

Producing Strong and Effective Writers Using the Peer Feedback Process

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Abstract

The peer feedback process is an effective and engaging literacy activity used to support student writers learning from each other. This study used qualitative research methods to investigate the potential impact of the peer feedback process on students providing the feedback. The study focused on peer feedback's impact on reviewers' development of stronger writing skills. Research questions included: How does peer reviewers' training on the peer review process for writing impact their writing skills? How does such training impact their ability to be effective peer reviewers? How does the experience as peer reviewers impact reviewers' own writing skills? Communicating with the research participants over a 3-month period provided opportunities for them to reflect upon their experience as peer reviewers and offered insights about the impacts it had on their development as writers. Data collection methods included a student questionnaire, a focus group, and an in-depth interview, all of which encouraged students to offer detailed thoughts and ideas. Additionally, the researcher kept a journal of thoughts, questions, and ideas that contributed to the understanding of the student data. Data analysis revealed that training provided reviewers with foundational skills and knowledge that helped prepare them to be more effective reviewers and was useful when applied to their own writing process. Findings also revealed the experience of reviewing helped reviewers develop critical thinking, analysis, and synthesizing skills that assisted their own development as writers. Over time, student reviewers began to internalize the lessons they were teaching to their peers and apply them to their own writing, acting as an expert and providing support to their own process. Implications for practice are also discussed.

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CHAPTER ONE: INTRODUCTION TO THE PROBLEM

This study examined the issue of students' writing skills development at the postsecondary level of education and sought an understanding of how the peer feedback process can be used as a tool to facilitate stronger writing skills. The peer feedback process is commonly used as a way of providing support to students who are writing a paper (Li, Liu, & Steckelberg, 2010; Liu & Carless, 2006; Nicol, Thomson, & Breslin, 2014)). In the peer feedback process, a student submits his or her paper to a peer who reviews it and provides feedback that is intended to improve the writing. It is a low-cost method of service delivery that capitalizes on the available resource of students at educational institutions.

Studying the benefits of the peer feedback process, however, may not be straightforward. In fact, understanding the benefits the peer feedback process offers is complicated as there are several elements that could be appraised for their value. These elements include questions about how reliable and accurate the feedback is when it is offered by a peer. Some might wonder how qualified a peer is to evaluate the work of another student. The quality and substance of training that is given to the peers who are reviewing papers to support their role in providing feedback may also be challenged. Questions could be asked about how important it is for the peer to have content knowledge of the topic of a paper he is reading to be able to offer credible feedback on it.

A generic qualitative research approach will be used when gathering and analyzing the data for this study. As defined by Bellamy, Ostini, Martini, and Kairuz (2015), generic qualitative research takes a broad approach to research and incorporates

several characteristics of qualitative methodologies into one without differentiating the specific methodology. These qualities include “the goal of eliciting understanding and meaning and findings that are richly descriptive; using the researcher as the primary instrument of data collection and analysis; and triangulating findings from fieldwork” (Bellamy et al., 2015, p. 672). In a generic qualitative study, it is important to understand that participants’ account of their perceptions and feelings are given greater weight than the intended meanings that could be interpreted from these representations.

This study provided participants with opportunities to reflect upon their experiences as a peer reviewer and on the training, they received to be able to perform successfully in this role. Participants were also asked to reflect upon the relationship between the training they received, their performance as a reviewer, and their own development of writing skills. The reports participants gave provided rich data that led to a thorough consideration of the research questions and a deeper understanding of the impacts the peer feedback process had on students’ development as writers.

Background of the Problem

Educators and researchers often talk about the issue of students enrolled in postsecondary education courses having inadequate writing skills (Chittum & Bryant, 2014; Reynolds & Thompson, 2011). While I was a staff member in a university student services office that held responsibility for providing academic skills support services to students, I observed a high need for writing skills support. As I attended conferences and meetings with colleagues, the demand for writing skills support was a popular topic with questions being asked of why students appeared to arrive at university without adequate writing skills. Elementary and secondary school teachers are expected to follow the

curriculum guidelines established by the Ontario Ministry of Education because they are designed to develop adequate communication skills and prepare students for further education and work requirements. Yet somehow many students who arrive at postsecondary classrooms demonstrate poor writing skills, as evidenced by the number of appointments being booked by students at writing centers and other writing support services and the requests of professors to offer writing skills workshops and support services. Lea and Street (1998) commented on a common opinion held by academic staff that student literacy standards were not meeting the normal levels and “many academic staff claim that students can no longer write” (p. 157). Chittum and Bryant (2014) referenced the agreement of several other authors as they stated that “although expectations for graduate students’ writing abilities are high, faculty and researchers across disciplines have agreed that graduate students’ actual writing skills are subpar” (p. 473).

To address this issue, strategies have been developed that are intended to help students develop their writing skills and produce higher-quality written work (Ashbaugh, Johnstone, & Warfield, 2002; Cho & Schunn, 2007; Mak & Coniam, 2008). As an example, Cho and Shunn (2007) developed a web-based application called SWORD to assist students who were participating in a peer review process designed to improve their writing skills. SWORD matched students as writers and reviewers and the overall findings showed students writing skills improved because they received feedback from multiple reviewers. Situated in Hong Kong, Mak and Coniam (2008) implemented the use of wikis to study collaborative writing amongst peers with peers providing feedback and suggested revisions to each other’s written descriptions. This study found there was an

increase in the quantity of descriptive writing the students completed and enhanced quality of writing with revisions including reorganization and suggested enhancements to the content. These studies offer two examples of research aimed at developing strategies for teaching writing in a classroom.

Some postsecondary institutions create service organizations, such as writing centers or student success centers, which are housed outside of classrooms. These service organizations offer courses, workshops, and other forms of instruction and coaching on how to become a more effective writer. Services include self-instruction videos, writing groups and clinics, seminars, and personal consultations with trained students or staff. Activities are offered that give students opportunities to receive one-on-one instruction or to be in a group setting to work through various exercises designed to teach them about the elements of the writing process and to practice good writing skills.

Despite how common writing centers are at postsecondary institutions and the acceptance that this model of writing support is successful, some educators argue that separating writing skills development from classroom instruction makes it less effective because the connections between academic content and the meaning of the writing is lost or not made at all (Wingate, 2006). Therefore, other models and strategies used for writing support are offered in the classroom and are led by academic instructors. For example, in writing courses, the lessons on how to be an effective writer are directly linked to the course content and curricular lessons. Approaches to learning the writing process are integrated into the pedagogy of course content and instruction is solely and specifically on the development of writing skills. Another example of a classroom activity that is often reported as a successful support strategy for writing skills is the peer

feedback process, also referred to as the peer review process. Students are put into the roles of reviewer and reviewee and are given opportunities to practice reading each other's work and providing feedback to each other (Althausen & Darnall, 2001; Baker, 2016; Berg, 1999). This study was founded on the idea that using the peer review process as a classroom activity is a means of teaching students better writing skills. By focusing this idea on the student providing the feedback, the project set out to explore what the direct impact was of participating in the review process as a reviewer. The primary goal was to understand how the review process could be used to achieve the goal of developing stronger writing skills of students who were part of larger classes and had less exposure to writing assignments.

The project began by examining the literature that promoted the idea that the peer feedback process offers benefits to both the student receiving the feedback and the student providing the feedback and helps develop the writing skills of both groups (Lundstrom & Baker, 2009; Rieber, 2006). Within this body of literature there were researchers whose studies focused on the idea that the benefits to the student reviewer are greater than the benefits to students receiving the feedback (Cho & MacArthur, 2011; Lundstrom & Baker, 2009). Student reviewers often receive training on the peer review process. The training they receive, combined with the opportunity to put into practice what they learn in the training, has a significant impact on the development of the reviewer's writing skills (Min, 2005). Peer review training helps student reviewers develop the cognitive skills necessary to produce high-quality feedback as reviewers and superior academic compositions as writers (Philppakos, 2017). Training can also teach

reviewers a variety of strategies and approaches for working with peers when analyzing and providing feedback on their papers.

My interest was to better understand the impact of training on the reviewers' ability to apply the knowledge they gained as a reviewer to the assessment of their own writing to improve it. I was also interested in examining how the experience of providing feedback to peers impacted their ability to analyze and improve their own writing projects. The value of this project lies in its potential to influence more academic instructors into using the peer feedback process as a classroom activity in postsecondary education courses. Instructors who appreciate the importance of the writing process and want to offer more opportunities for students to practise and learn how to improve their writing skills, it can be challenging when they do not have additional support or resources to structure their course with a greater number of writing activities. By demonstrating the peer feedback process aids in the development of enhanced writing skills, more instructors might consider implementing a process in their classroom. This study takes a particular interest in the role training plays in the peer feedback process. The next section provides a summary of the training the research participants received.

Training the Writing Assistants

The writing assistants being discussed in this section are the students who volunteered in the writing centre and later agreed to be the research participants in this project. In September 2016, after the writing assistants were selected, their supervisor provided them with training on their role and responsibilities as a writing assistant. The training program has been developed and used for the past 4 years with minor changes

made each year. The assistants also received a training manual that supported their initial learning and provided a reference for ongoing support.

The training program began with an introductory icebreaker activity to help the students learn each other's names and become more comfortable with each other as colleagues. The supervisor then distributed a manual to the students. The manual was a guide that outlined the program and role expectations, offered specific information about the duties of writing assistants, and described the skills reviewers were required to develop so that they were effective in their roles. The training program clearly communicated that writing assistants were not proofreaders because that could be a breach of academic integrity. The role of a writing assistant was to identify what he or she considered to be problematic with the writing and to demonstrate how those problems could be reduced or eliminated. Problems could include the incorrect use of a word, sentences that were unclear in their meaning, mixed tenses, a disorganized structure to the paper, ideas that were not expressed clearly, and many other things that made the writing difficult to understand. Writing assistants also taught students strategies to assess and edit their own work.

The program supervisor then went into more detail about the varied types of roles a writing assistant might play, including collaborator, writing expert, learner, mentor, and coach. With these roles came specific expectations, some of which were administrative and others that related to the role of being a peer mentor. For example, writing assistants were responsible for attending weekly training meetings, maintaining accurate notes about their appointments, notifying the program supervisor about students who were in crisis, and acting as role models for other students both academically and socially.

Being an effective peer mentor was an important aspect of this position because students trusted that they were seeking guidance from someone who could offer expertise. Writing assistants were taught to help students understand different writing strategies and skills, how to access available resources, and how to become more independent learners. Writing assistants were also trained on the boundaries of their role. They understood they should only aid and encourage changes and allow the student seeking their help to actually make the changes to their paper.

During the training program, writing assistants were exposed to effective communication strategies and characteristics, including listening skills, questioning for understanding, and summarizing. Assistants were also trained on things not to do, such as give advice and argue about the “right” approach. Part of helping students improve their writing was to understand the mental process that students go through to accept the help. Writers receiving support must learn to change their habits, so the training program addressed a change model to support the writing assistants as they led students through change.

