responded to the Scale of Tolerance-Intolerance of Ambiguity [ST-IA] (Budner, 1962).

**Results for Research Question One**

In this section, the results for the Scale of Tolerance-Intolerance of Ambiguity are reported, as are the results for the Professional Writing Survey, and the correlations that were found to exist between the two. In this way, I provide answers for the primary research question for the study: What correlation exists between students’ tolerance/intolerance of ambiguity and the assumptions that they have about the scholarly writing process as a part of their master’s degree work.
**Scale of Tolerance-Intolerance of Ambiguity.** Fifty student participants completed the Scale of Tolerance-Intolerance of Ambiguity (ST-IA), a 16-item scale that produced a single numerical score, with a mean score of 56.98, and a range of 34 to 77. Table 4.1 presents the descriptive statistics for the data from the ST-IA for the 50 student participants.

Table 4.1 *Descriptive Statistics for the Scale of Tolerance-Intolerance of Ambiguity*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Range</th>
<th>Min</th>
<th>Max</th>
<th>Sum</th>
<th>X</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST-IA</td>
<td>50</td>
<td>44</td>
<td>34</td>
<td>77</td>
<td>2849.30</td>
<td>56.98</td>
<td>1.24</td>
</tr>
<tr>
<td>Valid N</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The data from the Scale of Tolerance-Intolerance of Ambiguity (ST-IA) were analyzed for normality of distribution. As shown in Table 4.2, the data for the ST-IA were within a normative range for both skewness and kurtosis.

Table 4.2. *Skewness/Kurtosis Scale of Tolerance-Intolerance of Ambiguity*

<table>
<thead>
<tr>
<th></th>
<th>Variance Statistic</th>
<th>Skewness Statistic</th>
<th>SEM</th>
<th>Kurtosis Statistic</th>
<th>SEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST-IA</td>
<td>77.44</td>
<td>-0.375</td>
<td>0.337</td>
<td>0.120</td>
<td>0.662</td>
</tr>
</tbody>
</table>

The scores for the ST-IA were analyzed by the participants’ age. Table 4.3 shows the range and the mean score for the 50 participants by age.
According to the scores on ST-IA the student participants in the 35-39 age range ($\bar{x}=53.20$) were the most tolerant of ambiguity. These students were, however, less tolerant of ambiguity that were participants in the original Budner (1962) study ($\bar{x}=45.00$). Students in the youngest age range, 25-29 years, were the least tolerant of ambiguity ($\bar{x}=60.00$). Finally, the scores for the ST-IA were analyzed by the gender of the participants (see Table 4.4).

**Table 4.3. Mean Scores for Tolerance-Intolerance of Ambiguity by Age of Participants**

<table>
<thead>
<tr>
<th>Age</th>
<th>N</th>
<th>$\bar{x}$</th>
<th>SD</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-29</td>
<td>21</td>
<td>60.00</td>
<td>7.72</td>
<td>43</td>
<td>77</td>
</tr>
<tr>
<td>30-34</td>
<td>11</td>
<td>53.45</td>
<td>8.82</td>
<td>37</td>
<td>66</td>
</tr>
<tr>
<td>35-39</td>
<td>5</td>
<td>53.20</td>
<td>11.51</td>
<td>35</td>
<td>66</td>
</tr>
<tr>
<td>40-44</td>
<td>3</td>
<td>56.00</td>
<td>4.58</td>
<td>52</td>
<td>61</td>
</tr>
<tr>
<td>Over 45</td>
<td>10</td>
<td>53.90</td>
<td>5.89</td>
<td>46</td>
<td>63</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>56.98</td>
<td>8.25</td>
<td>35</td>
<td>75</td>
</tr>
</tbody>
</table>

Female participants were more tolerant of ambiguity ($\bar{x}=55.88$) than male participants ($\bar{x}=59.25$). Although the difference was not significant between the two groups, it was of interest to note that the female participants were, as a group, more able to tolerate ambiguous situations than their male counterparts.
The results for the ST-IA were analyzed by Graduate Program (Master of Arts in Education, Master of Business Administration, Master of Science in Nursing, and Master of Science in Servant Leadership. The results by program are shown in Table 4.5.

Table 4.5. Mean Scores for Tolerance-Intolerance of Ambiguity by Program

<table>
<thead>
<tr>
<th>Program</th>
<th>N</th>
<th>X</th>
<th>SD</th>
<th>SEM</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAE</td>
<td>12</td>
<td>53.08</td>
<td>10.10</td>
<td>2.92</td>
<td>35.00</td>
<td>77.00</td>
</tr>
<tr>
<td>MSN</td>
<td>18</td>
<td>57.61</td>
<td>8.05</td>
<td>1.90</td>
<td>37.00</td>
<td>70.00</td>
</tr>
<tr>
<td>MBA</td>
<td>15</td>
<td>55.06</td>
<td>7.03</td>
<td>1.81</td>
<td>45.00</td>
<td>66.00</td>
</tr>
<tr>
<td>MSSL</td>
<td>5</td>
<td>54.60</td>
<td>9.32</td>
<td>4.17</td>
<td>43.00</td>
<td>66.00</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>54.42</td>
<td>8.25</td>
<td>1.17</td>
<td>35.00</td>
<td>75.00</td>
</tr>
</tbody>
</table>

Figure 4.1. Histogram for Participants’ ST-IA Score as Z-scores

As a group, the 50 student respondents’ scores for the Scale of Tolerance-Intolerance of Ambiguity were normally distributed (see Figure 4.1). As a group, the
female participants were more tolerant of ambiguity than the male participants. Students in the 35-39 age range, according to the scores on the Budner scale, were the most tolerant of ambiguity by age group, but were, as a group, less tolerant of ambiguity than the participants in the original Budner study ($\bar{X} = 45$). Those students in the youngest age range, 25-29 years, were, as a group, the least tolerant of ambiguity, with a mean score of 60. The range of scores for the present study, 34-77, was well within the range of scores that have been reported for the Budner scale, 20 to 80. None of the comparisons of the scores on the Tolerance-Intolerance of Ambiguity Scale, by program, age, or gender resulted in differences that were statistically different.

The second part of the comparison for research question one involved knowing about what student participants know and believe about the scholarly writing process at the master’s degree level. The next section details those results.

**Graduate Students’ Beliefs about the Scholarly Writing Process.** Graduate student participants (N=50) completed a researcher-designed survey that sought to paint a picture of their beliefs about the scholarly writing process. The Professional Writing Survey (PWS) was comprised of 22 Likert-style statements intended to measure the students’ beliefs about professional writing at the master’s degree level. The reliability (and validity) of the PWS measure had been substantiated (see pp. 55-57. However, in the original administrations of the PWS, items were analyzed according to thematic categories intuited by the researcher. This presented a need to determine if these clusters could be validated by statistical analysis, in essence, as well as to determine the corollary notion that the scale is uni- or multi-dimensional. Because I wished to analyze the survey as it stood, the unstandardized data for the scale were used.
Using SPSS (v. 21), an exploratory principal component analysis (PCA) was conducted to reduce the number of PWS items into fewer factors, to create a representation of these variables in a simpler, more parsimonious way. PCA is preferred over an exploratory factor analysis (EFA) when the goal is to derive fewer variables (rather than trying to understand the relations among the variables). Thus, principal component analysis was used to analyze the variance-covariance structure of the original 22 variables through a few linear combinations of these variables.

A PCA with orthogonal varimax rotation was conducted to assess how the 22 items clustered into factors. The assumptions of normality, linear relationships between pairs of variables, and the variables being correlated at a moderate level were checked. Tabachnick and Fidell (2001) remind us that “for grouped data, it is the sampling distributions of the means of variables that are to be normally distributed” (p. 72) and that with a minimum of 20 degrees of freedom for error, the distribution can be considered to be robust to violations of normality of variables, provided that there are no outliers. Since the skewness (and kurtosis) for the 22 items fell within an acceptable range the distribution of the data for the PWS was considered to meet the assumption of normality. Although the determinant of the covariance matrix was 2.41 X 10^{-6}, which suggested that the collinearity (correlations of items with one another) might be too high, this was likely due to the small sample size.

However, two additional tests verified that the data met the assumption of collinearity (items correlated with one another), and the assumption of linearity. The Kaiser-Meyer-Olkin (KMO), which measures the sampling adequacy of the items, was performed. This statistical test should result in a value greater than 0.5 for a satisfactory
factor analysis to proceed (see Table 4.6). The result for the present survey items produced a sampling adequacy of 0.78, which meant that the PCA was an acceptable analysis, and that there were a sufficient number of items for the factors. Bartlett’s Test of Sphericity addressed the assumption that variables should be correlated (moderately). This test result (see Table 4.6) with significance of .00 showed that the items were correlated (significantly differed from an identity matrix with zero correlations), and that this assumption was met.

Table 4.6. Tests of Sampling Adequacy for the Professional Writing Survey

<table>
<thead>
<tr>
<th>KMO and Bartlett's Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</td>
</tr>
<tr>
<td>Approx. Chi-Square</td>
</tr>
<tr>
<td>Bartlett's Test of Sphericity</td>
</tr>
<tr>
<td>Approx. Chi-Square</td>
</tr>
<tr>
<td>Sig.</td>
</tr>
</tbody>
</table>

The Eigenvalues, or total variance explained by the factors, after rotation were examined. Tabachnick and Fidell (2001) and other statisticians recommend that one criterion used to retain factors is to keep those with an Eigenvalue \( \geq 1.0 \). The rescaled Eigenvalues (see Table 4.7) show that the first six factors explain 75.44\% of the total variance in the data, which is considered quite good. After rotation, then, the first factor accounted for 17.67\% of the variance; the second factor accounted for 16.60\% of the variance; the third factor accounted for 15.66\% of the variance; the fourth factor accounted for 9.27\% of the variance; the fifth factor accounted for 9.17\% of the variance; and the sixth factor accounted for 7.07\% of the total variance.
### Table 4.7. Total Variance Explained—Professional Writing Survey Items

<table>
<thead>
<tr>
<th>Item</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loadings</th>
<th>Rotation Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Variance %</td>
<td>Cumulative %</td>
<td>Total Variance %</td>
</tr>
<tr>
<td>1</td>
<td>8.993</td>
<td>40.877</td>
<td>8.993</td>
</tr>
<tr>
<td>2</td>
<td>2.451</td>
<td>11.141</td>
<td>2.451</td>
</tr>
<tr>
<td>3</td>
<td>1.700</td>
<td>7.728</td>
<td>1.700</td>
</tr>
<tr>
<td>4</td>
<td>1.313</td>
<td>5.969</td>
<td>1.313</td>
</tr>
<tr>
<td>5</td>
<td>1.123</td>
<td>5.107</td>
<td>1.123</td>
</tr>
<tr>
<td>6</td>
<td>1.016</td>
<td>4.617</td>
<td>1.016</td>
</tr>
<tr>
<td>7</td>
<td>.837</td>
<td>3.805</td>
<td>.837</td>
</tr>
<tr>
<td>8</td>
<td>.816</td>
<td>3.709</td>
<td>.816</td>
</tr>
<tr>
<td>9</td>
<td>.621</td>
<td>2.821</td>
<td>.621</td>
</tr>
<tr>
<td>10</td>
<td>.547</td>
<td>2.489</td>
<td>.547</td>
</tr>
<tr>
<td>11</td>
<td>.463</td>
<td>2.104</td>
<td>.463</td>
</tr>
<tr>
<td>12</td>
<td>.418</td>
<td>1.898</td>
<td>.418</td>
</tr>
<tr>
<td>14</td>
<td>.323</td>
<td>1.466</td>
<td>.323</td>
</tr>
<tr>
<td>15</td>
<td>.208</td>
<td>.945</td>
<td>.208</td>
</tr>
<tr>
<td>16</td>
<td>.190</td>
<td>.862</td>
<td>.190</td>
</tr>
<tr>
<td>17</td>
<td>.185</td>
<td>.843</td>
<td>.185</td>
</tr>
<tr>
<td>18</td>
<td>.156</td>
<td>.710</td>
<td>.156</td>
</tr>
<tr>
<td>19</td>
<td>.097</td>
<td>.442</td>
<td>.097</td>
</tr>
<tr>
<td>20</td>
<td>.089</td>
<td>.403</td>
<td>.089</td>
</tr>
<tr>
<td>21</td>
<td>.061</td>
<td>.279</td>
<td>.061</td>
</tr>
<tr>
<td>22</td>
<td>.038</td>
<td>.171</td>
<td>.038</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.