Often students who reached out for support services were experiencing emotional stress in their life, which may have interfered with their academic success. Students who sought writing skills support may have been dealing with emotional stress. The training program addressed how to identify students in distress and how to provide appropriate levels of support and referral.

There were also logistical and administrative elements to the training program to ensure the writing assistants understood their primary function of meeting with students to review their writing assignments. Writing assistants were trained on the proper steps to

follow for leading the appointment with a student and how to effectively provide the service the student was seeking. The training also provided information about writing skills, effective writing strategies, the elements of writing, and common grammar lessons and errors, and it addressed issues of academic integrity and plagiarism. The program supervisor facilitated practice activities that provided the opportunity for role playing as a writing assistant in a controlled environment. The group also discussed the outcomes of the activity and provided a critique of the performance of the writing assistant in that activity with feedback on how to improve. The training program finished by providing responses to commonly encountered challenges by past writing assistants and a reference list of support services and resources.

The training was intended to provide a foundation on which the students could build strong skills as reviewers and providers of comments and suggestions that would assist their peers in improving their papers. The next section looks at the theoretical foundation on which this study was grounded and offers a perspective from which the data will be considered and appraised.

Theoretical Framework

The theoretical framework of any study provides a basis for analysis and making sense of what is significant about the research. This study uses sociocultural theory and related ideas to understand the value of the peer review process on students' development as writers and reviewers. It includes a look at Vygotsky's (1980) understanding of sociocultural learning and the Zone of Proximal Development (ZPD), along with the concept of scaffolded learning. These theoretical concepts are explored through the views

of several researchers and connections are made to the learning process of the students who participate as reviewers in the peer feedback process.

Vygotsky's (1980) sociocultural learning theory is a commonly referenced theoretical framework in studies about the peer feedback process. A sociocultural perspective places a focus on "the collaborative nature of development that occurs through interaction among members of a society" (Hanjani & Li, 2014, p. 101).

Vygotsky's theory relies on two key factors: support from an expert and the ZPD.

Vygotsky believed that students can perform only to a certain level using their own skills and knowledge but with the support of an expert, like a teacher or a coach, they are able to perform at a higher level. This is known as "assisted performance" or "scaffolding."

The ZPD is defined as the area between their individual performance and their supported performance and it is within this zone that learning occurs. Over time, it is expected that the student learns how to perform individually at an increasingly higher level and requires less and less support or scaffolding from the expert (Hanjani & Li, 2014).

Researchers often apply this learning theory to their studies on the peer feedback process because it provides a contextual framework for understanding the impact of the process on both the reviewer and the reviewee (Althausen & Darnell, 2001; Chittum & Bryant, 2014; Diab, 2011; Rahimi, 2013). When students are paired and one is providing feedback to the other, they are engaged in a social interaction. The reviewer has expert knowledge the student receiving the feedback lacks. The more experienced peer can provide comments and suggestions for improving the written work of the other student, supporting or scaffolding the evolving understanding and development of writing skills of the student receiving the feedback. This discourse and modelling between the students,

in turn, provides further learning opportunities for the student providing the feedback and has the potential to impact his or her development as a writer (Althauser & Darnell, 2001; Chittum & Bryant, 2014; Diab, 2011; Rahimi, 2013).

In developing a theoretical framework for this study, I looked at various researchers who had incorporated a sociocultural approach in their studies. Two articles proved to be relevant to this study. The first was authored by Althauser and Darnall (2001), who applied Vygotsky's (1980) pedagogy on assisted performance and the ZPD to their own research on the peer feedback process. Althauser and Darnall took the position that the students' interactions during the peer review process facilitated conversation and thus learning about writing. They specifically designed their study to allow for an in-person session for sharing the feedback so students could discuss it in a meaningful way. Students providing feedback had an internal conversation with themselves as they critically analyzed the work they read and formulated the feedback they provided. Students receiving the feedback also critically analyzed the given comments to determine the value of including them in edits. This process of thinking critically during the peer feedback process required students to evaluate their own thoughts and reactions and assisted them in learning how to apply a similar critical review to their own written work (Lyons, Halton, & Fredus, 2013).

The second article that had specific relevance to this study and the theoretical perspective was authored by Nordlof (2014), who conducted another very interesting study on peer review and its role in guiding the work being done in writing centres. Writing about the peer feedback process from a theoretical perspective, Nordlof paired Vygotsky's ZPD with scaffolding theories to provide the foundation for his ideas. In

Nordlof's opinion, "the ZPD provides us with a more appropriate conceptual basis for writing center work than social construction, as it provides a developmental model for how student learning occurs" (p. 59). Nordlof further explained how scaffolding theories were connected in his approach: "Scaffolding provides the metaphor to describe how that development can be encouraged using cognitive and motivational scaffolding techniques that help students develop in ways that they could not do alone" (p. 59). The goals were to help student tutors in writing centres identify the skills students were trying to develop and for tutors to develop the appropriate scaffolds that would help the student advance those same skills.

These two articles and their authors shared an interest in promoting the use of a peer feedback process as a means of teaching writing skills to students. Althausser and Darnall (2001) took a more practical and applied approach in explaining how the ZPD and assisted performance, or scaffolding techniques, supported students in producing higher quality written essays. Nordlof (2014) approached the idea from a theoretical perspective, describing how the ZPD and scaffolding practices provided "a perspective that actually explains the nature of student educational development and growth (in terms of internalization of socially learned concepts)" (p. 60). My interest was in using these ideas to understand how peer reviewers transfer the knowledge they gain about writing because of participating in the review process and what impact training has on reviewers' ability to be reflective in their learning.

By asking peer reviewers to reflect and comment on their training program and experiences in their role as providers of feedback on writing projects to other students, I hoped to make connections between their training and experiences as a reviewer with

their ability to effectively provide feedback and support to students and to their own learning and development of writing skills. As is evidenced in the next chapter's literature review, there has been a great deal of attention paid to how the peer feedback process supports the learning of students receiving feedback (Cho & MacArthur, 2010; Gere, 1990; Rollinson, 2005; Tsui & Ng, 2000). There has also been attention paid to the positive impacts of providing feedback to the reviewers' development of writing skills (Cho & Cho, 2011; Li et al., 2010; Liu & Carless, 2006; Min, 2005; Tsui, 2002). Less attention seems to have been given to the specific role and impact of peer feedback training programs on the reviewers' development as writers (Berg, 1999). This gap will be addressed by this research project.

Purpose of the Study

This study explored the impact of the training that peer reviewers received on their own writing skills and their ability to be effective in their reviewer roles. It also explored the impact of reviewers' experiences on their own writing skills. The primary purpose of the training that peer reviewers received was to improve their skills and knowledge as reviewers and providers of feedback on the writing projects of their peers. However, there was a secondary, and often unintentional, benefit to the student reviewers' own skills as they applied what they learned in the training to their own writing projects. By applying what they learned in the training, students improved their ability to critically reflect on and evaluate their own writing and to effectively edit their work. After a review of the literature, it was found that researchers have looked at the impacts on writing skills development experienced by students providing and receiving feedback on their writing from their peers. Researchers have also commented on the importance of providing training to students participating in the peer feedback process.

However, there appeared to be a lack of research specifically looking at the role of training students and any relationship that might exist between training and an improvement in writing skills

Many postsecondary institutions host academic skills programs to support the success of students. One such program existed at a midsized university located in southern Ontario, where student volunteers were selected and trained to provide writing skills support. These volunteers, known as writing assistants, voluntarily participated in this study and provided self-reported qualitative data for analysis. Writing assistants took part in a training program and maintained notes to record their experiences following each appointment with a student which are used for reporting purposes to their supervisor and as a reference for future appointments with that student. As research participants they were asked to respond to two questions every 2 weeks prompting them to reflect upon the training and experience of being a peer reviewer. These responses were submitted directly to the researcher for analysis. Close to when the participants finished their term as peer reviewers, a focus group and an interview were held to further explore the experiences that students had as writers after they were trained as peer reviewers. It was hoped the research findings would demonstrate to instructors that there is value in incorporating peer review activities in their courses and to spend time on the training aspect for students.

Rationale and Research Questions

A simple scan of the Internet revealed how common it is for universities to offer academic skills support programs, usually housed within student service departments. Students seek support for writing skills within these programs. One method of providing

writing support is by organizing peer mentor/volunteer programs with students providing feedback to their peers about writing projects in a one-on-one setting. The primary purpose of peer support writing programs is usually to help students receiving the feedback improve the specific assignment under review and, more broadly, to teach them skills and strategies to improve their writing skills.

However, the role of the reviewer in the peer feedback process and the impact of training and experience on reviewers' writing skills have not been thoroughly examined. In order to assess the impact the peer review training program has on the student reviewers' writing skills, this study used the following research questions to guide in the analysis:

1. How does the training that peer reviewers receive on the peer review process for writing impact their own writing skills?
2. How does the training that peer reviewers receive on the peer review process for writing impact their ability to be effective peer reviewers?
3. How does the experience as peer reviewers impact the reviewers' own writing skills?

Outline of the Remainder of the Document

This study was intended to better inform instructors about the impact of peer review training on students' ability to be effective peer reviewers and effective writers. Chapter 1 provides information about the background of the problem and identifies the issue of students demonstrating inferior writing skills at the postsecondary level of learning. One of the strategies used by instructors to develop stronger writing skills is the peer review process. This process is considered throughout Chapter 1 as worthy of further

investigation and the focus on training and experiences of reviewers is identified. This chapter also includes a detailed description of the training program that was offered to the writing assistants who provided data for this study.

Chapter 2 expands on the advantages and disadvantages of using a peer review process in a classroom by examining the literature on peer review and breaking it down into themes. Chapter 3 describes the methodology to be used in this study. Questionnaires were sent to the participants every 2 weeks and the collection of these reports was followed by a focus group and a personal interview. This chapter also includes details about the site and participants that were used. The specific methodology that was used came with limitations and ethical concerns that needed to be considered during the implementation of the research process, and those concerns are also described in Chapter 3. One of the assumptions of this study was that the training students receive helps their development as writers.

Chapter 4 offers a full description of the data that was gathered revealing what each of the research participants reported throughout the data collection phase. My thoughts as a researcher are woven through the reports, offering questions and understandings. Following this, Chapter 5 provides a discussion and analysis about the meaning of the data. My analysis of the data was shaped by the insights of Vygotsky's theory of the ZPD combined with the educational theory of scaffolding, as considered by Althausser and Darnall (2001) and Nordlof (2014). Chapter 5 also addresses the research questions posed in this study, explaining how the data relates to each question and how the results are meaningful to the research community.

This project has the potential to open an area of research in the topic of peer review that has previously been overlooked. Understanding the role and impact of the

peer feedback (or peer review) process to the development of writing skills for the reviewer has the potential to change and improve pedagogical approaches in the post-secondary classroom.

CHAPTER TWO: REVIEW OF RELATED LITERATURE

The peer feedback process is a form of peer mentoring, a popular practice of peer support that has been used as a model of service delivery in different settings for many years. For example, Alcoholics Anonymous is a well-known peer support group that was founded in the mid-1930s and continues today upon which other support groups have been modelled. Peer support services are also common within mental health organizations and educational settings with experienced community members mentoring inexperienced members, providing coaching and guidance on issues with which they need support. Examples include the well-known Kids Help Phone and Meals on Wheels programs in which people volunteer to support their peers and community members with something they are struggling with. Organizations that support English as second language (ESL) learners often recruit English-speaking natives as peer mentors to teach language, spoken and written, to the ESL students. Brock University, like many other universities, runs a program called Conversation Partners, which pairs an ESL student with another Brock student whose first language is English to meet regularly and converse to help build English literacy. Another context in which the peer mentoring model is used is with career development. Kram and Isabella (1985) examined how the role of a peer mentor provided support and growth to someone trying to develop their early career, and found peer feedback offered by the mentor to the mentee was supportive and helpful toward the mentees' advancement of skills and knowledge.

Looking at peer mentoring activities in the educational setting, Topping (1996) wrote about his study of various approaches to peer tutoring in postsecondary environments offering a robust and comprehensive review of nine different approaches.

Topping provided an explanation and commented on the effectiveness of each type with an emphasis on the ones he felt offered the greatest benefits. This article provided examples of the type of peer mentoring processes that are used to supplement teaching and learning environments.

The peer feedback process, when applied to a classroom setting, has been shown to support the development of writing skills for both the student being reviewed and the student performing the review and providing the feedback (Lundstrom & Baker, 2009; Rieber, 2006). According to these authors, writers learn about audience perspective and receive a broad scope of feedback that offers a greater quantity of suggested improvements. Writers also have the chance to be active contributors in the feedback process which can deepen their learning. Students who act in the role of the reviewer also see gains in the development of their critical thinking skills that enable them to better critique and improve their own writing skills (Min, 2005; Tsui, 2002). The training that is offered and the experiences of a reviewer are both significant factors in reviewers' development. Like writers, reviewers learn how writing is perceived by the audience, bringing a heightened awareness to how they review their own work. Reviewers are exposed to varied levels and quality of writing as they assess the work of their peers. They work closely with the evaluative criteria that is used to critique students' writing and they become more familiar with how criteria are used to make evaluations with.

Educating instructors with the knowledge that the peer feedback process has merits related to the development of writing skills might encourage them to consider using this process in their classrooms. Based on what the literature reveals, I believe incorporating a peer feedback process as a classroom activity has the potential to be an

important instructive tool to teach writing skills to students. University instructors of large classes often struggle to provide adequate opportunities for students to practice writing skills because it is difficult for an instructor to make time to read many papers and provide feedback multiple times during a course without additional teaching assistant support (Dempsey, PytlikZillig, & Bruning, 2009). As a result, instructors choose alternate forms of evaluating students' progress in courses such as quizzes and exams and students are given fewer writing assignments to complete (Cho & Shunn, 2007; Hobson & Schafermeyer, 1994). This limits the opportunities students have to practice their writing skills. Involving students in peer feedback processes exposes students to the act of writing and to the analysis and editing steps of peer review. The peer feedback process has the potential to engage students in writing activities and to learn about writing skills without a high demand on teaching resources (Cho & Shunn, 2007).

To better understand what is meant by peer feedback activities and the literature that surrounds this topic, it is necessary to define the peer feedback process, also known as the peer review process. It is helpful to examine the benefits of the peer feedback process to the students receiving the feedback and to the students providing the feedback. It is important to recognize the role of training on how to effectively participate in a peer review process. Passive involvement in the peer review process is shown to offer several benefits, but the deliberate act of training students provides heightened support to the development of their writing skills (Min, 2005). As will be presented in this review, some researchers show that it is the intentional nature of training that has the greatest effect on students' ability to transfer what they have learned through participation in the peer review process to their own development as writers.

Definition of Peer Feedback

Peer feedback activities are deliberately designed pairings or groups of students that exchange pieces of writing and provide comments and suggestions for improvement to each other. Students either match themselves up or are assigned a partner or group by the teacher. Within these pairings, students share their written work with another student who reads the writing to review it and offers feedback and suggestions for improvement. In some peer review processes, it is not a reciprocal exchange of writing, but one student is the writer and the other is the reviewer. The goal for student reviewers is to look for strengths and weaknesses in the paper. They are expected to identify areas within which improvement is needed and to make suggestions for how to accomplish this. Reviewers are expected to analyze and comment on grammar, writing style, and content and to address whether the piece of writing is easy to understand and well organized structurally.

Values and Benefits of Peer Feedback

When talking about the peer feedback process, it is helpful to understand the process has value and promotes benefits to the students participating in it. The purpose of the peer feedback process, when it applies to the review of writing, is to improve the writing project being reviewed. However, students acting as a peer reviewer also gain value and benefit with their own writing skills development.

In this section I will consider the benefits to the writer and the benefits to the reviewer. Students participating in the peer feedback process as a writer experience several benefits including exposure to audience reactions and receiving additional feedback from a peer that adds to quantity and scope of feedback the instructor provides. Writers also experience collaborative work, and learn better communication skills.

Students who participate in the peer feedback process as reviewers benefit by developing critical analysis, problem solving, and self-reflective thinking skills. They are put in the position of having to think critically about writing as they analyze papers for meaning, make suggestions for improvements, and apply the feedback they provide to others on their own written work. Thinking deeply about students' writing and about what they are reading helps reviewers to actively engage in the process of critically analyzing and making suggestions to improve the writing.

This section will examine the role of active involvement in the review process as a benefit to the peer providing the feedback. While the peer reviewer is reading and critically analyzing the paper, they are also performing in the role of a reader. This helps them gain an appreciation and understanding of how the intended readers will perceive the writing, thus learning about the audience perspective. Student reviewers also can learn by observation as they experience reading both strong and weak examples of writing. Each of these benefits will be discussed in the section outlining the benefits to the reviewer below.

Benefits of Peer Feedback and Writing Skills

In the context of writing support, there is a growing interest in learning about the impact of being a peer reviewer and how the process of providing feedback to a colleague on his or her written work enhances the development of writing skills for the reviewer. Chittum and Bryant (2014) were interested in promoting the value of involving graduate students in the professional peer review process as a means of improving the students' writing skills and preparing them for a career in academia. The researchers based their conclusion on a discussion of the theoretical and empirical research that exists in support

of the peer review process. Hawe and Dixon (2014) studied the practice of three teachers who, through different approaches, all demonstrated a belief in the practice of involving students in the learning process by providing feedback on writing to their peers. This study found that it was important for the students providing the review to understand the evaluative criteria being used to assess the writing. The authors discovered the practice of reviewing helped students develop “evaluative and productive knowledge and expertise” and the experience of analyzing and providing feedback led to “student self-monitoring” (Hawe & Dixon, 2014, p. 71). Studies such as these provide evidence that the peer feedback process benefits students.

The next two sections provide confirming arguments found in the literature about the benefits of the peer review process to the writer whose work is being reviewed and the benefits the process brings to the student reviewing and providing feedback on another student’s writing.

Benefits to the Writer

Students who participate in the peer feedback process and offer their work for review benefit in several ways when they place value on the process and commit themselves to listening to and understanding the feedback they are offered. Students who are not engaged in the process benefit less from it.

Audience reactions. One benefit of receiving peer feedback is that it exposes the writer to audience reactions, broadening the purpose of their writing to reaching beyond their own messaging to ensuring the readers and their instructors have a shared understanding of it. Peer audiences’ reactions to something they have read tend to be delivered directly and honestly. The writer learns quickly whether her intended message

was what the audience received and she is, therefore, motivated to revise for clarity (Gere, 1990; Tsui & Ng, 2000). Gere (1990) studied writing groups and found that by talking about their writing, participants learned how others understood or did not understand the meaning of their words and how to better consider the needs of the audience when writing. Rollinson (2005) found that student writers viewed instructors differently from peers and that peers were considered more of a “real audience.” Peers were more likely to inform student writers whether their message was clearly communicated and to encourage them to write in a way that met the “characteristics and demands of her readers” (Rollinson, 2005, p. 25). Learning to write with an understanding of how a reader could perceive a piece of writing is a benefit to writers.

Multiple sources of feedback. A second benefit for writers is that peer feedback is seen to supplement the feedback offered by the instructor, providing diversity of input from which to learn about one’s own writing. Having feedback from more than one source and from people with varied levels of expertise offers a wider scope of suggestions from which to draw learning. This variety of feedback assists the writer with the editing and revising processes (Cho & MacArthur, 2010; Gere & Abbott, 1985). The advantage to being told about the reactions that multiple individuals have to a piece of writing is receiving a larger selection of suggestions for improving the work. Each reviewer approaches the writing from a different perspective and will focus on different aspects of the piece. The result is that multiple reviewers will provide different types of feedback from which the writer can choose to use to edit (Gere & Abbott, 1985; Min, 2005). In their study of writing groups, Gere and Abbott (1985) used a system of coding that recorded individual idea units, which they defined as unique thoughts that show the reader’s “focus of attention” (p. 367). The number of idea units was a demonstration to

the researchers that students benefited from multiple perspectives in the feedback they received. Students in Min's (2005) study reported that the issues reviewers identified as problematic were consistent, but their varied perspectives and suggestions for improvements covered a broader scope and deepened their understanding of the content. These studies support the thought that students find it helpful to receive feedback from multiple people with different viewpoints.

Communication skills. Working as a pair or in a group and offering each other feedback on a piece of writing helps to teach students how to give and receive feedback productively and positively (Lui & Carless, 2006; Nilson, 2003). Providing and receiving feedback are important professional and lifelong skills that further support the general skills of working with others in a team environment. As students move through their studies and beyond into the professional world, they are often put into situations where they must work with colleagues in a team environment. It is critical when working in teams to have strong communication skills. Giving and receiving feedback sensitively without emotion and without judgement takes practice. Lui and Carless (2006) promote the importance of developing a "non-threatening, collaborative atmosphere" that reduces the fear students often feel by sharing their work and putting themselves in a position of vulnerability of being judged (p. 288). Participating in a peer feedback process that has been properly set up to include trust and positivity in a classroom setting can provide students with the necessary practice of working in team environments.

Benefits to the Reviewer

Broadly speaking, researchers suggest that student reviewers develop strong critical thinking skills which enhance their ability to review and improve their personal writing skills (Althaus & Darnell, 2001; Cho & Cho, 2011; Nilson, 2003; Tsui & Ng,

2000). As an example, student reviewers demonstrate how they use reflective thinking when they make connections between their approaches to reviewing their peers' writing and how they approach their own writing and editing skills (Lundstrom & Baker, 2009; McMahon, 2010; Topping, 2009). Thinking at this level requires reviewers to be actively engaged in the process which continues to stimulate their own learning. Reviewers also benefit from putting themselves in the role of a reader, thus learning how the audience receives messages from the writing they are reading. This section explores these benefits.