Also as recommended (Tabachnick & Fidell, 2001 referencing Cattell, 1966), the second retention criterion measure employed was a Scree test (see Figure 4.2), which is a graph that displays the Eigenvalues plotted against the factors (or components). The Eigenvalues are plotted against the number of factors from largest to smallest and connected. The Scree plot is then used to determine the number of factors or components to be retained by observing where the downward descending curve straightens into a
much more gentle (almost level) slope (Tabachnick & Fidell, 2001). The Scree plot indicates that the curve flattens where the Eigenvalues decline below a value of less than 1.0. This result supports a six-component solution.

![Scree Plot](image)

**Figure 4.2. Scree Plot for the Items in the Professional Writing Scale**

After these criteria were applied to the principal component analysis of the 22 items on the Professional Writing Scale, six factors emerged, as opposed to the original four that had been intuitively utilized in prior research with the scale. The six factors with their labels were as follows:

(a) *Factor One* – Writing Mechanics (WM) that included items 12: I have strong writing vocabulary, 13: Grammar/usage is nearly always correct, 14: I know how to correctly use all punctuation marks, and 15: I have strong editing skills;

(b) *Factor Two*—Writing Ability (WA) that included items 6: I enjoy the process of creating a written product, 16: My writing is engaging, 18: I am confident in my ability to write in APA style, and 20: I am comfortable writing research papers;
(c) **Factor Three**—Comfort Receiving Feedback (CRF) that included items 2: I am comfortable sharing my writing with others, 3: I am comfortable having others critique my writing and receiving their verbal feedback, 4: I am comfortable having others critique my writing and receiving their written feedback, and 22: I understand when to cite the works of others when writing a research paper;

(d) **Factor Four**—Comfort Giving Feedback (CGF) that included items 8: I am comfortable critiquing the writing of others and providing verbal feedback, and 9: I am comfortable critiquing the writing of others and providing written feedback; (e) **Factor Five**—Writing Process (WP) that included items 7: I always brainstorm before I begin to write, 10: I always do more than one draft, and 17: I do not procrastinate; and

(f) **Factor Six**—Desire to Improve (DtI) that included items 11: I seek out the advice of others, and 19: I welcome strategies to improve my writing.

The Rotated Factor Matrix table (see Table 4. 8) reveals how the final factors relate to each other in linear combinations after rotation, and allows for interpretation of simplicity of structure. The orthogonal varimax rotation produces final factors that lie at a right angle to one another, and thus, each factor is independent of the information contained in the other components (Leech, Barrett, & Morgan, 2011). The analysis shows the item loadings, sorting them into overlapping groups, or clusters. The items are listed with the highest factor weight or loading down to the lowest. Although Tabachnick and Fidell (among others) note that items loading higher than .30 (positive or negative) are retained for a factor, and that loadings in excess of .63 (40% overlapping variance) are “very good,” and loadings greater than .71 (50% overlapping variance) are considered “excellent” (p. 640). With the small N in this study, it seemed prudent to set a much more
stringent cutoff. Thus, choosing to apply a .60 component loading benchmark led to eliminating three items from the Professional Writing Survey, as they were not sufficiently correlated to any of the factors for inclusion: item 11—I am confident in my abilities; item 5—My ideas flow—I rarely get stuck; and, item 21—I understand how to cite the works of others when writing a research paper, (see Table 4.8). The .60 criterion also allowed for cleaner loadings where some items might have cross-loaded.
The items for the Professional Writing Survey were also analyzed for

**communality**, or the extent to which any one item correlates with all other items. The communalities were inspected, then, to determine if the solutions (i.e., factors or components) defined the variables well. Higher communalities are better. If communalities for a particular variable are low (between 0.0-0.4), then that variable likely will not load significantly on any factor. As may be seen in Table 4.9,
communalities ($h^2$) are quite good, and one may infer that the variables were well defined by the six-factor solution.

Table 4.9. Communalities Professional Writing Survey Items

<table>
<thead>
<tr>
<th>Item</th>
<th>$h^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confident in abilities</td>
<td>.484</td>
</tr>
<tr>
<td>Comfortable sharing</td>
<td>.775</td>
</tr>
<tr>
<td>Comfortable receiving verbal critique</td>
<td>.842</td>
</tr>
<tr>
<td>Comfortable receiving written critique</td>
<td>.794</td>
</tr>
<tr>
<td>Ideas flow</td>
<td>.645</td>
</tr>
<tr>
<td>Enjoy writing process</td>
<td>.780</td>
</tr>
<tr>
<td>Brainstorm before</td>
<td>.748</td>
</tr>
<tr>
<td>Comfortable giving verbal critique</td>
<td>.845</td>
</tr>
<tr>
<td>Comfortable giving written critique</td>
<td>.908</td>
</tr>
<tr>
<td>Always do multiple drafts</td>
<td>.541</td>
</tr>
<tr>
<td>Seek advice of others</td>
<td>.744</td>
</tr>
<tr>
<td>Strong writing vocabulary</td>
<td>.808</td>
</tr>
<tr>
<td>Grammar nearly always correct</td>
<td>.852</td>
</tr>
<tr>
<td>Correct punctuation</td>
<td>.678</td>
</tr>
<tr>
<td>Strong editing skills</td>
<td>.757</td>
</tr>
<tr>
<td>My writing is engaging</td>
<td>.792</td>
</tr>
<tr>
<td>I do not procrastinate</td>
<td>.673</td>
</tr>
<tr>
<td>Confident in APA style</td>
<td>.692</td>
</tr>
<tr>
<td>Welcome strategies improve</td>
<td>.847</td>
</tr>
<tr>
<td>Comfortable writing research</td>
<td>.820</td>
</tr>
<tr>
<td>Understand how to cite</td>
<td>.796</td>
</tr>
<tr>
<td>Understand when to cite</td>
<td>.775</td>
</tr>
</tbody>
</table>

In summary, the six statistically determined factors seemed solid. In comparing these to the originally intuited four factors, the similarities were strong (writing process, writing mechanics, and writing ability were common to both).
When PCA is utilized, the analysis error and the specific variance are reported together as the unique variance. Using a .60 cutoff for the correlation of the items, six factors were identified from the original 22 items for the Professional Writing Survey. Following the principal component analysis of the 22 items on the Professional Writing Scale, six factors emerged as opposed to the original four that had been intuitively utilized in prior research with the scale. The six factors were:

(a) *Factor One*—Writing Mechanics (WM) that included items 12: I have strong writing vocabulary, 13: Grammar/usage is nearly always correct, 14: I know how to correctly use all punctuation marks, and 15: I have strong editing skills;

(b) *Factor Two*—Writing Ability (WA) that included items 6: I enjoy the process of creating a written product, 16: My writing is engaging, 18: I am confident in my ability to write in APA style, and 20: I am comfortable writing research papers;

(c) *Factor Three*—Comfort Receiving Feedback (CRF) that included items 2: I am comfortable sharing my writing with others, 3: I am comfortable having others critique my writing and receiving their verbal feedback, 4: I am comfortable having others critique my writing and receiving their written feedback, and 22: I understand when to cite the works of others when writing a research paper;

(d) *Factor Four*—Comfort Giving Feedback (CGF) that included items 8: I am comfortable critiquing the writing of others and providing verbal feedback, and 9: I am comfortable critiquing the writing of others and providing written feedback;

(e) *Factor Five*—Writing Process (WP) that included items 7: I always
brainstorm before I begin to write, 10: I always do more than one draft, and 17: I do not procrastinate; and

(f) Factor Six—Desire to Improve (DtI) that included items 11: I seek out the advice of others, and 19: I welcome strategies to improve my writing.

The Principal Component Analysis (PCA) resulted in three items (1–“I am confident in my abilities”, item 5 – “My ideas flow – I rarely get stuck”, and item 21 – “I understand how to cite the works of others when writing a research paper”), being eliminated from the survey, as they were not sufficiently correlated to any of the factors for inclusion (see Table 4.10).

Table 4.10. Professional Writing Survey Rotated Component Matrix

<table>
<thead>
<tr>
<th>#</th>
<th>Item</th>
<th>Component 1</th>
<th>Component 2</th>
<th>Component 3</th>
<th>Component 4</th>
<th>Component 5</th>
<th>Component 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.</td>
<td>strong editing</td>
<td>.767</td>
<td>.217</td>
<td>.156</td>
<td>.295</td>
<td>-.079</td>
<td>.061</td>
</tr>
<tr>
<td>12.</td>
<td>strong vocab</td>
<td>.751</td>
<td>.436</td>
<td>.054</td>
<td>.144</td>
<td>.173</td>
<td>.028</td>
</tr>
<tr>
<td>14.</td>
<td>correct punctuation</td>
<td>.738</td>
<td>.130</td>
<td>.122</td>
<td>.284</td>
<td>-.142</td>
<td>-.007</td>
</tr>
<tr>
<td>16.</td>
<td>writing engages</td>
<td>.363</td>
<td>.777</td>
<td>.098</td>
<td>.204</td>
<td>.030</td>
<td>.071</td>
</tr>
<tr>
<td>6.</td>
<td>enjoy writing process</td>
<td>.281</td>
<td>.746</td>
<td>.178</td>
<td>-.014</td>
<td>.176</td>
<td>.286</td>
</tr>
<tr>
<td>20.</td>
<td>comfort writing research</td>
<td>.076</td>
<td>.687</td>
<td>.513</td>
<td>.280</td>
<td>.000</td>
<td>-.014</td>
</tr>
<tr>
<td>18.</td>
<td>confident APA</td>
<td>.235</td>
<td>.659</td>
<td>.262</td>
<td>.340</td>
<td>.134</td>
<td>-.031</td>
</tr>
<tr>
<td>21.</td>
<td>understand how cite</td>
<td>.280</td>
<td>.540</td>
<td>.397</td>
<td>.517</td>
<td>.019</td>
<td>-.019</td>
</tr>
<tr>
<td>5.</td>
<td>ideas flow</td>
<td>.485</td>
<td>.536</td>
<td>.296</td>
<td>-.161</td>
<td>.093</td>
<td>-.009</td>
</tr>
<tr>
<td>3.</td>
<td>comfort receive verb critique</td>
<td>.009</td>
<td>.088</td>
<td>.839</td>
<td>.170</td>
<td>.207</td>
<td>.243</td>
</tr>
<tr>
<td>4.</td>
<td>comfort receive written critique</td>
<td>.119</td>
<td>.203</td>
<td>.771</td>
<td>.070</td>
<td>.285</td>
<td>.242</td>
</tr>
<tr>
<td>2.</td>
<td>comfort share</td>
<td>.327</td>
<td>.334</td>
<td>.742</td>
<td>.057</td>
<td>.010</td>
<td>.046</td>
</tr>
<tr>
<td>22.</td>
<td>understand when cite</td>
<td>.174</td>
<td>.397</td>
<td>.635</td>
<td>.394</td>
<td>-.017</td>
<td>-.166</td>
</tr>
<tr>
<td>1.</td>
<td>confident abilities</td>
<td>.369</td>
<td>.353</td>
<td>.457</td>
<td>.010</td>
<td>-.057</td>
<td>-.108</td>
</tr>
<tr>
<td>9.</td>
<td>comfort give written critique</td>
<td>.426</td>
<td>.159</td>
<td>.196</td>
<td>.794</td>
<td>.134</td>
<td>.122</td>
</tr>
<tr>
<td>8.</td>
<td>comfort give verb critique</td>
<td>.437</td>
<td>.206</td>
<td>.145</td>
<td>.658</td>
<td>.362</td>
<td>.159</td>
</tr>
<tr>
<td>7.</td>
<td>brainstorm before</td>
<td>.010</td>
<td>.092</td>
<td>-.032</td>
<td>.054</td>
<td>.840</td>
<td>-.174</td>
</tr>
<tr>
<td>17.</td>
<td>no procrastinate</td>
<td>-.113</td>
<td>-.210</td>
<td>.429</td>
<td>.090</td>
<td>.627</td>
<td>.176</td>
</tr>
<tr>
<td>10.</td>
<td>multiple draft</td>
<td>.056</td>
<td>.270</td>
<td>.173</td>
<td>.111</td>
<td>.624</td>
<td>.180</td>
</tr>
<tr>
<td>19.</td>
<td>welcome strategies improve</td>
<td>-.233</td>
<td>.254</td>
<td>.127</td>
<td>.162</td>
<td>-.202</td>
<td>.804</td>
</tr>
<tr>
<td>4.</td>
<td>seek advice</td>
<td>.323</td>
<td>-.095</td>
<td>.145</td>
<td>-.016</td>
<td>.292</td>
<td>.724</td>
</tr>
</tbody>
</table>
In terms of the relationship between how students understand and what they know about the writing process at the master’s level and their level of tolerance-intolerance for ambiguity, it was necessary to convert all of the data to standard scores (z-scores) to compare scores across multiple data sets. When that data from two different data sets have different distributions, as these two measures, it may be difficult to compare or contrast the data from the measures. Z-scores are standard deviation units that result when the raw data measures are converted to standard deviation units, and are often referred to as standardized scores. The use of the standard score enabled me to see the scores from the Professional Writing Survey (reported by the six factors) as compared to the scores from the Scale of Tolerance-Intolerance of Ambiguity. The standard scores, once converted, showed how individual scores fell in relation to the mean. The original mean scores (see Table 4.11) and the converted z-scores (see Table 4.12) are presented here.