Critical thinking skills. Critical thinking is defined as an approach to thinking that is deliberate, based on inquiry and involves problem solving skills like analyzing, evaluating, reasoning, predicting, and transforming knowledge (Scheffer & Reubenfeld, 2000). Critical thinking is when students take information and interact with it using functions such as analysis, synthesis, and conceptualization in ways that make the information more meaningful to them. Reading the written work of a peer and evaluating it forces the student reviewer to actively seek an understanding of the paper to be able to pose questions about it and consider it carefully.

Using their critical thinking skills, reviewers move beyond passively reading a paper and providing comments. They must pay close attention to what they are reading, determine their level of understanding of the content, and be critical in their evaluation to be able to provide sensible and meaningful feedback. It has been shown that students who provide strong feedback on the work of others write stronger papers themselves (Althausser & Darnall, 2001). The thinking processes a reviewer uses to analyze a peer's writing and make suggestions for improvement influences their approach to analyzing and editing their own work. By applying the same criteria used to review the work of a peer to one's own paper, the reviewer improves the quality of their own writing.

As Nilson (2003) found, the peer feedback process is valuable because it asks “students to perform cognitive operations—primarily comprehension and analysis” (p. 37). Comprehension and analysis are functions that involve the reviewer more deeply in learning about writing. Nilson (2003) noted that students who were asked to read their peers’ work were put in the position of paying closer attention to the task to be able to identify issues with the “content, organization and mechanics” and they might have to read the paper more than once to do so (p. 36). The reviewers had to learn how to read their peers’ work attentively so they could think carefully and deeply about it and consider how to make suggestions that would improve the writing.

Participating as a reviewer also allows the student to develop problem-solving skills that contribute to their cognitive development and critical thinking abilities. Student reviewers must actively engage with material beyond a surface read and seek a deeper understanding of the writing to be able to comment on its strengths and weaknesses. Cho and MacArthur (2011) found the act of identifying problems in peers’ writing was a “significant predictor of writing quality” (p. 79) for the reviewer. This finding led the researchers to reasonably argue that “identifying problems in peers’ papers and thinking about potential solutions would help reviewers when they wrote papers in a similar genre later” (p. 79). Students interviewed in this study expressed they learned about strengths and weaknesses in writing samples by reviewing the work of others. By critically analyzing the writing, identifying ways it could be improved and reflecting on how they themselves write, gives weight to the concept of teaching writing skills using the peer feedback process.

One of the most beneficial and impactful skills students learn from the experience

of reviewing is evaluative problem-solving skills. Research studies show that actively engaging with the material under review, reading it for comprehension, and making suggestions for improvement prompts the use of critical and evaluative problem-solving skills which may be transferred to a reviewer's own writing (Lam, 2010; Min, 2005). They are more conscious about applying the feedback they offer to their peers to their own work, thereby enhancing their self-assessment skills. Being able to effectively assess their own writing is a type of critical thinking that student reviewers develop through participation in the peer feedback process. Studies have shown that student reviewers have a greater tendency to become reflective thinkers who critically analyze their own work to a higher degree than students who merely receive feedback (McMahon, 2010; Topping, 2009). In a study by McMahon (2010), participating as a reviewer prompted students to take an objective approach to understanding and applying the evaluative criteria to their peers' work. This led to improved judgement skills. It also led to reviewers more effectively reviewing their own writing. It was through the act of critically analyzing the work of a peer and articulating suggestions for improvement that students developed the ability to reflect on their own work in similar ways. Reviewers applied the lessons they learned through reviewing the work of others to their own writing, and revised their own work using the same or similar feedback they offered to their peers (McMahon, 2010).

Lundstrom and Baker (2009) also took an interest in learning about the improved writing skills of peer reviewers as compared to peer editors. These researchers found differences in the types of improvements beginner learners showed versus intermediate learners but both groups could "improve their own writing by transferring abilities they

learn when reviewing peer texts” (p. 38). Beginner groups learned more about the local (mechanics) aspects of writing while both groups learned about the global (organization and development) aspects of writing. The learning occurred as they reviewed their peers’ work and then reflectively applied the same critical analysis to their own work. When students turn what they learn through the course of reviewing and providing feedback to others back onto their own writing process, they are employing critical thinking skills.

Engaging and active involvement. A significant piece of the discussion around benefits for the reviewer is how deeply the reviewer engages in critical analysis of the material under review and how actively involved they are in problem solving. The significance of both these activities is measuring the level of engagement and active participation in the peer feedback process by the reviewer.

Li et al. (2010) reported that their study results were “congruent both with assertions in the literature that active involvement in the peer assessment process improves learning, and studies reporting student perceptions that reviewing peers’ work facilitated their learning” (p. 532). Active involvement in the peer feedback process is defined as seeking to understand the ideas being presented in the paper under review, identifying problems or weaknesses in the writing, and making suggestions for improvement. To engage in this level of understanding and critique, the reviewer must approach the task using critical thinking skills and put forth intellectual effort. This is different from being asked to edit another person’s work for grammatical errors and other surface-level issues, which is considered a more inactive task and does not require the reviewer to engage with the work or feel invested in the outcome. The task of reviewing for surface-level issues does not require the same level of critical thinking and level of

content analysis. In their findings, Li et al. (2010) determined there was a significant relationship between the quality of feedback a reviewer provided to others and the quality of their own writing projects. In comparison, there was no relationship between the quality of feedback a student received and the quality of their final project. The researchers concluded the active role of a reviewer brought on the benefit of improved writing skills to the reviewers themselves.

Althauser and Darnall (2001) crafted a study designed to assess whether an assisted performance approach to writing assignments would lead to improved results. In their course they implemented a peer feedback process with the intent of leading students through the process of thoughtfully and deliberately critically analyzing each other's work using structured criteria and active learning approaches. Althauser and Darnall found that students who offered higher quality reviews submitted higher quality work of their own. Students who were actively involved in the review process saw greater benefits from the process than those who played a more passive role. A passive role would have been receiving feedback without participating in any other role in the process.

For instructors looking for a way to further engage students in the learning environment, involving them in a peer feedback process can achieve the aim towards greater participation (Topping, Smith, Swanson, & Elliot, 2000). Placing students in the role of reviewer gives them a sense of responsibility and commitment towards helping their partner as much as possible. Understanding their partner is also responsible for providing feedback on their paper can result in a higher level of motivation and investment with the writing activity and the learning environment. McMahon (2010)

found “having to give feedback to one’s peers prompted more critical reflection on how students prepared and presented their own papers” (p. 281). Students had to pay more attention to the assessment criteria to be able to evaluate other students’ work which then helped them meet the criteria in their own writing. Students’ motivation and engagement in the writing process was positively impacted by the role they played as a reviewer.

Nicol (2010) took the perspective that feedback processes were failing to meet students’ needs because they lacked stimulating dialogue, replacing it with feedback that was delivered like a monologue. After reviewing and describing a variety of forms that feedback is commonly offered through, Nicol found the peer feedback model where students receive remarks and suggestions through discussion and exchange with each other offers much of what is missing when only the teacher provides feedback. He wrote: “producing feedback is more cognitively demanding than just receiving it: the construction of feedback is likely to heighten significantly the level of student engagement, analysis and reflection with feedback processes” (2010, p. 514). Nicol was arguing that the peer feedback process benefits reviewers by prompting them to use and further develop their cognitive skills such as reasoning, negotiating, explaining and understanding.

Audience perception. Having already discussed in this review that students who receive feedback gain a better understanding of the audience’s reaction to their work, it is understandable there is a similar benefit to the student providing the feedback and acting as the audience member directly. Reviewers become part of the audience as they assume the role of the reader. This allows them direct access to the audience perspective, which has been shown to enhance their own skills as writers (Cho & Cho, 2011). As audience

members, reviewers consider and relate to the aspects of the writing that resonate with them and they understand well. They also identify the elements with which they do not connect easily.

Cho and MacArthur (2011) tested their “learning-by-reviewing” hypothesis whereby students learn about writing by reviewing and commenting on papers written by their fellow students. It was a comparative study with students who read the papers written by others, but did not provide comments about them. Cho and MacArthur found the act of requiring student reviewers to actively respond to the text they were reading required a level of understanding that exceeded that of the reading only group. Only the group who provided comments showed improvement in their own writing. This is an example of how reviewers provide thoughtful suggestions to improve the elements they either do not understand or think can be communicated more clearly. Student reviewers who can transfer this knowledge of audience perspective to an evaluation of their own writing, along with an understanding of the target audience and how best to communicate with them, see improvement with their own writing skills (Cho & MacArthur, 2011). Being able to communicate clearly and effectively in writing with the intended audience requires the ability to understand their perspective and to critically analyze one’s own writing to determine if it will be understood by the reader.

Learning by observation. Student reviewers continue to use critical thinking skills when they observe high-quality versus low-quality writing samples. Reviewers are able to learn through observation from their exposure to a variety of writing examples produced by their peers. Reviewers must think critically about the work to be able to assess what makes it strong or weak. While assessing the work, they are also practicing

their editing skills as they make suggestions for improvement. By examining strong samples of writing and samples that are weak, student reviewers learn the differences between such samples and can apply what they learn to their own writing projects using their analysis and reflective skills (Cho & Cho, 2011; Tsui & Ng, 2000). Following an example is often helpful for students who are developing their writing skills, because it provides guidance and a comparison point. Being able to distinguish between strong and weak writing comes with experience and the more practice reviewers get, the better they become at it.

Student reviewers also learn through observation when they repeatedly refer to and confirm the evaluative criteria that they must follow to assess the work they are reviewing. Observing how the criteria apply to the work under review allows reviewers to become more familiar and comfortable with the measurements and better able to measure their own work against the criteria. Researchers find that the act of studying criteria and developing an understanding of how to use it to evaluate someone else's writing makes it easier for the reviewer to apply the criteria to their own work (Crossman & Kite, 2012; Hawe & Dixon, 2014; McMahon, 2010; Rieber, 2006). In another study, reviewers referred to their own work and measured it against the criteria to practice their application prior to reviewing work of their peers (Topping, 2009). This is not to suggest that the peer feedback process should include formal evaluation related to the grading process. Instead, peer feedback is a valuable formative assessment opportunity to further the student learning and measure students' progress with the specific writing activity (Topping et al., 2000).

Zimmerman and Kitsantas (2002) took an interest in writing and studied how writers advanced their skills and developed their self-regulatory skills. These researchers designed their study for students to first observe a model of revising written work, then they emulated it by practicing it. During this phase they received social feedback about their skills which helped them internalize it with the measurement at the end being how strong their self-regulatory skills were. Two influential factors emerged: “self-efficacy beliefs (the degree to which a person feels capable of performing a particular task) and intrinsic interest in the writing skill” (p. 660). This study compared how each of the model groups received varied levels of support with the overall finding being observation and emulation leads to self-regulatory behaviours.