Table 4.11. *Descriptive Statistics Writing Factors*

<table>
<thead>
<tr>
<th>Writing Factor</th>
<th>x</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing Factor 1</td>
<td>3.55</td>
<td>1.01</td>
<td>50</td>
</tr>
<tr>
<td>Writing Factor 2</td>
<td>4.04</td>
<td>1.08</td>
<td>50</td>
</tr>
<tr>
<td>Writing Factor 3</td>
<td>4.13</td>
<td>.78</td>
<td>50</td>
</tr>
<tr>
<td>Writing Factor 4</td>
<td>3.64</td>
<td>1.09</td>
<td>50</td>
</tr>
<tr>
<td>Writing Factor 5</td>
<td>3.35</td>
<td>.93</td>
<td>50</td>
</tr>
<tr>
<td>Writing Factor 6</td>
<td>4.26</td>
<td>.63</td>
<td>50</td>
</tr>
</tbody>
</table>
Table 4.12. Estimated Marginal Mean Scores for the Factors from the Professional Writing Survey

<table>
<thead>
<tr>
<th>Variable</th>
<th>$\bar{x}$</th>
<th>Std. Error</th>
<th>Upper Bound</th>
<th>Lower Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zscore: Writing_Factor1_WM</td>
<td>.087$^a$</td>
<td>.177</td>
<td>-.276</td>
<td>.449</td>
</tr>
<tr>
<td>Zscore: Writing_Factor2_WA</td>
<td>.021$^a$</td>
<td>.170</td>
<td>-.329</td>
<td>.370</td>
</tr>
<tr>
<td>Zscore: Writing_Factor3_CR-F</td>
<td>.139$^a$</td>
<td>.186</td>
<td>-.243</td>
<td>.521</td>
</tr>
<tr>
<td>Zscore: Writing_Factor4_CG-F</td>
<td>.013$^a$</td>
<td>.183</td>
<td>-.361</td>
<td>.388</td>
</tr>
<tr>
<td>Zscore: Writing_Factor5_WP</td>
<td>.230$^a$</td>
<td>.181</td>
<td>-.141</td>
<td>.600</td>
</tr>
<tr>
<td>Zscore: Writing_Factor6_DTI</td>
<td>.080$^a$</td>
<td>.157</td>
<td>-.242</td>
<td>.402</td>
</tr>
</tbody>
</table>

Disaggregating the students by their program of enrollment for Factor One (Writing Mechanics) students from the schools of Education and Nursing scored closest to the mean with -.024 and .024 respectively. Students from the school of Business were slightly further below the mean at -.044, and students from the Servant Leadership Program were moderately above the mean at .644. When examining the scores for Factor One by the gender of the respondents, males were moderately below the mean at -.351 and females were slightly above the mean with average scores of .067. The standard scores for Factor One were examined by the respondents’ age; students in the 25-29 year range scored the closest to, and slightly the mean; those in the 30-34 age range and the 35-40 age range also scored near, yet slightly below the mean. The students in the 40-44 age range scored well above the mean.

For Factor Two (Writing Ability), the students from the school of Nursing scored closest to the mean with an average standard score of .044. Students from the school of Education were slightly above the mean as a group with a mean score of .3177. Students from Business and Servant Leadership were slightly below the mean at -.218 and -.269 respectively. By gender, males were below the mean for this factor with an average score
of -.179 and females were slightly above the mean as a group with an average score of .034. According to their age, for Factor Two, students in the 35-40 age range scored well below the mean score, and, similar to the results for Factor One, those in the 40-44 age range scored well above the mean.

For Factor Three (Comfort Receiving Feedback) students from the Nursing program (.070) and those from the Servant Leadership program (-.095) scored the closest to the mean, while the students from the school of Education were moderately above the mean with an average standard score of .528; students from the school of Business were moderately above the mean with an average standard score of -.306. By gender, males scored slightly above the mean at .198 and females were very near the mean at -.038. Examining Factor Three by the respondents’ age, students who were at the youngest age range (25-29) scored well below the mean score, and, again, the students in the 40-44 year age range most strongly identified with the items in this factor.

An analysis of Factor Four (Comfort Giving Feedback) disaggregated by the school of enrollment evinced that the students from the school of education scored closest to the mean with an average standard score of -.051, and nursing students scored just slightly above the mean at .126. Moderately above the mean were the students from the servant leadership program (.420) and below the mean at -.250 were the students from the school of business. Males scored below the mean for this factor at -.242 and females were close to the mean with an average standard score of .046. According to the analysis of this factor by the students’ age, students in the 35-39 year age range reported the lowest scores in terms of their comfort providing feedback for scholarly writing assignments to
peers; once again, those in the 40-44 year age range reported that they were the most comfortable providing on writing assignments feedback to peers.

Analysis of the results for Factor Five (Writing Process) (specifically looking at the individual programs) revealed that the students from the school of education were moderately above the mean with an average standard score of .366, and students from the servant leadership program were well above the mean at .623. The nursing students, as a group, were just slightly below the mean (-.101) and those from the school of business were moderately below the mean at -.380. The scores for the writing process by gender showed females were just below the mean at -.090, and males were moderately above the mean with an average standard score of .470. An analysis of the data for Factor Five by students’ age groups, showed that the youngest student respondents (the 25-29 year age range) had the weakest response to items about the writing process, and those in the 40-44 year age range were the students to have the strongest response to the items in this category.

Finally, the results for Factor Six (Desire to Improve) revealed that students from the servant leadership program (.237) and those from the school of education (.483) were above the mean. Those from the schools of business and nursing were slightly below the mean with standard scores of -.080 and -.176 respectively. Looking along gender lines, both males (-.099) and females (.019) were close to the mean for this factor. By age, the students who were over the age of 45 scored the lowest in terms of their desire to improve their scholarly writing skills, and those in the 30-34 year age range scored the highest in terms of their desire to improve their scholarly writing skills.
Correlations between Students’ ST-IA and Assumptions about Writing.

Several significant relationships and a few very significant relationships were found to exist between and among the writing factors. In looking at Factor One (Writing Mechanics), a very significant relationship was found to exist between Factor One and Factor Two ($p=.001$), and a very significant relationship between Factor One and Factor Four ($p=.001$). In addition, a significant relationship was found to exist between Factor One and Factor Three ($p=.017$).

When examining the relationships that existed for Factor Two, Writing Ability, very significant relationships were found to exist between Factor Two and Factors Three and Four ($p=.001$ respectively) and a significant relationship existed between Factor Two and Factor Six ($p=.014$). Factors Three and Four, Comfort Receiving Feedback and Comfort Giving Feedback, were found to have significant or very significant relationships with all of the other remaining writing factors.

Factor Five (Writing Process) was found to be significantly related to Factor Three ($p=.003$), Factor Four ($p=.015$), and Factor Six ($p=.049$). Factor Six (Desire to Improve) was found to have significant relationships with three of the other writing factors, including Factor Two ($p=.014$), Factor Three ($p=.031$), and Factor Five ($p=.031$).

In terms of specific correlations between students’ tolerance or intolerance of ambiguity and their assumptions about the scholarly writing process at the master’s degree level, no significant relationships emerged from the data between students’ scores on the ST-IA and their assumptions about the scholarly writing process, as measured by the six factors of the Professional Writing Survey. Thus, the results for Research Question 1, “What correlation exists between the trait of ambiguity tolerance and the assumptions that
graduate students have about their scholarly writing?” indicated no clear correlations between students’ level of ambiguity tolerance and the assumptions that they held regarding the scholarly writing process at the master’s degree level.

Results for Research Question Two

Introduction. Participants were asked to complete a survey that was originally used in a study done by Getzlaf and her research associates in 2009. The Getzlaf group investigated student perception of effective instructor feedback in online graduate programs utilizing 30 graduate students from two programs. The instrument was utilized for the 2009 Getzlaf study, however after a complete search of the current literature, no validity or reliability statistics were available for the tool. As a result, I conducted statistical analyses to determine that the items that comprised the Getzlaf Feedback Survey were, in fact reliable and could be utilized for the present study.

Students were asked the following question: What forms of support do you generally find most helpful as you complete writing assignments? Respondents were asked to list in order of preference all of the types of feedback that they prefer to receive from their instructors. To further delve into how the respondents utilized supports during the writing process, their responses to the statements regarding forms of support most utilized were analyzed by the graduate program of the respondents.

Feedback Survey—student responses. The faculty participants were asked to identify their general expectations of graduate scholarly writing in an open-ended question. Their responses by the program for which they were teaching are presented here. For instructors who teach in the Master of Arts in Education (5), an expectation that students be able to adhere to the standards of the American Psychological Association
(APA) was the most common response, noted by four of the five instructors for that program. Also expected was the use of correct grammar, and that the overall quality of the writing be organized, clear and concise. In addition, one faculty member provided the expectation of evidence that the work was fully edited prior to submission, and that students were willing to re-write until the writing met the standards for the assignment and that improvement from first to final draft was evident.

Table 4.13. *Student Preferences for Forms of Writing Support from Their Instructors*

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Percent</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Having your instructor provide samples of similar writing and then discussing</td>
<td>70</td>
<td>35</td>
</tr>
<tr>
<td>the samples with him or her</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emailing your question or questions to your instructor</td>
<td>64</td>
<td>32</td>
</tr>
<tr>
<td>Seeking advice from peers in your degree program</td>
<td>64</td>
<td>32</td>
</tr>
<tr>
<td>Asking your instructor to read a draft of your work</td>
<td>56</td>
<td>28</td>
</tr>
<tr>
<td>Seeking advice from a colleague</td>
<td>44</td>
<td>22</td>
</tr>
<tr>
<td>Seeking advice from a family member or friend outside of school or work</td>
<td>44</td>
<td>22</td>
</tr>
<tr>
<td>Taking time on your own to find examples of similar writing to review</td>
<td>42</td>
<td>21</td>
</tr>
<tr>
<td>Reviewing resources available on course communication software site</td>
<td>36</td>
<td>18</td>
</tr>
<tr>
<td>Scheduling an in-person meeting with your instructor</td>
<td>28</td>
<td>14</td>
</tr>
<tr>
<td>Seeking assistance from a writing center</td>
<td>26</td>
<td>13</td>
</tr>
</tbody>
</table>

Student respondents were asked how their Graduate faculty instructors communicated their expectations to students in terms of the scholarly writing assignments. Those results can be seen, by program of enrollment, in Table 4.14.
Table 4.1. Communication of Writing Expectations to Students by Faculty

<table>
<thead>
<tr>
<th>Method of Communicating Expectations</th>
<th>MAE</th>
<th>MSN</th>
<th>MBA</th>
<th>MSSL</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Descriptions on Syllabi</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>In-class discussions</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Rubrics</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Written comments on assignments</td>
<td>100%</td>
<td>100%</td>
<td>85.7%</td>
<td>100%</td>
<td>93%</td>
</tr>
<tr>
<td>Providing samples of written assignments</td>
<td>80%</td>
<td>100%</td>
<td>57.1%</td>
<td>100%</td>
<td>73.3%</td>
</tr>
<tr>
<td>Individual conferences during office hours</td>
<td>60%</td>
<td>100%</td>
<td>71.4%</td>
<td>100%</td>
<td>73.3%</td>
</tr>
<tr>
<td>Online discussions via Course Management Software</td>
<td>40%</td>
<td>60%</td>
<td>57.1%</td>
<td>100%</td>
<td>60%</td>
</tr>
</tbody>
</table>

In addition, the data for how faculty communicated their expectations to students in terms of scholarly writing assignments are also presented for the group of student respondents. These can be seen in Table 4.15.

Table 4.15. Student Responses—How Do Instructors Communicate Expectations?

<table>
<thead>
<tr>
<th>Choices</th>
<th>Percent</th>
<th>n=</th>
</tr>
</thead>
<tbody>
<tr>
<td>Descriptions on the course syllabus</td>
<td>84</td>
<td>42</td>
</tr>
<tr>
<td>In-class discussions</td>
<td>80</td>
<td>40</td>
</tr>
<tr>
<td>Rubrics that outline the assignment criteria</td>
<td>78</td>
<td>39</td>
</tr>
<tr>
<td>Comments on returned assignments</td>
<td>64</td>
<td>32</td>
</tr>
<tr>
<td>Sample student work</td>
<td>40</td>
<td>20</td>
</tr>
<tr>
<td>Online groups discussions through Blackboard</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>Samples of the instructor's writing</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td>One-to-one discussions with your instructor during office hours</td>
<td>12</td>
<td>6</td>
</tr>
</tbody>
</table>

Feedback Survey—faculty responses. The faculty participants were asked to identify their general expectations of graduate scholarly writing in an open-ended question. I will share their responses by the program for which they currently teach. For instructors were teaching in the Master of Arts in Education (n=5), an expectation that students be able to adhere to the standards of the American Psychological Association (APA) was the most common response, noted by four of the five instructors for that
program. Also expected was the use of correct grammar, and that the overall quality of the writing be organized, clear and concise. In addition, one faculty member provided the expectation of evidence that the work was fully edited prior to submission, and that students were willing to re-write until the writing met the standards for the assignment and that improvement from first to final draft was evident.

Similar expectations were evident from the open-ended responses of the nursing faculty (n=2), who stated that generalizing feedback to future assignments, the ability to synthesize material and present in a coherent piece of writing, and that students utilize all available resources and solicit help if needed should be expected of Graduate student writers. One of the respondents also stated an expectation that students utilize writing groups to improve their scholarly writing.

From the instructors in the Master of Business Administration program (n=6), expectations for clear, concise, grammatically correct writing were cited from three of the six respondents. Also stated was an expectation that the writing “be compelling”, “show critical thinking”, “incorporate sources effectively”, and “advance the discussion in an important way”. Another instructor for the MBA program added that students’ writing should be “professional in an applied sense, and should utilize APA style effectively to cite sources. Still another MBA faculty member shared that there must be stated an expectation that students use quality sources, and that students’ writing must include the development of new ideas, and that it demonstrate that they are “‘synthesizing not parroting” the sources. Finally, an instructor shared that scholarly writing in the MBA program should reflect that the students’ writing tell a story, as opposed to a report of “she said this, and then they said that”.

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In conclusion, the faculty respondents from the Master of Science in Servant Leadership imparted that expectations of Graduate student writing should be demonstrated by pieces that were “clear, coherent, and compelling”, and that the students have command of the APA conventions and produce “grammatically correct, complex, accurate, churned information”.

The faculty respondents were also asked to convey the forms of support that they provided for their students in the process of supporting scholarly writing. The respondents were asked to rate each of the 10 strategies with a score—10 being the strategy that they would most often utilize for supporting students in the scholarly writing process, and one being the strategy that they would least likely utilize for supporting students in the scholarly writing process. The results for faculty responses by program can be seen in Table 4.16.
Table 4.16. *Forms of Writing Support Utilized by the Faculty Respondents by Program*

<table>
<thead>
<tr>
<th>Form of Writing Support</th>
<th>MAE</th>
<th>MSN</th>
<th>MBA</th>
<th>MSSL</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Suggesting outside support, such as the services of a paid editor.</td>
<td>8.20</td>
<td>9.50</td>
<td>10.00</td>
<td>10.00</td>
<td>9.44</td>
</tr>
<tr>
<td>2. Referring students to the campus writing center</td>
<td>10.00</td>
<td>6.00</td>
<td>4.29</td>
<td>4.00</td>
<td>6.31</td>
</tr>
<tr>
<td>3. Suggesting that students form writing support groups</td>
<td>7.40</td>
<td>6.50</td>
<td>6.43</td>
<td>2.00</td>
<td>6.19</td>
</tr>
<tr>
<td>4. Referring students to resources on the course management system</td>
<td>9.40</td>
<td>4.50</td>
<td>5.29</td>
<td>3.50</td>
<td>6.25</td>
</tr>
<tr>
<td>5. Answering students’ writing questions by telephone</td>
<td>4.80</td>
<td>1.50</td>
<td>5.43</td>
<td>2.00</td>
<td>4.31</td>
</tr>
<tr>
<td>6. Providing samples of writing and discussing in class</td>
<td>3.80</td>
<td>5.00</td>
<td>4.57</td>
<td>2.00</td>
<td>4.36</td>
</tr>
<tr>
<td>7. Utilizing individual conferencing during class time</td>
<td>1.00</td>
<td>8.00</td>
<td>6.14</td>
<td>5.50</td>
<td>4.69</td>
</tr>
<tr>
<td>8. Scheduling an individual meeting outside of class time</td>
<td>2.80</td>
<td>2.00</td>
<td>5.50</td>
<td>3.00</td>
<td>3.69</td>
</tr>
<tr>
<td>9. Providing feedback on a first draft of an assignment</td>
<td>2.80</td>
<td>7.00</td>
<td>2.29</td>
<td>2.00</td>
<td>3.00</td>
</tr>
<tr>
<td>10. Other</td>
<td>3.40</td>
<td>1.00</td>
<td>2.29</td>
<td>1.50</td>
<td>2.57</td>
</tr>
</tbody>
</table>

Referring students to the campus writing center was reported unanimously by the faculty in the Master of Arts in Education program (n=5). The faculty members from two programs, Master of Business Administration and Master of Science in Servant
Leadership also unanimously reported that they recommended that students enlist outside support, such as the services of a paid editor, as a form of student scholarly writing support.

**Correlations between faculty feedback and student perceptions.** On the faculty side, the respondents were asked to report which strategies they preferred to utilize in supporting their Graduate student writers. The most frequently utilized support that writing instructors reported was that of suggesting that a student seek outside support, such as engaging the services of a paid editor. The next most frequently cited form of support for the faculty who responded was to refer students to the campus writing center (which was the last on the list of the students’ preferred forms of faculty support). Following close behind were the strategies of suggesting that students form writing support groups, or referring students to information that could be found on the course management software site. Only 36% of the student respondents reported to this latter form of writing support. These strategies were followed by providing samples of writing and then discussing them in class, falling near the middle of the list of strategies that were utilized by the faculty members, but at the top of the list in terms of student preferences; further down the list were utilizing class time to hold individual conferences, scheduling a face-to-face individual conference using out of class time, and finally, providing feedback on a first draft of an assignment prior to the due date.

In terms of how the faculty writing instructors communicated their expectations to students for scholarly writing assignments, the most frequently utilized forms of communication to convey expectations for scholarly writing included descriptions of written assignments on the course syllabi, having in-class discussions about the precise
expectations for a piece of scholarly writing, providing individual rubrics for written work that clearly outlined the expectations for the assignment, or utilizing written comments on returned writing assignments to convey the specific expectations for the piece of writing. Less frequently utilized strategies were providing samples of written work that paralleled the scholarly piece of writing that was assigned, holding individual writing conferences during typical office hours, or conducting online discussions by way of the course management software (Blackboard, Moodle, Angel, or Desire to Learn).

After examining the forms of writing support that student respondents prefer from their faculty advisors, several strategies rose to the top and are presented here in order of decreasing frequency. Seventy percent of the student respondents (n=35) stated that they preferred their writing instructors to provide samples of similar written products and follow up with a class discussion about the sample, while only 14% of the faculty members reported that this was a strategy that they currently utilized in providing support to their graduate mentee. Sixty-four percent (n=32) of the respondents were nearly as likely to prefer that their instructors provide feedback or answers to questions that the student sent via email message, or to seek advice from their peers in the degree program. Finally, over fifty percent (n=28) reported that they preferred to have their writing instructor read an early draft of a writing assignment and provide feedback prior to the final submission date. These four strategies were followed by such supports as seeking advice from a colleague, a family member, or a friend, or using one’s own time to find examples of similar written work to utilize in the writing process. Near the bottom of the list, in terms of the percent of the students who preferred the strategy were reviewing the resources that were made available on the course management software site (such as
Blackboard, Moodle, Angel, or Desire to Learn), scheduling a face-to-face meeting with the instructor for support, and at the end of the list, with only 26% (n=13) reporting a preference for the strategy, was seeking assistance from a writing center.

The general intent for the present study was to examine the multiple relationships that existed among the variables of what graduate students know and believe about the scholarly writing process at the master’s degree level (as measured by the six Writing Factors from the Professional Writing Scale), how feedback exists as part of the scholarly writing process (as measured by the composite score of the Feedback Scale (Getzlaf et al., 2009), and the trait of ambiguity tolerance or intolerance and its role in the scholarly writing process. By using correlational analysis, which is indicated for studies with small samples, in this case the Spearman Rho, I examined the strength of these associations in terms of the degree to which each was related to the other variables of the study. The results of the correlational analysis can be found in Table 4.17.
Table 4.17. Correlational Analysis of the Writing Factors, ST-IA, & Feedback Composite