Student reviewers are in a position of observing multiple pieces of writing produced by their peers. Some of these papers provide better examples of quality writing than others. Learning by observation means reviewers take notice of the qualities in a paper that elevate it to a higher level and mimic those qualities in their own writing. Reviewers are also in the position of practicing their evaluative skills by repeatedly measuring writing samples against a set of criteria which gives them an understanding in general of how to understand criteria and match it with their own writing projects.

Summary. Reflecting on what the literature reveals about the benefits of the peer feedback process to writers and reviewers, in both roles, students gain an understanding of how the audience could perceive their writing which helps them shift their perspective and focus as writers. There are also some unique benefits to each role. Writers have the advantage of receiving suggestions for improvement from multiple sources which gives them a greater range of comments and critiques from which to choose and make revisions

with. They also learn to communicate with their peers in more sensitive and concise ways. Reviewers benefit in their development of critical thinking skills and their abilities to think more deeply and analytically. The level of engagement and active participation increases for reviewers as they are tasked with stimulating and challenging responsibilities that impact their peers and the quality of their papers. Reviewers work with a variety of writing pieces that vary in quality, taking lessons from the stronger pieces of writing and incorporating some of what they see that adds to the strength of it. Liu and Carless (2007) acknowledged “one important way we learn is through expressing and articulating to others what we know or understand. ... One aspect of this (feedback) process is providing learners with opportunities to explore and articulate criteria and standards in the context of working on specific assessment tasks” (p. 281). Student reviewers take what they learn while assessing other students’ work and review and assess their own work in similar ways, demonstrating they take value from being a peer reviewer. The next section will look at the impact of training students on the peer feedback process, how to participate in it and the benefits of it.

The Impact of Training on the Peer Feedback Process

Having considered the positive impacts of the peer feedback process, it is also important to recognize that training students on the peer feedback process will impact the experience they have through their participation in it. A training module has the potential to raise the participants’ perception of value in the process. Training can teach reviewers how to provide more detailed and meaningful feedback and it can teach writers how to negotiate the meaning of the feedback they receive to enhance their understanding of it. Reviewers may also be impacted by learning more about critical thinking and reflection

skills which are critical to the development of their own writing skills, as well as making them stronger reviewers.

Although the type of and approach to training varies across studies, the importance of providing some level of training for students involved in the peer feedback process is addressed by researchers (Berg, 1999; Lam, 2010; Min, 2005). Lundstrom and Baker (2009) and Min (2005) go one step further by directly linking the improvements in students' writing skills as observed in their studies with the training students received prior to engaging in the peer feedback process. Training can include coaching how to offer and receive feedback positively. It can offer lessons to reviewers on how to understand and apply measurement criteria such as a rubric. Training can also teach students how to think critically about writing beyond providing surface-level comments about the mechanics to address the global issues of organization, ideas and purpose. It is important to train students on how to edit a piece of writing and how to effectively deliver their feedback in a sensitive and clear way.

It is also important to train students how to assess the validity of the feedback they are presented with by a peer. Students need to know how to effectively evaluate the feedback that they receive for themselves and decide what to incorporate into their paper (Li et al., 2010). Training students about both the roles of reviewer and receiver of feedback allows students to fully capitalize on the benefits of the peer review process toward improvement of their own writing skills.

Training students how to effectively participate in the peer feedback process has a direct impact on the success of the process and the quality of feedback students provide to each other (Min, 2005; Rahimi, 2013; Zhu, 1995). When students trust they are

receiving quality feedback from their peers they are more likely to see value in the peer feedback process and be more engaged in the process (Lui & Carless, 2007). Engagement leads to a more active participation in the process by both the reviewer and the writer.

The rest of this chapter is devoted to a discussion about training students on the peer feedback process and the positive impact it has on the quality of feedback that is provided. Training teaches students to provide detailed comments to their peers and students receiving the feedback learn to question and seek clarification about the comments that make the feedback easier to accept and incorporate into their paper. The training process helps students to develop critical thinking skills such as focusing on the global aspects of a paper. Lastly, students who have been trained show higher levels of confidence in their writing skills. These benefits are all a result of training students about the peer review process.

Providing Detailed Feedback

Students need to be taught how to communicate their ideas and suggestions to their peers in ways in which the student receiving it will understand and see meaning. Tsui and Ng (2000) studied teacher and peer comments asking which ones were more valued and incorporated into revisions made by students receiving the comments. Overall, the researchers found that teacher comments were perceived as having higher validity; however, students reported “peer comments did help them to revise and improve their writings when they were able to provide concrete suggestions for revision” (p. 166). Training students on how to provide good feedback leads to more detailed and thoughtful comments by reviewers.

The purpose of a study led by Lam (2010) was to train students in giving

effective feedback to their peers and to help them learn how to successfully integrate feedback into their own writing for improvement. Through interviews, Lam observed that students who learned through the training to thoughtfully study their peer's work could transfer this ability and apply it in similar ways to their own written work. Lam determined that training contributed to the development of editing and revision skills students used both as reviewers and writers. However, Lam also recognized that "the success of peer review in the writing classroom largely rests on students' belief in the usefulness of the peer feedback" and their ability to understand and interpret the feedback into their work (p. 121). Training supports the argument Lam made.

Negotiating Meaningful Feedback

The writer is also influenced into placing value on the peer feedback process by receiving training. Training teaches participants what the purpose of the feedback activity is and how to participate in it effectively as a writer. Training emphasizes that the peer feedback process has value (Lui & Carless, 2007). When the writer believes they have something to learn from the reviewer and the feedback process, they are more likely to engage in asking questions for clarification to better understand the suggestions they have received, thus making the feedback more meaningful. Zhu (1995) was interested in studying the types of comments students provided to each other in a peer feedback process, comparing the students who received training to students who did not. Zhu provided students an opportunity to engage in discourse about the feedback being exchanged and he found that training students, "had a significant impact on both the quantity and quality of feedback students provided on peer writing" (p. 516). He witnessed students negotiating the meaning of the feedback they received which

prompted the reviewer to be more specific in their comments. More specific comments made it easier for the student receiving the feedback to understand and incorporate the feedback in a meaningful way into their work. Writers who value the process are more likely to seek an understanding of feedback to make it more useable.

Students who have been trained and place value in the process also appear to have a higher expectation of the feedback they are given because they enter the process planning to integrate it with their work before they actually receive the feedback. Stanley (1992) was interested in peer-group communication and whether a greater amount of coaching would increase the productive conversation between students. Stanley noticed that “the writers in the coached groups were more assertive in getting advice from their evaluators. This assertiveness was evidenced in the more frequent incidence of coached writers responding to evaluators through restatements and comprehension checks” (p. 229). Trained or coached writers see value in the comments and suggestions peer evaluators offer and more often seek clarification to better understand the feedback to incorporate the comments effectively in their papers.

Training Develops Critical Thinkers

Training has also been shown to help student reviewers focus more on the global aspects of a paper, providing comments on the meaning of ideas being presented and making suggestions for improving the understanding of the reader instead of the mechanics of the writing (Berg, 1999; Rahimi, 2013; Stanley, 1992; Zhu, 1995). A global comment would be providing a suggestion to include an example to further explain something being described to enhance the understanding the reader has of that idea. Being able to comment on the global issues requires critical thinking skills such as

analytical, problem solving, and reasoning skills. In his study, Rahimi (2013) observed a difference in the type of comments, global and formal, that were more frequently offered by a trained versus an untrained group of peer reviewers. Rahimi found that the untrained group focused more on the formal comments which were less about ideas and content and more about mechanics. The trained group commented more on global issues which suggested that “writing content and organization have priority over the formal aspects” (p. 85). Global comments are considered to contribute more to improved and higher quality writing (Zhu, 1995).

Learning to focus on global revisions contributes to the quality of the reviewer’s writing. Berg (1999) researched the impact of training on revision and writing outcomes between a trained and untrained group when writing first and second drafts. She found that trained students revised their work based on comments about meaning and improved the quality of their writing with a second draft more than the untrained group. Berg concluded that “appropriate training can lead to more meaning-type revisions, which in turn may result in better quality writing” (p. 230). In Berg’s study, students more commonly revised their papers to better explain the ideas and concepts they were trying to describe making it easier for the reader to comprehend the ideas being presented.

Training students to be analytical in their approach to editing supports their development of critical thinking skills. Teaching students to use reasoning and problem-solving skills, and to provide comments that are more focused on global revisions, helps build students’ cognitive abilities such as their analytical, reasoning and problem-solving skills. These skills are essential for reviewers to be able to provide valuable feedback to their peers. These skills are also necessary to be effective writers. Lam (2010) noticed

that training students on editing and revising taught them to be more critical and reflective in their approach to reviewing both another students' work and their own. In the Lam study, students commented that the training they received helped them understand that if they can assess other students' papers, they were equally able to be critical about their own. In this example, students identified they were applying the same standards and strategies they learned to review their peers work with onto their own work.

By training and preparing students to participate in the peer feedback process, McMahon (2010) observed a difference in how open students were to providing feedback to each other. McMahon experienced "more critical and reflective classroom discussion; generating feedback that tapped into the knowledge and experience of the peer group; facilitating reflective self-assessment; and creating a climate that fostered the development of a learning community" (p.283). Participants in McMahon's study were influenced by their training to develop the skills they needed to provide meaningful feedback to each other and to take a more reflective and critical approach to revising their own work. Adding a training element further enhances students' awareness and ability to self-assess by teaching them the necessary skills. Lam (2010) found that "peer review training workshops have a role to play in helping students become not only better peer reviewers, but also conscientious writers who take responsibility for editing their own work" (pp. 123-124). This idea is further supported by Stanley (1992) who described the skills required by students receiving feedback as needing to "consider the quality of their partner's ideas to gauge the soundness of their logic, to track the coherence of their arguments" (p. 230). Stanley saw these as the same skills that are "essential to writers" (p. 230). These studies all found evidence that the critical thinking skills reviewers were

taught in training were also used when they edited and revised their own work.

Training Develops Confidence

A final benefit of training students on the peer feedback process is the development of self-efficacy and confidence as an editor of writing. Although there are many training models found in the literature, each with its own focus and goal, it is common when using peer review for a specific assignment to train students on the rubric they will use in their analysis of a paper (Dempsey et al., 2010). As explained earlier, there is a benefit to being familiar with the rubric after multiple consultations with it and building a sense of comfort in knowing how to apply its measurements to a paper written by a peer or oneself. Confidence in understanding how to apply the evaluation criteria leads to more effective performance as a reviewer. Having confidence in their ability to effectively perform the functions of a reviewer and apply their knowledge of the rubric leads to a stronger sense of self-efficacy with writing assessment skills (Dempsey et al., 2010). In their study, Nicol et al. (2014) set out to identify the learning processes students experience when they participate in reviewing activities. They found that students were highly engaged in making comments and suggestions for improvement about each other's work and their own, and developed skills that promoted a sense of ownership over the evaluation criteria they were using, making informed judgements about the quality of writing they were reviewing and editing their own work effectively. This study demonstrated students' sense of effectiveness and confidence contributed to the advancement of their skills.