<table>
<thead>
<tr>
<th>Factor One</th>
<th>Correlation Coefficient</th>
<th>.485**</th>
<th>.335*</th>
<th>.552**</th>
<th>.112</th>
<th>.057</th>
<th>-.063</th>
<th>.059</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spearsman’s rho</td>
<td>Sig.</td>
<td>.000</td>
<td>.017</td>
<td>.000</td>
<td>.440</td>
<td>.693</td>
<td>.661</td>
<td>.684</td>
</tr>
<tr>
<td>(2-tailed)</td>
<td>Correlation Coefficient</td>
<td>.485**</td>
<td>1.000</td>
<td>.642**</td>
<td>.550**</td>
<td>.244</td>
<td>.345**</td>
<td>-.130</td>
</tr>
<tr>
<td>Factor Two</td>
<td>Correlation Coefficient</td>
<td>.335*</td>
<td>.642**</td>
<td>1.000</td>
<td>.518**</td>
<td>.412**</td>
<td>.305*</td>
<td>-.308*</td>
</tr>
<tr>
<td>Spearsman’s rho</td>
<td>Sig.</td>
<td>.017</td>
<td>.000</td>
<td>.000</td>
<td>.087</td>
<td>.014</td>
<td>.367</td>
<td>.151</td>
</tr>
<tr>
<td>(2-tailed)</td>
<td>Correlation Coefficient</td>
<td>.552**</td>
<td>.550**</td>
<td>.518**</td>
<td>1.000</td>
<td>.343*</td>
<td>.292*</td>
<td>-.189</td>
</tr>
<tr>
<td>Factor Three</td>
<td>Correlation Coefficient</td>
<td>.112</td>
<td>.244</td>
<td>.412**</td>
<td>.343*</td>
<td>1.000</td>
<td>.279*</td>
<td>-.082</td>
</tr>
<tr>
<td>Spearsman’s rho</td>
<td>Sig.</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.015</td>
<td>.039</td>
<td>.188</td>
<td>.277</td>
</tr>
<tr>
<td>(2-tailed)</td>
<td>Correlation Coefficient</td>
<td>.440</td>
<td>.087</td>
<td>.003</td>
<td>.015</td>
<td>.049</td>
<td>.572</td>
<td>.932</td>
</tr>
<tr>
<td>Factor Four</td>
<td>Correlation Coefficient</td>
<td>.057</td>
<td>.345*</td>
<td>.305*</td>
<td>.292*</td>
<td>.279*</td>
<td>1.000</td>
<td>-.306*</td>
</tr>
<tr>
<td>Spearsman’s rho</td>
<td>Sig.</td>
<td>.693</td>
<td>.014</td>
<td>.031</td>
<td>.039</td>
<td>.049</td>
<td>.031</td>
<td>.102</td>
</tr>
<tr>
<td>(2-tailed)</td>
<td>Correlation Coefficient</td>
<td>-.063</td>
<td>-.130</td>
<td>-.308*</td>
<td>-.189</td>
<td>-.082</td>
<td>-.306*</td>
<td>1.000</td>
</tr>
<tr>
<td>Factor Six</td>
<td>Correlation Coefficient</td>
<td>.661</td>
<td>.367</td>
<td>.030</td>
<td>.188</td>
<td>.572</td>
<td>.031</td>
<td>.022</td>
</tr>
<tr>
<td>Spearsman’s rho</td>
<td>Sig.</td>
<td>.059</td>
<td>-.206</td>
<td>-.037</td>
<td>-.157</td>
<td>.012</td>
<td>-.234</td>
<td>.324*</td>
</tr>
<tr>
<td>(2-tailed)</td>
<td>Correlation Coefficient</td>
<td>.684</td>
<td>.151</td>
<td>.801</td>
<td>.277</td>
<td>.932</td>
<td>.102</td>
<td>.022</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
* . Correlation is significant at the 0.05 level (2-tailed).
Results Summary

The present study was conceived in the hopes that the data would provide insight into the relationships that existed (if any) between graduate students’ tolerance or intolerance of ambiguity and their assumptions about scholarly writing at the master’s degree level, and the relationship that existed between mentors’ uses of formative feedback in their support of their graduate mentees and the types of feedback preferred by the graduate students. Various statistical analyses were conducted and, in the end, several very significant relationships were found to exist among these variables.

The data from the Scale of Tolerance-Intolerance of Ambiguity provided interesting information regarding the differences in scores for the female participants and the male participants. Of greater interest, however, was the overall mean score for the group of participants—57, which was considerably higher, meaning less tolerant of ambiguity, than the mean score for the Budner (1962) study. Examining the data from the ST-IA by the age group of the students revealed that those in the 35-39 year age group were, as a whole, the most tolerant of ambiguity, and the scores of those in the youngest age range, 25-29, indicated that they were the least able to tolerate situations of ambiguity in their lives. By program of enrollment, the mean scores represented a very narrow range (4.5 points), with the students from the Master of Arts in Education reporting to be the most tolerant of ambiguous situations, and those from the Master of Science in Nursing reporting that they were the least tolerant of ambiguity.

For the writing factors, several interesting trends emerged in some of the individual factors by the graduate programs, the gender, and the age range of the participants. Each of these trends will be discussed at greater length in the discussion.
Overall, there were strong correlations between two of the writing factors (Factor Three—Comfort Receiving Feedback and Factor Six—Desire to Improve) and the composite score from the Feedback scale, as well as a very strong correlation between the composite score for the Scale of Intolerance-Tolerance of Ambiguity and the Feedback scale. Each of these will be discussed in further detail in Chapter Five. In general, students reported the least connection to Factor Five—Writing Process, and the strongest connection to items in Factor Six—Desire to Improve.

Programmatically, the students from the Master of Business Administration reported the least connection to more factors than was true for any other program as a whole. Students in the MBA program reported the lowest scores in Factors One, Four, and Five, but scored close to the mean in Factor Six – Desire to Improve. As somewhat of a mirror effect were the students in the Master of Science in Servant Leadership, whose connections to Factors One, Four, and Five were strongest of the four programs. In general, students from the Master of Science in Nursing Program scored at or very close to the mean for all six writing factors. Those students in the Master of Arts in Education Program were, as a group equal to or above the mean for all of the six writing factors.

As reported by the age of the students, the youngest of the age ranges, students who were 25-29, were the least connected of all age groups to Factors Three (Comfort Receiving Feedback) and Five (Writing Process). As a group, these students were at or below the mean for all of the writing factors. Across all factors, the students in the age range from 40-44 reported the strongest connection to the items, indicating confidence in writing mechanics, writing ability, writing process, giving and receiving feedback, and their desire to improve their scholarly writing.
The findings in the area of connection between formative feedback strategies used by faculty mentors and those preferred by student writers were interesting on several levels. In terms of the communication of writing expectations for the scholarly writing process, students’ perceptions of how these expectations were communicated and faculty reports of the ways that expectations were communicated to student writers showed strong agreement. Both reported to communicate expectations of graduate scholarly writing by use of the course syllabi, in-class discussions, rubrics, and comments on written assignments.

Possibly the most interesting and significant finding of the study, however, was the clear disparity that existed between the types of feedback that graduate students preferred as they journeyed through the scholarly writing process, and the types of feedback that were reported to be utilized by their faculty mentors. The graduate students clearly reported that they preferred to receive samples of comparative work as a part of the support that they received in the writing of a piece of scholarly work. Seventy percent of the student respondents reported that this was their top choice in the form of writing support that they received from their faculty mentors. At the opposite end of the scale, and least reported as a preferred form of scholarly writing support, was the practice of seeking support from a writing center, for which only 26% of the student respondents reported a preference.

In contrast, the faculty mentors reported most strongly that they suggested that students seek support from an outside individual, such as the services of a paid editor as a form of support for their mentees who were in the process of producing a piece of scholarly writing. Much less frequently reported by the faculty respondents was the
practice of providing samples of similar written work as a support of students who are engaged in scholarly writing at the master’s degree level. Faculty members from the school of nursing reported slightly higher utilization of providing samples of similar work than faculty members in the remaining three disciplines.

Finally, an unexpected finding from the data was the significantly strong correlation that emerged between the composite score for the ST-IA and the composite score for the Getzlaf et al. (2009) Feedback Survey (p=.02).
CHAPTER FIVE – CONCLUSION AND FUTURE IMPLICATIONS

Discussion of Findings

The early ideas for the present study were largely based on years of experience teaching graduate research. As situations where learning occurs often present many opportunities for ambiguity, I wondered if one’s ability or inability to tolerate such ambiguous situations might impact one’s ability to succeed at the task. An individual’s capacity to tolerate ambiguity, which has similarities to both task complexity and task novelty, is thought to be essential in the sense that “creative problem solving involves an ambiguous period in which the problem is clarified and solutions considered” (Harding & Hale, 2007, p. 2).

A common notion about research is that it is seldom neat; I often remind students in their early days during a research course that research is messy; tolerating the feeling that one is *wallowing in the mess* often leads to ideas that are far more meaningful and creative than one could imagine. I have watched as some of my graduate students in their first research course seem able to wallow and then thrive, while others, regardless of the supports provided, remained stuck in their desire to receive concrete instructions on the what, the how, and the why of developing a research proposal. Cook (2009) expressed her beliefs on the purpose of mess, which was to “facilitate a turn towards new constructions of knowing that lead to transformation in practice (an action turn). Engaging in action research—research that can disturb both individual and communally held notions of knowledge for practice—will be messy” (p. 277). Furthermore, Cook posited that although mess at some point in the research process is widely known and
accepted, “it is usually absent from published accounts . . . and not included in methodological outlines or summative descriptions” (p. 279).

I developed a personal theory that there must be a connection between one’s ability to tolerate ambiguity in general and one’s overall success in graduate research and writing. I designed the present study with the trait of tolerance or intolerance for ambiguity having a critical role. I was certain that there would be something enlightening to come from the results of the study. The mean score for the participants from the present study was 57, indicating that the participants for the present study were significantly less tolerant of the notion of ambiguity than the students from the original Budner (1962) study (x=45). A more recent study (Bors et al., 2010) that utilized 238 Canadian college students produced a mean score of 53.37, closer to the findings for the present study. When one considers the disparate results, a question emerges whether changes in our society over the past 50 years since the original Budner (1962) study have impacted the degree to which students are tolerant or intolerant of ambiguity. Are graduate students in 2013 less able to tolerate the ambiguous situations that are inherent in the research and writing process than were their counterparts in the early 1960s? If so, what does that mean for teachers of graduate students of the present time? My personal belief is that graduate students may well have changed in their abilities to tolerate ambiguity in the 50 years since Budner conducted his seminal work (1962). It would be difficult to determine exactly what has caused this shift, but one hypothesis would link the change in students’ ability to tolerate ambiguity to the changes in our society that are, in part, due to the birth of technology and the accessibility of high speed internet.
Discussion of the relationship between ST-IA and student assumptions. The range of scores for the Scale of Tolerance-Intolerance of Ambiguity for present study, 32-72, was well within the range of scores that have been reported for the Budner scale, 20 to 80. More surprising for me was the tight range of the means across the four programs from which participants for the present study were drawn, 53.08 to 57.61. Regardless of their program of study, all student participants averaged above the norm for the original instrument. Similarly, the mean score for males (59.25) and for females (55.88) roughly paralleled the range of scores for the individual programs. Finally, the mean scores by participants’ age groups followed a similar range, with those in the 30-39 age group averaging 53.45 and those in the 40-44 age range topping the range at 56.00. None of the comparisons of Budner scores by program, age, or gender resulted in findings that were statistically different.

On the contrary, regardless of the method utilized for disaggregating the data, the participants’ scores for the ST-IA for the present study all fell within a narrow range that was moderately above the norm that was reported in the original Budner (1962) study. Three relative outlier’s scores were identified, two at the lower end of the scale (more tolerant of ambiguity) and one at the higher end (less tolerant of ambiguity). The individual whose score was 35, well below the norm for the instrument, and indicative of a person who is very able to tolerate ambiguity, listed her present occupation as a kindergarten teacher. The other at the lower end of the scale with a score of 34 indicated that her present occupation was that of an Emergency Room nurse. At the high end of the scale, one respondent’s score netted a 77, indicating strong intolerance for ambiguity. That individual indicated that his current occupation was that of a high school teacher.
For the two individuals whose scores indicated a strong tolerance for ambiguity, the kindergarten teacher and the emergency room nurse, it would seem that, on many days, their ability to tolerate uncertainty would provide a good fit for the demands of their jobs. As Furnham and Ribchester (1995) reported, these two women might perceive their environments as “desirable, challenging, and interesting” (p. 179).

For the individual whose score put him as the least able to tolerate ambiguity, one might assume that his environment would be a place of rigid order, or, as Hamilton (1957) reported, would have a need for cognitive control of his environment. This teacher might be one whose class operated in a way that expectations were clear and where the consistency of a routine and schedule might be stronger than those in a classroom where the teacher was more tolerant of unexpected events.

According to their scores on the Budner scale, students in the 35-39 age range (mean score of 53.2) were the most tolerant of ambiguity, but as a group were less tolerant of ambiguity overall than the participants in the original Budner (1962) study (mean score of 45). Those students in the youngest age range, 25-29 years were the least tolerant of ambiguity, with a mean score of 60.

As a group, female participants were more tolerant of ambiguity (with a mean score of 55.88) than the male participants (mean score of 59.25). Although the difference was not significant between the two groups, it was of interest to note that the female participants were more able to tolerate ambiguous situations more easily than their male counterparts in the Graduate programs, but still less tolerant than students in Budner’s research (1962). Again, I pose a similar question as was posed earlier, are we, as a society, becoming less able to tolerate situations that require us to be tolerant, and are our
students following a trend that would lead them to be more uncomfortable in situations that required creativity and ‘messiness’ than students half a decade ago?

A surprising, and somewhat disappointing outcome of the study were the lack of correlations that emerged between students’ ability or inability to tolerate ambiguity and the assumptions that they brought to the writing experience as a part of their scholarly writing journey. There are several possible causes for the lack of correlations. One explanation might be that the small sample for the study simply did not provide the depth or range of experiences, feelings, and assumptions that may have come to light in a much larger sample. Another possibility for the lack of correlation between ambiguity tolerance and what graduate students know about themselves as scholarly writers was the homogeneity of the participants. All were enrolled in a master’s degree program at a very small, private, religiously-affiliated institution. Students who self-select to attend such an institution might represent a group of graduate students whose beliefs about the scholarly writing process fit into a narrow band to the point where such correlations might not be found. If graduate students are, in fact, less able to tolerate ambiguity than the participants in Budner’s (1962) study, the inability to draw connections between their tolerance for ambiguity scores and the assumptions that they brought to the scholarly writing process at the graduate level may also have been impacted by that trend.

The final question posed above caused me to pause and wonder about possible differences in scores for the Scale of Tolerance-Intolerance of Ambiguity (Budner, 1962) that have been reported over time. If one could generalize the results of the original Budner study to the population at that time (1962), one would see that people then seemed more able to temporarily suspend perceptions of contradictions or confusion and
proceed without frustration when faced with a situation that required a tolerance of ambiguity. Perhaps the societal changes that have occurred in the past 50 years have contributed to changes in the way that young professional adults respond to ambiguous situations in their lives. We should consider the influence of the use of computers, the use of the World Wide Web, the increase in the use of all technological devises and the decline in face-to-face interactions with regard to the findings of the present study.

The primary question that drove this study sought to determine if there were correlations between students’ abilities or inabilities to tolerate ambiguous situations and the assumptions that they brought to the scholarly writing experiences as master’s degree seeking students. As demonstrated by a germane review of literature, a commonly held belief is that graduate students *should* know how to write. Those of us who have taught graduate students over a number of years know that students at the graduate level have not all perfected writing mechanics. Gazza and Hunker (2012) reported that their collective experiences enabled them to group nursing students’ writing problems into three distinct areas, one of which was writing mechanics. Sallee (2011) and her colleagues wrote about a structured program that they utilized to teach graduate students not only how to research, but how to write effectively. They reported that:

Grammar and punctuation were addressed during short, 15-minute lessons. Various lessons addressed the usage of a particular punctuation mark, such as the semicolon, or a grammatical rule. We used examples from the literature and students’ own writing during class discussion as examples of both good and bad writing. (p. 69)
Cooper and his team of researchers (1998) pointed out that one of the primary tasks in the role of providing feedback is to be certain that the student in the mentee role develops a sense of self-awareness that includes (a) a knowledge of their strengths and weaknesses, (b) the strategies needed to acquire the knowledge for the task of the scholarly writing project, and (c) the skills to effectively monitor and evaluate their writing (p. 274).

In general, student participants for the present study related most strongly to the items in Factor Six—Desire to Improve, and least strongly to Factors Four—Comfort Giving Feedback and Factor Five, Writing Process. This small sampling of graduate students indicated that they were very motivated to improve their scholarly writing skills, but that, in light of how they saw themselves as scholarly writers, they were not comfortable providing feedback to their writing peers. In the words of Mascle (2013) “we can diminish writing apprehension and improve writing confidence by attending to the self-beliefs of our students” (p. 218). Pajares (2003) reported that as students’ writing skills improve, their confidence often does not. This can be, in part, attributed to the fact that a great deal of the feedback that students receive is focused on their mistakes. Pajares added that, although providing feedback for areas of improvement is necessary, it is also the responsibility of the instructor to create an environment for students to develop self-efficacy regarding their writing abilities.

In terms of their program of enrollment, certain trends also emerged. Students from the school of business were less confident of their writing mechanics, the process of writing, and their comfort providing feedback to their peers, and, as opposed to the group as a whole, were less likely to have a desire to improve their scholarly writing skills.
Students from the school of education were slightly more comfortable with their writing abilities (Factor Two) than those from the other schools, were more comfortable than the other three schools receiving feedback (Factor Three), were moderately above other schools in their association with the items of the writing process section (Factor Five), and indicated a desire to improve their scholarly writing skills as part of their graduate work. This may have been the result of their background in the teaching of writing, as is commonly a part of the pre-service training of teachers. The students in the Master of Science in Nursing Program were the most even in their scores across the six writing factors. Their responses for each of the six factors centered closely around the mean scores, suggesting that their abilities, desires to improve, and comfort in both giving and receiving feedback were the most homogenous of all the programs. Finally, students from the servant leadership program, which represented the smallest group of students, were moderately stronger than those from the other three programs in writing mechanics (Factor One), comfort providing feedback to their peers (Factor Four), and the writing process (Factor Five) and were slightly above those from nursing and business, along with the students in the school of education, in their desire to improve the level of their scholarly writing as a part of the graduate experience.

Trends also emerged from the data for the writing factors by the gender of the students. The male respondents were somewhat more likely to see themselves as being comfortable receiving feedback in the scholarly writing process, and were strongly positive in their comfort with the writing process, which included items such as brainstorming, writing multiple drafts and not procrastinating. The female respondents
were more likely to be comfortable with the mechanics of writing and writing ability than their male counterparts who responded to the survey.

Younger students were the least comfortable receiving feedback and reported the weakest connection to the items in Factor Five—Writing Process. Those students in the 40 to 44 year age range far outscored their peers in other age ranges in many of the writing factors including writing mechanics, writing ability, comfort in their ability to both give and receive feedback in the scholarly writing process, the and the writing process. Not unlike the question that was posed about how we as a society approach or withdraw from ambiguity, I wonder about the reason for the strong differences in the ages of the participants in terms of their scholarly writing. I would hypothesize that, as a nation, we may have failed in some way to teach the writing process. In addition, it is possible that the digital natives in the United States have learned using technology, but may have simultaneously lost out on some of the important lessons about how to be an effective writer. The results from this very small sample certainly seem to suggest that the older students fared far better in terms of how they approach the writing process, what they know about the necessary skills to be a successful, such as the mechanics of punctuation and grammar, and in their ability to both give and receive feedback.

The realm of writing pedagogy has undergone multiple waves of change over the past twenty years, fluctuating between process instruction and product instruction, with several other trends having been included since the 1980s. In a recent study, McGrail and Davis (2011) cited Billen (2010), whose research found that contemporary teachers of writing in the elementary years utilize non-process activities that often result in “one-draft products created with limited teacher assistance and no expectation for revising,
editing, or publishing (p. 2). If students have not been taught about the process of writing, it would be difficult to expect that the students from the youngest age group for the present study would be anything other than disconnected to the writing process as one of the assumptions that they brought to the scholarly writing experience at the graduate level.

**Discussion of findings on faculty feedback and student feedback needs:** For the group as a whole, communicating expectation on the course syllabus was the most common means of communicating the expectations for scholarly writing. Strong agreement was noted between what faculty mentors reported in this practice and what students reported having experienced in their respective programs. Faculty members also reported use of in-class discussions to convey the instructor’s expectations of writing skills, and the student respondents reported similar experiences. Having discussions about expectations of scholarly writing is more in line with the Vygotskian perspective (1978), which holds that students, in this case students who are not at a mature level of independently internalizing their scholarly writing skills, benefit from instruction that includes a high level of social interaction with their mentors. Having discussions in class provided for students the kind of social interaction that Vygotsky felt was essential to foster effective learning, as it “positions the student squarely in the midst of the world of things, ideas, history, and people and invites him or her to use writing as a means to participate in that world” (McCallister, 2004, p. 145).

Over seventy-five percent of the students reported that rubrics were used to convey the types of writing skills expectations that the instructor had for the students, and the faculty mentors strongly reported the use of rubrics for this purpose, as well. Rubrics
provide another way to scaffold students’ performance by providing for them, in essence, a contract for what must be present in order to most closely meet the expectations for the writing assignment. In a recent article, Reddy and Andrade (2010) quoted both Stiggins (2001) and McTighe (2001), both somewhat of gurus in the field of formative assessment, that “Rubrics are often used by teachers to grade student work but many authors argue that they can serve another, more important, role as well. When used by students as part of a formative assessment of their works in progress, rubrics can teach as well as evaluate (p. 437). Reddy and Andrade continued by stating that the use of rubrics is another strong asset; that rubrics have the potential to help students understand the expectations and standards of quality for a particular assignment.

The results were similar across the four graduate programs, with the use of the course syllabus and the rubric being most frequently used to convey expectations about scholarly writing. Two exceptions were from the students who represented the Master of Business Administration, who more frequently noted the use of in-class discussions and comments on returned assignments over the use of rubrics, and the students in the Master of Science in Servant Leadership, who rated in-class discussions over the use of the course syllabus for conveying the expectations for scholarly writing in a given course.

As a group, the graduate students reported that the most highly regarded source of support came from having the instructor for the course provide writing samples, followed by a discussion of the sample with the student. This approach follows the theory of assisted learning, which has its roots in constructivist teaching, and which makes use support from the more developed other, the mentor, while the student develops the skills that support scholarly writing (Mullen, 2006). Piercy and his associates (1996) wrote that
“Graduate students learn best by being supported, engaged, and challenged. They also learn best when they have good models, opportunities to practice and receive feedback” (p. 164). The great disconnect takes form here in that the faculty respondents rarely reported providing samples as a beneficial practice in providing support to student writers at the master’s degree level. Faculty respondents were much more likely to suggest that students themselves seek help (paid editor, or institutional writing center) or to independently form their own writing support groups, which has strong history in the literature (Cuthbert & Spark, 2008; Maher, Seaton, McMullen, Fitzgerald, Otsuji, & Lee, 2008; Plakhotnik & Rocco, 2012; Rose & Clafferty, 2001;). This seems to be the most critical issue that was uncovered as a result of the study – that is, how do we as instructors know what is best practice in terms of our students’ needs? I am led to wonder if there are significant changes that I might make to courses that would bring the two sides closer together in terms of what students report that they prefer as support in the writing process and what we as instructors of graduate writing provide for them.

I was also struck by a sense of hands-off behavior on the parts of the faculty mentor when they reported just how they would offer support to their mentees in the scholarly writing process. The top four strategies reported were: (a) suggesting outside support, such as the services of a paid editor; (b) referring students to the campus writing center; (c) suggesting that students from writing support groups; and (d) referring students to resources on the course management site. These four strategies all display a distant sense of support. It is not until we reach the fifth most often utilized form of support that the faculty mentors reported, that of answering students’ questions by telephone, that the faculty mentors reported a sense of direct faculty involvement in the
process of support. Farther down the list were individual conferences in class, or scheduling a meeting outside of class time, were the strategies that suggested a more hands-on approach to providing writing support.

Finally, the role of peer feedback has been seen as having the potential to improve student learning, particularly in the context of formative assessment. The work of Topping and associates (2000), in particular, has added to the pedagogic research findings by strongly suggesting that students’ engagement with peer assessment can improve student learning significantly, both from the role of the feedback provider and that of the feedback recipient. The faculty mentors suggested writing support groups as a means of providing writing support and nearly half of the mentees (44%) reported that seeking advice from a peer was a valued form of writing support.

Limitations

As with most research studies, this study was subject to limitations. The participants for the study were chosen non-randomly, part of a purposeful sample available to the researcher at a small private institution offering a limited number of master’s degrees. The natural validity threats of purposeful sampling and selection bias along with the limited population of this study suggest that there is a limited likelihood that co-relational results achieved would be generalizable beyond its limited context. As a result, the generalizability of the findings was reduced significantly. Because purposeful sampling was used, the researcher cannot say with confidence that the sample was representative of the population of graduate students (Creswell, 2002).