Summary. Training students on the peer review process prior to having them participate in it has several benefits. The training will help students understand how to

commit themselves to learning and practicing the skills of providing feedback so they are able to be specific and clear about the suggestions they make. Students receiving the feedback will learn to trust that their peers have knowledge about writing and will ask more questions to clarify the feedback and will use the feedback to improve their quality of their paper. Training is also a critical for helping students develop critical thinking skills as this benefits them both as a reviewer and a writer. Being able to provide high-quality feedback also increases the reviewers' confidence and sense of effectiveness. The next section will examine the limitations and criticisms of the peer feedback process and the reasons why it is not more commonly introduced as a classroom activity.

Limitations and Constraints of the Peer Feedback Process

Not all researchers and instructors agree, however, that the peer feedback process provides benefits. Some researchers offer criticisms of it that often discourage the use of peer review as a learning tool. A significant concern that many students and instructors have is that students do not have enough expertise, with both the subject matter being written about and about writing techniques in general, to be able to provide knowledgeable and credible feedback to their peers about their work. For example, Tsui and Ng (2000) found that some students believed their peers were not knowledgeable enough about writing to provide credible macro-level feedback. Cho and MacArthur (2011) comment on the belief that "student peer reviewers are novices in their disciplines with respect to content knowledge, writing and constructive feedback" (p. 73). As a result, some instructors are discouraged from using peer feedback activities.

Students also might feel discouraged about participating in peer feedback activities as they, themselves, express discomfort and low confidence with their ability to

offer valuable suggestions and comments. This can lead to reluctance to offer constructive criticism and a tendency to offer empty praise instead (McMahon, 2010). Students receiving only praise as feedback do not gain much in the way of learning because they are not being given any information that would prompt them to think more critically about their work to understand why or how it needs to be improved.

Another criticism is that often students are not well educated or knowledgeable about surface level edits or structural elements such as grammar, spelling, and punctuation (McMahon, 2010). It can be much more helpful to a writer to be given suggestions for improvement related to the content and meaning of their paper but untrained reviewers tend to focus on the surface revisions they may not be well versed on (Min, 2006). The belief that peers are not qualified to make assessments about other students' essays leads to students failing to value the feedback they receive from their peers. In these situations, students continue to view the teacher as a higher authority and the only qualified person able to provide expert feedback. The lack of trust in their colleagues contributes to students' overall lack of trust in the peer feedback process (Tsui & Ng, 2000).

Issues of trust, expert knowledge, confidence, and value continue to present themselves as limiting factors to the peer feedback process and will likely always be a barrier to this process being accepted by some students, instructors and researchers. Despite the opinion that the peer feedback process is not a valuable one, researchers continue to study it from many angles to learn more about its potential to be used as a learning tool.

As acknowledged by Stanley (1992), the primary criticism of training on the peer feedback process is the time it adds to an already limited classroom schedule. Although

most of the researchers who study the impact of training fail to mention this limitation, it is real. Researchers must weigh out the time benefit to the overall process and the result of incorporating peer feedback activities and training to make them more effective with the alternative option of not implementing a peer feedback process and the risk of not being able to offer opportunities for writing practice in a class.

Peer Feedback and Relevant Theories

According to Nordlof (2014), Vygotsky wondered if students' potential for intellectual growth was more accurately measured by what they could achieve with the support and guidance of an expert as compared to what they achieved without any support. This question formed Vygotsky's idea of the ZPD, which he defined as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers" (Vygotsky, 1980, p. 86).

Vygotsky and the ZPD

The original process Vygotsky was describing with the ZPD was that of language development, but he used it as a model for describing the relationship between learning and development more broadly. Vygotsky (1980) explained that children develop language skills initially to be able to communicate with the people who surround them, calling this a social function. As children grow, language becomes more meaningful to them individually and is used to direct their own thoughts, thus becoming an internalized function. Nordlof (2014) summarized this concept writing, "Vygotsky can therefore offer us a model for understanding student learning; it is a developmental process in which concepts are internalized through social interaction" (p. 56). What makes this model more meaningful is how Nordlof further connects the concept of the ZPD to that of scaffolding.

The Scaffolding Concept

The original theorist who promoted the concept of scaffolded learning was Jerome Bruner in the 1950s. His work was built upon by other researchers including Wood, Bruner, and Ross (1976) who described scaffolding as the components of a task that are controlled by an expert or adult that initially extends beyond a learner's capability to allow the learner to focus on the aspects they are competent to achieve. Nordlof (2014) connects scaffolding back to Vygotsky and the ZPD by likening it to the strategies writing assistants might use during appointments to help teach students about writing skills and stretch students' learning capacities to the limits of their ZPD.

Summary

The literature offers insight into the benefits that students receive by participating in the peer review process both as writers receiving feedback and as reviewers offering feedback. These benefits come through critical thinking skills that are used, observing examples of strong and weak writing, and by practicing editing skills. Training students about how to participate in the peer review process as both a student and a reviewer has a positive impact on the development of their writing skills by teaching them the cognitive skills needed to be effective writers.

There appears to be an underlying assumption in the literature that training promotes and supports a transfer of knowledge in student reviewers, thereby encouraging them to apply the lessons about peer review and editing to their own written work. It is this assumption that provides an opportunity for further research towards understanding how students transfer their knowledge of effective peer review to a self-reflective state that furthers their own writing skills.

CHAPTER THREE: METHODOLOGY

This chapter provides information about the research methodology of using questionnaires, a focus group and an interview to collect data with and the schedule of how these instruments were used. Information about the site of the research, which was a midsized university in southern Ontario, and descriptions of the four research participants who were volunteering as peer reviewers in a writing centre are also included in this chapter. Furthermore, there are explanations about the data analysis, limitations and delimitations, the credibility, assumptions, and the ethical considerations of the study.

Research Methodology

To effectively answer the research questions posed in this study, a generic qualitative research approach for data collection was used. According to Al-Busaidi (2008), “the aim of qualitative research is to develop concepts that can help us understand social phenomena in natural settings, giving emphasis on the meanings, experiences and views of the participants” (p. 12). Al-Busaidi goes further, writing that qualitative research methods “are considered to be well suited for locating the meanings that people place on the events, processes and structures of their lives and their perceptions, presuppositions and assumptions” (p. 12). The generic qualitative method of data collection allowed participants to reflect on their experience as a student peer reviewer and to make connections between their success as a reviewer and a writer with the training they received. Participants identified the elements of the peer review training and the experience of being a reviewer they believed had the greatest impact on them and identified which elements of the peer reviewer training had the greatest impact on the development of their writing skills.

Site and Participants

This section provides information about the implementation of the research project, specifically, where the research was conducted, how the participants were selected, and the instruments that were used to collect the data.

Selection of Site

As a researcher, I have the good fortune to be employed by a midsized, research-focused postsecondary university found in an urban centre in southern Ontario, making it a convenient location within which to conduct research. Research participants for this project were recruited from within a preselected group of student volunteers making this a sample of convenience. Teddlie and Yu (2007) explain that “convenience sampling involves drawing samples that are both easily accessible and willing to participate in a study” (p. 78). Convenience sampling is suitable for an exploratory study where the researcher is interested in learning about possible outcomes of an issue or experience (Ferber, 1977). The university organizes an established writing support service using a volunteer group of student peer reviewers who provided writing skills assistance to undergraduate students. The convenience of the location and the accessibility of the Writing Support Services Program led by volunteer writing assistants made this an ideal site for this research project.

Recruitment of Participants

The Writing Support Services Program used its own selection process to recruit and select appropriate student volunteers to assume the roles of writing skills assistants. In this study I recruited a representative sample from within the writing assistant group. The results of this project will be used to arouse further interest and investigation into the

topics under study since the outcomes will not likely be applicable as generalized assumptions on a wider collection of student bodies. Some of the principles this study is based on could be turned into practice easily with an expectation of positive results.

All the available writing assistants were presented with the opportunity to participate in the study. It was anticipated that not all participants would respond to the reflective questions each week they were asked due to other commitments. I sent two questions out by email every 2 weeks over a total of 10 weeks. I also delivered a reminder email to prompt further responses prior to the following week's questions being sent. The total volume of responses provided an adequate amount of data to allow for quality and depth of analysis in the study. Following the holiday break, in early January, I attended one of the regular training meetings the writing assistants had with their supervisor. After explaining she was not involved with the study, she introduced me to the group. I distributed the informed consent forms and clearly voiced this was a voluntary decision that was not connected to their job performance. I explained the purpose of my research and provided information to help the students understand the potential benefits this research might bring to student writers. I also clarified that they could choose to participate or not and if they chose to and later wanted to withdraw, that was allowed without consequence. Some of the students asked questions about the research, the project, and the commitment I was looking for them to make. I responded to all of their questions clearly. I asked them to think about my request for a couple of days and to be in touch with me by email if they decided to participate. Before I left the meeting, I circulated a piece of paper and asked the students to provide me with their email. I told them I would email them to initiate follow up to the meeting. Since not all

the writing assistants attended the meeting, the supervisor forwarded the email invitation I sent the writing assistants to the missing students.

Instrumentation

To gather rich and reliable data, two forms of instrumentation were used in this study. As research participants, the students were asked to respond to a biweekly questionnaire that posed two questions every 2 weeks over the course of 10 weeks. Their responses were the first instrument of data collection (Appendix A). The questions were designed to prompt participants to identify any influences on their personal writing that came from the training they received or their experiences as a peer reviewer. They commented on the usefulness of the training for performing the task of peer review and on their own writing performance.

The second instrument used to collect data was a focus group held in mid-April. One of the participants planned to attend the focus group, but was unable to at the last minute and requested a personal interview instead. Two participants attended the focus group and I met one participant for an interview. Prior to the meetings, I completed a preliminary analysis of the questionnaires which revealed themes in the participants' reports about their perceptions of the value of the training and their experiences in developing their own writing skills. These themes were used to guide the focus group and individual interview discussions and the initial questions that were used to begin and carry on the conversations were developed from these themes. An example of a question that came from a theme was, "I noticed during the questionnaire responses that all of the writing assistances demonstrated or explicitly stated they had high levels of confidence about their own writing skills. Why do you think that is?" Another example was, "Why

do you think the training included mentoring skills?”

During the planning stage of the project I anticipated the discussions would also include themes found in related literature such as how reviewers learned what constituted strong and weak writing through their observations of examples from other students. A second example of an anticipated theme was how the act of thoughtfully reflecting on their training prompted them to apply what they learned to their own writing projects. In the end, themes such as these examples emerged from the data and had strong connections to the literature and past research studies discussed throughout this project.