In addition, quantitative data in the form of survey responses included self-reports of writing abilities. The validity of self-reports may influence the overall validity of the
study. The data also represented a kind of snapshot into the thinking of graduate students at a given point in their study, which may have influenced the answers provided on any of the data tools. For example, if a given student from the school of education completed the survey in January of 2012, which coincided with that student’s last semester as a graduate student, his or her response may have been quite different than a student from the school of nursing, who also completed the survey in January of 2012, but who was in his or her first semester of the Master of Science in Nursing Program. Comparing across the disciplines did not factor in where exactly each respondent was in his or her graduate program, which may have influenced how each of the respondents provided answers.

After much consideration, the data tools that were utilized in the study were chosen for appropriateness for the study. However, one can never be absolutely certain that the tool performs just as expected. After choosing and using Budner (1962) Scale of Tolerance-Intolerance of Ambiguity, I became aware of several newer, possibly more reliable scales for measuring the trait of ambiguity in the student participants. Had I chosen Norton’s (1975) MAT-50, perhaps the data would have differed, with different interpretations of analyses.

A similar limitation occurred with the use of the Getzlaf et al. (2009) feedback survey. I made assumptions about the way that the survey had been used in the 2009 study that included assuming that the validity and reliability of the questions had been tested. There may have been a tool that was tested and found to be a superior one to the Getzlaf (2009) tool to collect data in the area of feedback for professional writing at the graduate level. Each of the choices that were made in the planning and execution of the present study was made in good faith that it was the best choices at the time, and that it
would allow me to conduct the best possible investigation into the factors that contribute to graduate scholarly writing at the master’s degree level. This study was undertaken to obtain a deeper understanding of the relationships that exist among several factors in relation to the success of students at the master’s degree level with the process of scholarly writing. The findings of this study resulted in new information and provided avenues for future studies in this area of research.

**Recommendations**

The purpose of this study was to add to the body of knowledge the strategies that contribute to successful scholarly writing at the graduate level. One of the areas from the related literature in the field spoke to the importance of utilizing the cognitive apprenticeship model, and presented its use as a five-phase model. Le Grand-Brand et al. (1993) presented the necessary phases as: (a) modeling; (b) approximating; (c) scaffolding; (d) facing—where the scaffolding and prompts gradually decrease as the learners’ skills increase; and (e) self-directed learning – where learners practice and adapt from their learning and receive assistance only when requested. This model is yet another reminder for me to return to what I know to be best for my students and begin to collaborate with others who are interested in increasing the success of graduate writers.

The five-phase model bears striking resemblance to a contemporary strategy, Fisher and Frey’s (2008) *gradual release of responsibility*. These authors describe gradual release of responsibility as “an intersection of several theories” (p. 2) including the work of Piaget (1952) on cognitive structures, Vygotsky (1978) on the Zone of Proximal Development, Bandura (1965) on motivation and self-efficacy, and Wood, Bruner, and Ross (1976) on the scaffolded instruction. Regardless of which perspective
one chooses, this model for scaffolding student support should be a best practice for all who teach writing to adult learners, regardless of the level from beginning writing to advanced writing for scholarly purposes.

**Future Research**

This research effort developed into a wealth of interesting issues and topics that have merit for future studies. Several studies are brewing in my head, with several more still being in that joyous *nagging* stage. The following studies have the potential to add to the literature on the use of feedback in the scholarly writing process:

- A study that will investigate the use of revision strategies as a part of the general writing curriculum. Zimmerman and Kitsantas (2002) found that students who were provided with a model for making and correcting revision errors and the use of revision strategies reported higher self-efficacy and higher performance on a written revision task than either the students who received no model or those who were provided a model that flawlessly implemented the revision strategies. This suggests that providing students with strategies for utilizing feedback is necessary in order to provide students with the skills for utilizing instructor feedback successfully.

- A study that will investigate the use of peer review in a Graduate research course. The use of reciprocal feedback was identified as a best practice for teaching scholarly writing, and that the use increases students’ understanding of the process of scholarly writing much sooner in the program. (Bonnel & Boehm 2011).
• A study that will further make use of the Professional Writing Survey, the researcher created tool that was at the heart of the design of the study from the perspective of drawing upon what graduate student writers know about themselves as scholarly writers. I was very pleasantly surprised to find that validity of the tool was strong, which has encouraged me to think about a much larger sample in a study that continues to look at what graduate students at the master’s degree level know about themselves as scholarly writers.

**Lessons Learned**

Having arrived at the end of the journey, my hindsight is quite clear. Years ago, possibly long before it was considered to be a best practice in education, I required that my students reflect upon their journeys as they progressed through a master of arts in education. Over the years, I have gotten away from including the need for reflection into my syllabi, my lectures, and my conversations with graduate students. I am now certain that I need to return to the infusion of reflection in my practice, and insist that the graduate students whose work I support engage in reflective practice, as well. One belief that was presented in the literature (Duijnhouwer et al., 2012) reminded me that first step in the feedback process is the need for reflection. The student, having received feedback on a piece of writing, must (a) accept that the text is not yet what it should be; (b) seek solutions for rectifying the differences between the present writing and the expected writing; and (c) make a plan for how to approach the necessary revisions (p. 171). Keeping these three distinct parts of the reflective process in the forefront when teaching graduate students about the benefits of utilizing the feedback that they receive has the
potential to change the ways in which students perceive, utilize, and prefer writing feedback.

Another practice that I have lost along the way is that of utilizing reciprocal feedback in my teaching of graduate research courses. I have been reminded through the process of the present study of the importance of this critical piece as a teaching and a learning tool for my students. I know again why the practice of giving and receiving feedback is so critical in the process of learning to be a successful scholarly writer: (a) the submitting author must critically reflect on his or her piece of writing prior to submission; (b) peers provide feedback knowing that they will be required to explain their feedback; and (c) the group members must invest considerable time and effort in reviewing others’ work, knowing that their work would receive the same time and effort (Aitchison, 2009). It is my belief that the utilizing peer feedback in my teaching will provide the tools that students need to be successful as they work to complete the piece of scholarly writing that is required for their degree.

Several factors that are embedded in the use of peer feedback provide necessary skills for writing success. These include (a) the use of reflection as one provides feedback to a peer—this type of reflection is needed to reinforce all of the ‘rules’ that students must follow when writing at the graduate level; (b) the need for students to accept that feedback, regardless who provides it, is intended as a gift, and requires the recipient to reflect on the content of the feedback, how the gap between what is written and what is expected can be remedied, and how to best incorporate the information provided in the feedback into the writing schema as a means of improvement; and (c) the knowledge that the writing process is seldom linear; writing at the graduate level is messy and requires
the writer to engage in the kind of forward and backward movement that one might remember from the game of hopscotch—seldom does one go from start to finish in a smooth forward line.

I must also encourage my peers to utilize peer-review as a part of their teaching of the scholarly writing process. Topping et al. (2000) believed that reciprocal peer assessment has the potential to impact the affective development of students by creating a sense of ownership and responsibility, improving self-confidence, and developing a sense of bonding and empathy with other students. Vygotsky believed that social interactions enable humans to develop advanced thoughts. Topping et al (2000) found that the use of reciprocal peer assessment helped to create a sense of ownership and responsibility for one’s writing, while improving self-confidence, and developing a sense of bonding and empathy with other students.

Finally, I learned from Diezmann (2005) of a three pronged practice of “quick read”, “zooming in”, and “zooming out”, which she credits to the work of Watson and Wilcox (2000). The quick read allowed her to identify the student as a type of writer by looking at his or her predominate writing style; the three types included: (a) Mechanical Writing Errors, including spelling, punctuation, grammar, language, and authorship; (b) Errors in the Microstructure of Writing, which included flow, connectives, placement of phrases, and convoluted sentences; and (c) Errors in the Macrostructure of Writing, including quality and clarity of purpose, consistency in chapters, relationship among components and general presentation of the dissertation, which she credited to Cooper et al. (1998). As I continue to teach and support writers at the graduate level, this simple practice has the potential to allow me to get to know my students as writers sooner in the
course, and to develop strategies to meet their individual needs in a more timely and appropriate fashion.

The process of conducting this study and writing about it has reminded me that much of what students need to know about the scholarly writing process must be taught to them. Students must hear in the feedback and support from their faculty mentors that their writing and their personas as scholarly writers is good, in spite of its flaws. Graduate scholarly writers deserve from their mentors the kind of support and feedback that provides knowledge to build their performance as a scholarly writer (Hall et al., 2011). Cameron (2009)and her research partners reminded me that novice scholarly writers do not understand that “the recursive nature of academic writing entails initial messiness and failure because they see only the finished product of other academics’ work and not the process by which that work came to be” (p. 281). Students who are more effective in their self-regulation are seen as better able to make use of feedback provided by teachers, mentors, or peers, and to use the feedback in progressing towards their goals. Zimmerman and Kitsantas (2002) found that self-regulated learners derive more benefit from the feedback of others, both peers and mentors. As their graduate mentor, I must do everything possible to assist my graduate students in the development of their self-regulation skills if they are to get the most out of the feedback that they receive as they journey through the scholarly writing process.

Conclusions

Many of the realizations that I have had in the process of researching this topic were not surprising to me. My instincts told me that students want to succeed as they undertake the writing of a thesis (born out strongly by the results of the study), and that
teachers also want to succeed in their ability to reach and teach all students effectively in this endeavor. My experiences, however, and those of many of my colleagues, represented a reality in which graduate students struggled in this process of scholarly writing, and that instructors struggled to effectively teach students how to be successful. Cooper and his research partners (1998) described the role of a thesis supervisor as one that includes being a project manager, a writing mentor, a wordsmith and editor, and, in some cases a counselor. I have played all of these roles over the past fifteen years, and I have experienced a moderate degree of success in my support of hundreds of graduate students over the past fifteen years.

What this experience has taught me, however, is that each day is a new day, and that each student brings a new set of strengths and opportunities for improvement. As an educator, it is my responsibility to develop the kinds of relationship with my students that will allow me to know things about them that are necessary in order for me to provide each of them the individualized support needed during the process of conducting graduate research and writing a thesis.

Having examined the different facets of scholarly writing from the perspectives of students across four programs, and listened to the words of their instructors as they shared what they considered to be important in the process of supporting graduate writers has been an experience that will allow me to think differently about my teaching and how my students do or do not respond to it. For me, the end is the beginning, as I will continue to explore the joyous naggings that keep me awake at night; I will continue to conduct research with the hopes of knowing more about the best practices for teaching and supporting graduate writers as I continue on this journey that I call life.
Epilogue

At the end of this process, I can now look back, reflect on the past, examine my present by studying the teacher and the person I am at this very moment, and look to the future, reflecting on the person and the teacher I strive to become. As a result of the work that has resulted in this dissertation, I have come to know much about myself and who I strive to become as I continue in my career as an educator. I know that I have lived in the mission of Benedictine University’s School of Education, that “educators are effective practitioners, committed to scholarship, lifelong inquiry, leadership and social responsibility” (Benedictine University, 2013). The work that is represented by this piece of writing has increased my understanding of my discipline, and has given me additional pedagogical principles on which I will continue to base my craft. The literature that provided the foundation for the study has provided innovative strategies that will enhance my teaching and my students’ learning. The process of conducting research in my field has enabled me to reflect deeply on the convictions that I have held in the past, and to critically examine which continue to serve me well, and which should be left as a result of my growth.

The leadership abilities that I have gained as a result of my doctoral studies have allowed me to affect change and to improve my educational practice as a result of the theory and ethical principles that the course work and my experiences have afforded me. I now have a responsibility to go forward and “promote effective educational initiatives that enrich learning experiences” (Benedictine University, 2013). Based on the findings of the present study, and my learning from it, I am more prepared to continue all of the inclusive practices that are so important to me in my teaching, by focusing on creating
fair and equitable environments for my teaching and to accommodate for each of my students according to his or her individual differences.