Data Collection

In September, when the Writing Support Services Program began, the writing assistants participated in an established training program delivered by their supervisor. In the training they received for the Writing Support program, the volunteers learned how to be effective peer reviewers and how to assess writing projects of their peers by suggesting improvements to the writing.

In January, once the research for this project began, I sent the research participants email every 2 weeks asking two reflective questions. The questions varied slightly in wording throughout the collection period to prompt new thoughts from the participants, but always focused on the same goal of asking participants to reflect on the training and experience of being a reviewer. Biweekly responses were collected from each research participant from January through to the end of March. To record the data collected through the questionnaires, participants provided their responses in written format and sent them electronically to me using email. For each participant, I created an electronic folder to file the question responses for future analysis.

Late in March, a focus group was arranged for a mutually agreeable time. The focus group was held at the university in mid-April and the group was served food to create a comfortable and friendly atmosphere. The food also served as an incentive to attend the focus group, and provided a well-needed break for the students during exam study time. The focus group discussion was recorded using two electronic audio devices and I took notes while the participants spoke. One audio recording was transcribed to ensure the written notes were accurate and provided additional data not captured in the written notes which were brief.

One of the focus group participants was unable to attend the focus group as planned and asked to have an individual interview instead. I met with the participant a couple of days after the focus group and using the same two electronic devices, I recorded our conversation while taking notes. This recording was also transcribed to provide an accurate report of what the participant said in response to my questions. The interview provided opportunities for more specific and rich data collection. Firstly, I could ask more direct questions about what the individual had originally reported during the questionnaire process, probing more deeply into her specific thoughts and responses. Secondly, I learned from having done the focus group how to direct my questions in a way that kept the participant focused on the specific research questions I originally posed as part of this project.

Data Analysis

The written email responses to the biweekly questions and the transcribed notes from the focus group and interview provided the foundational data that was analyzed in this study. The data was expected to provide insights into the writing assistants'

perceptions about any impact the training had on their own writing skills and their ability to be effective reviewers. It was also expected to highlight what the writing assistants thought about the influence their experiences as reviewers had on their own writing skills. I thought it was likely that by examining what the writing assistants were reporting on a continuous basis, I would identify any themes that were emerging and start thinking about the interesting things I noticed in the data. My hope was this would lead me toward seeing patterns and relationships that would further guide the ongoing development of questions that would prompt participants to think more deeply about their experiences.

While I was collecting and considering the biweekly responses, I used a journal to capture my own thoughts, impressions, and questions that were triggered by what I was reading. These personal notes proved invaluable during my analysis and writing phases as they prompted connections and new ideas about this research topic and questions.

My facilitation of the focus group and interview were guided by my thoughts and questions arising from the reports the writing assistants had already provided and allowed me to probe the themes and ideas I had developed from an initial scan of the reports. Once these notes were transcribed, I combed through all the reports and wrote individual comments and observations on post-it notes. Looking for themes, I grouped the post-it notes into categories and developed my interpretations and understandings of how the raw data I collected linked together and connected with relevant literature to make sense and respond to the research questions I originally posed.

Limitations and Delimitations

Relying on an established group of volunteers who were associated with a specific program to recruit the research participants from raised several concerns. The size of the sample was small because some of the volunteers were not interested in participating in

the study. A small sample size makes it difficult to draw credible conclusions and relate the outcomes to the larger population (Carr, 1994). Alternatively, focusing on a small sample was helpful for “for understanding subjective experience, gaining insights into people’s motivations and actions” (Lester, 1999, p. 1). A small sample allowed for a deeper analysis with greater concentration on the personal experiences of the participants. The research sample was also limited by the entire group attending the same institution. All of the research participants were part of the same group of writing assistants within the same organization. The risk was that their close relationship with each other may have influenced their perceptions of their experience, which may have been reflected in their reports. Their close relationships may also have been of benefit at the time of the focus group, however, as it may have helped create a more comfortable and collegial environment allowing participants to speak freely and share more intimate information about their personal experiences and thoughts.

There might also have been closeness between the researcher and the participants due to the small size of the group, which may have influenced the researcher during the analysis phase (Carr, 1994; Ganga & Scott, 2006). The relationships between participants and even the researcher might have been perceived as introducing peer pressure on the participants leaving one to wonder whether the participants were reflecting honestly. To minimize this possible effect, I limited contact between myself and the participants to asking questions and thanking them for their responses electronically up until the focus group and interview activities which involved face to face interactions. There was very little opportunity for personal exchanges and I made every effort to keep our interactions professional and focused on the research project. The collection of individual email

reports helped to reduce the possible influence and pressure on the participants because they could write with the confidence that only I was viewing their input.

Establishing Credibility

As a qualitative study, with data analysis relying on personal reflection and reporting, the credibility of this project could easily be questioned. It was difficult to determine the level of honesty with which participants were responding and their level of knowledge regarding the value of training as it related to the development of their writing skills. However, to provide structural corroboration and research credibility, multiple sources of data collection were used with the expectation that they would provide similar and confirming results. To summarize, writing assistants responded to the biweekly questions providing information about their experiences and perspectives, and the focus group and interview discussed themes that emerged from the question responses, thoroughly exploring the insights of the peer reviewers. In all cases, the questions were designed to prompt the assistants to reflect on their experiences, but in slightly different ways. By asking similar and probing questions multiple times, the participants were prompted to think more deeply each time, thereby providing more rich and fulsome responses.

As the researcher, it was then my role to consider the participants' responses and apply my own interpretation to the overall experience of a peer reviewer, understanding my own possible biases as a practitioner in the field of academic skills and writing development. Coming into this project, my assumption was that training would have a positive impact on students' writing skills. I believed that by making students aware that the skills and knowledge they were building for reviewing the work of their peers was

equally applicable to their own writing and editing processes, they would transfer that knowledge into practice more easily.

Assumptions

Knowing that the Writing Support Services Program started in September yet this study began the following January, it was assumed that all the writing assistants would participate in the training program that was offered. Following the initial training, it was also assumed the writing assistants would continue to consult their manual for information throughout the delivery of service. Lastly, it was assumed that the research participants would answer the reflective questions as honestly and thoughtfully as they could, thereby increasing the validity of the conclusions drawn from the data.

Ethical Considerations

An ethics review was completed at both the site at which the research will be implemented and at Brock University by the respective research ethics boards. The program supervisor of the writing assistants was consulted and she provided positive feedback about this research project and its potential benefits along with her permission to conduct the research with the writing assistants she supervises.

As is required by the ethics review board, full consideration was given to ensuring there was continued informed consent by the research participants. At each stage of data collection, participants were invited to continue participating in the study and were reminded of their option to withdraw with no penalty. All data was stored by the researcher in a location to which other people had restricted access. The final report does not use real names of participants to avoid their identity from becoming known.

CHAPTER FOUR: FINDINGS

This study was designed to learn more about the peer feedback process and how it could potentially be incorporated into classroom activities at the post-secondary level of education to help students develop their writing skills. As a qualitative study, data were collected using questionnaires, a focus group, and a personal interview. Chapter 4 describes the findings of this study. Each of the four participants is introduced and their responses and perspectives offered in the questionnaires, focus group, and interview are presented. This chapter also offers a discussion about how the training the participants received impacted their own writing skills development and their ability to be effective peer reviewers. The three research questions that guided this study were:

1. How does the training that peer reviewers receive on the peer review process for writing impact their own writing skills?
2. How does the training that peer reviewers receive on the peer review process for writing impact their ability to be effective peer reviewers?
3. How does the experience as peer reviewers impact the reviewers' own writing skills?

The data are presented using themes that emerged through the analysis process and include peers talking about their training, about their experiences providing feedback, about their own development as writers, and about the social nature of the feedback process. Peers also talked about the reflective thinking that the peer feedback process prompted them to do.

Participants

The participants in this study are four student volunteers from a writing centre who all held a peer reviewer position called “writing assistant.” As writing assistants,

these students held individual meetings with other undergraduate students who initiated the appointment and sought feedback on their writing projects. Students brought a piece of their writing to the appointment for the writing assistant to read and provide feedback on how to improve it. Writing assistants were specifically taught not to edit the work of students, but to provide feedback intended to help students learn how to identify areas of weakness in their own writing and how to improve the writing for themselves. Two of the participants were graduate students and two were undergraduate students. One of the participants was male and three were female. All participants have been assigned pseudonyms for reporting purposes in this study.

Tango was an undergraduate Science student. Her motivation for volunteering as a writing assistant came from the experiences she had as a young student learning English as a second language and a desire to help other students learn how to improve their writing skills in similar ways to how she did. Tango highly valued the gratitude most students offered for her assistance with writing skills.

Scarlett was also an undergraduate Science student. Her motivation for volunteering in the writing centre as a writing assistant was to combine her passions for teaching and tutoring with writing. Scarlett enjoyed being able to ask students questions that made them think and clarify their writing. She found the work of a writing assistant more engaging than simply providing editing services because working directly with another student was interactive and personal.

Daniel was a graduate Humanities student in the Philosophy Department who was dually motivated to volunteer as a writing assistant. In part Daniel saw benefit to himself as the experience could help build skills for his planned career as a professional editor.

Daniel was further motivated by his goal to help other students learn to be good writers and to enjoy writing.

Andie was also in graduate school, but in the Psychology program. Having had experience as a teaching assistant (TA), Andie found it very rewarding to support students in developing good writing skills. She enjoyed learning about other subjects, and said, “It’s almost like I get to take brief mini-courses in subjects that I have never experienced before.” Andie acknowledged she learned a lot from working through the assignments students brought for her to read and provide feedback on.

Themes Found in the Research

Research on reviewers in the peer feedback process points to its benefits as learning about audience perspective, developing critical thinking skills and transferring knowledge about writing to projects (Cho & Cho, 2011; Li et al., 2010; Nicol et al., 2014). The themes are further categorized to align with the research questions guiding this study and are presented using the broad categories of training, experience, and writing skills.

In the sections that follow the first category of findings is “peer reviewers talk about training” and its focus is what each of the participants offered when asked about the training they participated in. Specific themes include the training format, how the training prepared reviewers for their role, and how reviewers compared the value they took out of the training as compared to the value they felt they gained from the experience of being a reviewer. The second category is “peer reviewers talk about their experiences providing feedback.” This section is organized using the themes of what happened in their appointments and the positive effects of being a reviewer. The third

category is “peer reviewers talk about their development as writers.” This category discusses how the reviewers applied their new knowledge about writing to their own work, their increased confidence and sense of effectiveness, and the impact that giving and receiving feedback has on the reviewers’ development as a writer. There were two additional categories that unexpectedly emerged from the data and connected to the literature and theoretical framework selected for this study in significant enough ways to deserve attention and will be discussed at the end of this chapter.