The work that I have done over the past four years has been truly transformational for me. The theory of transformative learning states that when the learners’ assumptions are shaken and they are forced to challenge those assumptions, to understand from where they originate, and to break out of those previous frames, an important and often transformative period of growth occurs (Mezirow, 2000). Many of my previous assumptions about my teaching, about my students and how they learn best, and about myself, in general, have been shaken by the process of developing and conducting this study, and, as a result, I am a different person today than I was when this journey began.
REFERENCES


doi:10.1080/09650790902914241

Cooper, T.J., Baturo, A.R., & Harris, L. (1998). Scholarly writing in mathematics and


APPENDICES
APPENDIX A

Professional Writing Survey

Please use the following scale to assess your agreement with the following prompts:

1                         2                         3                        4                         5
This does not describe me at all. . . . . . . . . . . . . . . . . . This describes me very well.

*Note: “Scholarly Writing” or “Professional writing” refers to writings that one would submit for a course assignment or that would be required of one in his or her professional setting.

When I think about ‘scholarly writing’ . . .

1. I am confident in my abilities.

1                         2                         3                        4                         5

2. I am comfortable sharing my writing with others.

1                         2                         3                        4                         5

3. I am comfortable having others critique my writing and receiving their feedback.

1                         2                         3                        4                         5

4. I am comfortable having others critique my writing and receiving their written feedback.

1                         2                         3                        4                         5

5. My ideas flow, I rarely get stuck.

1                         2                         3                        4                         5

6. I enjoy the process of creating a written product.
7. I always brainstorm before I begin to write.

8. I am comfortable critiquing the writing of others and providing verbal feedback.

9. I am comfortable critiquing the writing of others and providing written feedback.

10. I always do more than one draft.

11. I seek out the advice of others correct.

12. I have strong writing vocabulary.

13. My grammar and or usage is nearly always correct.

14. I know how to correctly use all punctuation marks.
15. I have strong editing skills.

1 2 3 4 5

16. My writing is engaging.

1 2 3 4 5

17. I do not procrastinate.

1 2 3 4 5

18. I am confident in my ability to write in APA style.

1 2 3 4 5

19. I welcome strategies to improve my writing.

1 2 3 4 5

20. I am comfortable writing research papers.

1 2 3 4 5

21. I understand how to cite the works of others when writing a research paper.

1 2 3 4 5

22. I understand when to cite the works of others when writing a research paper.

1 2 3 4 5
APPENDIX B

Tolerance for Ambiguity Scale

Please read each of the following statements carefully. Then rate each of them in terms of the extent to which you either agree or disagree with the statement using the following scale:

Place the number that best describes your degree of agreement or disagreement in the blank to the left of each statement.

Completely Disagree  Neither Agree nor Disagree  Completely Agree

1  2  3  4  5  6  7

1. ______An expert who doesn’t come up with a definite answer probably doesn’t know too much.

2. ______I would like to live in a foreign country for a while.

3. ______The sooner we all acquire similar values and ideals the better.

4. ______A good teacher is one who makes you wonder about your way of looking at things.

5. ______I like parties where I know most of the people more than ones where all or most of the people are complete strangers.

6. ______Teachers or supervisors who hand out vague assignments give a chance for one to show initiative and originality.

7. ______A person who leads an even, regular life, in which few surprises or unexpected happenings arise, really has a lot to be grateful for.

8. ______Many of our most important decisions are based upon insufficient information.

9. ______There is really no such thing as a problem that can’t be solved.

10. ______People who fit their lives to a schedule probably miss most of
the joy of living.

11. ________A good job is one where what is to be done and how it is to be done are always clear.

12. ________It is more fun to tackle a complicated problem than to solve a simple one.

13. ________In the long run it is possible to get more done by tackling small, simple problems rather than large and complicated ones.

14. ________Often the most interesting and stimulating people are those who don’t mind being different and original.

15. ________What we are used to is always preferable to what is unfamiliar.

16. ________People who insist on a yes/no answer just don’t know how complicated things really are.

APPENDIX C
Feedback Survey – Student Version

Please use the following scale to assess your agreement with the following prompts:

1=Strongly Agree
2=Agree
3=Neither Agree nor Disagree
4=Disagree
5=Strongly Disagree.

1. Feedback from an instructor should motivate me to continue in the course.
   1  2  3  4  5

2. Feedback from an instructor should not encourage me to interact with my instructor.
   1  2  3  4  5

3. Feedback from an instructor should stimulate me to reflect on what I have learned.
   1  2  3  4  5

4. Feedback from an instructor should not be provided frequently throughout the course.
   1  2  3  4  5

5. Feedback from an instructor should not challenge me to think differently about the topic.
   1  2  3  4  5

6. Feedback from an instructor should not help me evaluate my progress in the course.
   1  2  3  4  5

7. Feedback from an instructor should promote my active involvement in learning.
   1  2  3  4  5

8. Feedback from an instructor should help me build new knowledge about the topic.
   1  2  3  4  5

9. Feedback from an instructor should not support my self-directed learning.
   1  2  3  4  5

10. Feedback from an instructor should stimulate further learning about the topic.
    1  2  3  4  5
11. Feedback from an instructor should not be provided in a timely manner.
   1  2  3  4  5

12. Feedback from an instructor should stimulate me to reflect on what I still need to learn.
   1  2  3  4  5

13. Feedback from an instructor should not be provided in an encouraging manner.
   1  2  3  4  5

14. Feedback from an instructor should help me identify my strengths.
   1  2  3  4  5

15. Feedback from an instructor should help me identify areas of needed improvement.
   1  2  3  4  5

16. Feedback from an instructor should not increase my level of knowledge about the topic.
   1  2  3  4  5

17. Feedback from an instructor should provide direction of the learning process.
   1  2  3  4  5

18. Feedback from an instructor should build my confidence.
   1  2  3  4  5

19. Feedback from an instructor should not be individualized to my performance.
   1  2  3  4  5

20. What forms of support do you generally find most helpful as you complete writing assignments. Please check all that apply:

   _____ Scheduling an in-person meeting with your instructor
   _____ Asking your instructor to read a draft of your work
   _____ Seeking advice from a colleague
   _____ Having your instructor provide samples of similar writing and then discussing the samples
   _____ Reviewing resources available on the course management software program
   _____ Emailing your question or questions to your instructor
   _____ Seeking advice from peers in your degree program
   _____ Seeking advice from a family member or friend outside of school or work
   _____ Taking time on your own to find examples of similar writing to review
   _____ Seeking assistance from the institution writing center
21. How do your instructors communicate their expectations of graduate student writing skills for your degree program? Please check all that apply:

- Descriptions on the course syllabus
- One-to-one discussions with your instructor during office hours
- Comments on returned assignments
- In-class discussions
- Samples of the instructor’s writing
- Rubrics that outline the assignment criteria
- Sample student work
- Email messages

22. What are the expectations of your instructors of your writing skills as a graduate student (open ended question)?

My gender is
My age is
My undergraduate degree was
My graduate program is
My current occupation is

APPENDIX D

Feedback Survey – Instructor Version

Completely Disagree=1    Disagree=2    Neutral=3    Agree=4    Completely Agree=5

Please indicate how much you agree or disagree with each of these statements about instructor feedback.

1. Feedback from an instructor should motivate a student to continue in the course.
   1 2 3 4 5

2. Feedback from an instructor should not encourage a student to interact with the instructor.
   1 2 3 4 5

3. Feedback from an instructor should stimulate a student to reflect on what he or she has learned.
   1 2 3 4 5

4. Feedback from an instructor should not be provided frequently throughout the course.
   1 2 3 4 5

5. Feedback from an instructor should not challenge a student to think differently about the topic.
   1 2 3 4 5

6. Feedback from an instructor should not help a student evaluate his or her progress in the course.
   1 2 3 4 5

7. Feedback from an instructor should promote a student’s active involvement in learning.
   1 2 3 4 5
8. Feedback from an instructor should help a student build new knowledge about the topic.
   1  2  3  4  5

9. Feedback from an instructor should not support a student’s self-directed learning.
   1  2  3  4  5

10. Feedback from an instructor should stimulate further learning about the topic.
    1  2  3  4  5

11. Feedback from an instructor should not be provided in a timely manner.
    1  2  3  4  5

12. Feedback from an instructor should stimulate a student to reflect on what he or she still needs to learn.
    1  2  3  4  5

13. Feedback from an instructor should not be provided in an encouraging manner.
    1  2  3  4  5

14. Feedback from an instructor should help a student identify his or her strengths.
    1  2  3  4  5

15. Feedback from an instructor should help a student identify areas of needed improvement.
    1  2  3  4  5

16. Feedback from an instructor should not increase a student’s level of knowledge about the topic.
    1  2  3  4  5
17. Feedback from an instructor should provide direction of the learning process.

   1  2  3  4  5

18. Feedback from an instructor should build a student’s confidence.

   1  2  3  4  5

19. Feedback from an instructor should not be individualized to a student’s performance.

   1  2  3  4  5

20. Feedback from an instructor should include both positive comments and comments about areas for improvement.

   1  2  3  4  5

21. What forms of support do you generally provide to graduate students regarding their professional writing? Please rank the following options using (1) as most frequently used through (11) least frequently or never used.

   _____Scheduling an individual meeting with the student outside of class time
   _____Utilizing in-class conferencing with individual students
   _____Utilizing class time for all-class writing instruction
   _____Offering to read a first draft of the assignment
   _____Referring the student to the writing center
   _____Providing samples of similar writing and then discussing the samples with the student
   _____Reviewing the resources available on the course management software program
   _____Answering a student’s questions in a telephone conversation
   _____Answering a student’s questions via email communication
Suggesting that students form writing groups to support each other in the writing process

Suggesting that a student utilize outside resources (such as a paid editor)

My Graduate program is:

Thank you for your interest in participating in this study as a part of my doctoral research. My study will explore the factors that contribute to successful scholarly writing in Graduate programs from the perspective of both the mentor (faculty advisor) and the mentee (Graduate student). I will investigate the teaching and feedback techniques that faculty use in Graduate programs to enhance the scholarly writing skills of Graduate students. In addition, I will look at the relationships that develop between advisors and their Graduate students as they are involved in the process of teaching and learning scholarly writing.

Participation in this study will involve the online completion of several surveys via email in the summer of 2012. These questions will be designed to collect information about your experiences as a Graduate student as they relate to scholarly writing as a part of the Graduate research process.

If at any time you have questions regarding the study or your participation in it, please contact me. If you wish at any time to withdraw from the study, you may do so without negative consequences.

By your signature below, you certify that you have (a) received a copy of this letter of informed consent, and (b) that you have received a verbal explanation of the nature and purpose of the study, its potential benefits, your role as a participation in the study, and any associated risks associated with participating in the study. Finally, your signature indicates that all of your questions have been answered and that you consent to participate in the above study.

If at any time you have questions, please feel free to contact the Chair of the Institutional Review Board at Benedictine University, Alandra Weller-Clarke, at aclarke@ben.edu. You may also contact the primary investigator, Susan Hughes at srhughes@viterbo.edu.
APENDIX F

Instructor Informed Consent

Thank you for your interest in participating in this study as a part of my doctoral research. My study will explore the factors that contribute to successful scholarly writing in Graduate programs from the perspective of both the mentor (faculty advisor) and the mentee (Graduate student). I will investigate the teaching and feedback techniques that faculty use in Graduate programs to enhance the scholarly writing skills of Graduate students. In addition, I will look at the relationships that develop between advisors and their Graduate students as they are involved in the process of teaching and learning scholarly writing.

Participation in this study will involve the online completion of a survey via email in the summer of 2012 with questions that are designed to collect information about your teaching experiences and practices as they relate to scholarly writing as a part of the Graduate research process.

If at any time you have questions regarding the study or your participation in it, please contact me. If you wish at any time to withdraw from the study, you may do so without negative consequences.

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Susan Hughes currently teaches in the Master of Arts in Education program at Viterbo University in Wisconsin. Her undergraduate degree is from St. Mary-of-the-Woods College in Indiana, and her master’s degree is from the University of Cincinnati. She spent over thirty years teaching in the K-12 education system as a special education teacher. Her research interests include the use of action research for continuous improvement, using lean strategies in the classroom, generative leadership, and how graduate students approach the task of producing a scholarly work.