Peer Reviewers Talk About Their Training

This section will provide details about the training program and how the training prepared them to meet the challenges and expectations of their position. Reviewers also shared their perceptions about the value of the training they received and compared it to the value of the direct experiences they had with students. Included are descriptions of the training format, the strategy they learned called reading aloud, and the lessons training taught about technical grammar terms, assessing students’ needs, and building collaborative relationships. The participants’ responses are organized using the themes of training format, strategies taught in training and learning from training and from experience.

Training Format

It is important to know how the writing assistant training program was delivered and what topics were addressed to better understand the participants’ feedback on it. It also helps to bring context to their opinions about the effectiveness of the training. This section is largely descriptive and summarizes the training through the participants’ responses. As an overview, the organized training the writing assistants received was a

one-day course offered in late August, prior to the school term beginning. A training manual was distributed that day for their use. Following that, they were asked to attend a 1-hour weekly meeting which continued until the end of the program in the second term of the academic year. Their supervisor also distributed resource handouts at their weekly meetings that provided information about specific topics for the writing assistants to use as references while meeting with students. An example of a resource handout is APA and Chicago referencing style rules. Together, the training day, the regular meetings, the guide, and handouts made up their training program.

It was difficult for some of the participants to recall their initial training day for several reasons and their memories varied slightly about what was covered. Tango was unable to attend the initial day of training in August and she reported not having a copy of the original training manual that was distributed at this session. Andie had been a writing assistant for a couple of years and she admitted it was a challenge to distinguish each year of training from the other to reflect only on the past year this research project is studying. Doing her best to recall the initial training day in late August of this past year, Andie remembered it covering the topic of positive mentoring relationships and mentoring models, along with specific techniques of how to support academic and writing skills. Andie received the manual that had individual and group activities in it for her to work through. Scarlett mentioned how long ago the training was offered and that she did not have a copy of the original manual that was given to the writing assistants on the first day of training; although she had carefully kept all the resource handouts they were given during weekly meetings. Scarlett recalled that on the original day of training they performed role-plays of common scenarios writing assistants could expect to encounter.

The August day also included brainstorming tips the writing assistants shared with each other based on their past experiences in various leadership roles, in addition to grammar handouts from their supervisor. Daniel said the training session at the start of the first term covered a variety of things including what the role of a writing assistant is, what a typical appointment looks like, how to handle different situations they might encounter in appointments and specific topics that might need to be addressed with students.

During the first-term weekly meetings Tango said the group focused more on sharing their experiences from appointments and giving each other feedback on how to address the more common and recurring issues faced by the group of writing assistants. During the second term, the weekly meetings began addressing specific topics such as contrastive rhetoric, verb tenses, articles, grammatical metaphor, and referencing styles. Scarlett provided a similar description of the weekly meetings and included an example of a topic that stood out for her. Scarlett found it interesting to better understand the circularity of essays written in the Chinese culture. These weekly topics were supported by resource handouts their supervisor gave them and Daniel said he regularly used them as reference documents. As could be expected, the participants named different topics that were more relevant or memorable to them. Andie recalled meetings that focused on specific strategies for supporting students, such as EAL students, overcoming procrastination, tenses and conjugating verbs. Andie also remembered learning about discourse styles across cultures and language and, like Scarlett, she found that topic very insightful.

Training Prepares Students to Be Reviewers

This section is focused on describing the strategies and lessons the participants talked about learning as part of their year-long training activities. The significance of this

section is an understanding of how the training prepared the students to be effective reviewers who assisted students in developing their scope and skills as writers; and also, to recognize writing assistants may have adopted some of these strategies and lessons into their own writing processes. All the writing assistants identified the reading aloud strategy as being very helpful during appointments. This strategy is explored in the next few paragraphs.

Reading out loud. At various times during the collection of data and in response to being asked what they learned during training, each of the participants referenced using the strategy of reading work out loud. Only Scarlett identified that she had already learned this technique while in high school and described how she had used this method as part of her own writing process by reading out loud to her mother. Scarlett continued this practice in university but only read out loud when she was alone. Andie first learned the strategy of having students read their work out loud as a writing assistant, but not in a formal training session. In her first year as a writing assistant, Andie was struggling with how to instruct students on identifying issues in their writing for themselves. She approached her supervisor with this problem and her supervisor suggested she try the reading aloud strategy. If a student was uncomfortable reading their work, Andie read it out loud for them. Often, they heard her hesitating or struggling to get their words out and this prompted further discussion about how to fix the problem. It has proven to be a successful strategy since her first year, so Andie makes sure to share this approach with her new colleagues joining the writing assistant program each year during their initial training program.

During Scarlett's appointments with students, they often wanted a general review

of the entire assignment. In those appointments, Scarlett used the reading aloud strategy, with either the student reading the work out loud or her reading it. By implementing this strategy, Scarlett said students would often hear the weak spots in the writing for themselves because their work became more alive and real when they read or heard it out loud. Scarlett observed that sometimes as the student was reading their work, they would skip over a mistake because if it was a small error, like a spelling error or a word that was out of place, they would know what it should be and not actually correct the work. She had to be careful to follow along to catch these errors. Tango found the most common response from students was a request for her to review their grammar. As a result, Tango found she spent a lot of time reviewing at the local level, but she knew it was equally important to help students craft a coherent and robust argument in their paper. While students were reading their work out loud to Tango, she asked them to pause frequently so she could identify areas that needed improvement.

Although Scarlett and Tango both drew upon the reading aloud strategy, they implemented it differently during appointments. Scarlett used it to encourage students to identify their own errors and to hear the awkward sentences, while Tango tended to take the lead on identifying the weak areas for the student as they were reading out loud. My impression is that Scarlett had more experience with this strategy and recognized the benefit it brought to the student, having used it herself throughout high school. Scarlett understood from first-hand experience how the student received the messages about weak writing simply from hearing the words read out loud, and learned how to identify it better. I believe she wanted her students to benefit in similar ways to how she had by learning to use this strategy on their own. Tango, on the other hand, generally appeared to

approach tasks more directly and methodically. This was apparent in her responses and her actions as a research participant. Tango was always the first participant to respond to the weekly questions and did so within a day of them being sent out. She admitted in her responses and the focus group that her perspective on writing was often shaped by her experience as a science student, with an example being her intention to write in clear and concise ways. Tango seemed to value being clear and to the point and focused on the task that needed to be done. Identifying the weak areas in the students' papers for the student may have been about efficiency for Tango, given there was limited time in the appointments.

Daniel and Andie also expressed that they commonly employed the strategy of having the student read their work aloud as it allowed the students to pick up on a lot of their own mistakes. Andie encouraged the students to interrupt her while she was reading so they could work on anything that did not sound right. In addition to teaching students how to identify weaker areas in their writing, the reading aloud strategy was a very effective technique to help students gain an understanding of how a reader understood what had been written.

Based on his experience, Daniel wrote, "I find that with EAL students, when they read their work out loud to themselves, they pick up on a lot of mistakes they made in their writing." Daniel used the reading aloud technique to help students identify their own errors while he supported the students in correcting the mistakes. Reading out loud, whether the student read their own work or the writing assistant read it for them, commonly prompted students to hear their own errors and led to a discussion or problem-solving effort between the student and writing assistant to fix the error or awkwardness together.

Involving students in the editing process. The reading aloud strategy was one way the writing assistants involved students in identifying and solving the issues in their papers. The participants identified that during training they learned how to encourage students to identify and solve their own errors or weakness in their writing for teaching the students self-editing skills. One of the goals of the program was help students develop self-editing skills so they could become more independent in their writing skills and continue to produce higher quality papers. The training focused on developing good communication skills to effectively prepare reviewers how to do this. Writing assistants further developed their strategies of involving students in the reviewing they were facilitating during appointments as they practiced their communication and coaching skills over the year. Tango found her training on this topic helpful saying, “Whenever I am faced with a student’s disengagement and feel the urge to dive in and salvage a paper by myself, I think back to my training and refrain myself from doing so.” The training helped Tango to remember her goal to work with the student and encourage them to participate in the revision process so they would learn how to revise their own writing. Daniel acknowledged he learned from the training to point out areas of weakness in a student’s writing and encouraged them to try and figure out a solution for themselves. He found this especially effective with English as Additional Language (EAL) students, a group he felt challenged working with.

Learning how to have students make improvements on their own paper was a highlight of the training for Andie. She said, “The most important thing that was focused on in training was how to ask questions of students to help them come to their own conclusions about how to improve their writing.” This approach helped Andie stop

herself from imposing her standards onto students' writing and ignoring their style and goals for their paper. One of the ways the writing assistants would guide the students was to ask questions as opposed to telling them things. Asking questions provoked the students to think about what they were being asked about and to be more analytical and thoughtful about their response. Examples of questions Andie asked were, "what is the point of this paragraph" and "what is the one thing you want your reader to take away from this?" When Scarlett identified an error, she would use similar sentences she wrote to show the student what the problem was and then she asked them to identify the error in their own sentence. When asking the students questions about their writing, the writing assistants were less likely to share their own opinions before asking the students what they thought about the writing. Telling someone what you think is a more singular approach and students are less likely to learn from this. Asking for their opinion about their writing and relating the discussion to their paper brings meaning to the lesson. Learning is more likely to occur when the student makes a meaningful connection for themselves and learning leads to a change in behaviour; in this case students learn how to assess and revise their own work.

Although the writing assistance program identified the need for students to learn strategies that would help them improve their writing skills, the primary reason students made appointments to have a specific piece of work reviewed by a writing assistant was they expected feedback and suggestions for improvements that would result in an improved paper. To provide appropriate feedback, writing assistants needed to be knowledgeable about writing and have skills to properly communicate with their peers so the feedback was seen as credible. The writing assistants relied on their training program

to prepare them in these ways. Training for writing assistants included teaching them the technical terms for grammatically correct concepts and language rules, how to assess the level of support each student needed to select an appropriate approach for each appointment, and how to build a collaborative and trusting relationship with students in the short period of an appointment. The next few paragraphs will focus on these topics and provide specific examples the writing assistants reported on.

Technical terms and mechanics. The formal training program, including the single day in August, the manual, handouts, and the weekly meetings, involved teaching writing assistants about grammar, sentence structure, and other technical terms and language rules. Both Tango and Scarlett spoke in the focus group about how they relied largely on their own understanding of the English language when they identified issues in a student's paper and they credited the training with teaching them the technical terms for language errors. Tango felt it was more difficult to explain to a student why something in their writing was not correct without knowing the proper terminology for the error.

Andie learned a lot about grammar and sentence structure in a formalized way from her training which allowed her to read a sentence and know there was a problem, but also to explain to the student why it was a problem. She found she accessed the resource handouts during her appointments to help students understand more about what she was telling them or to better explain concepts, but commented she did not use the handouts for her own writing. A specific handout that Andie named as her favourite was one she received about tenses. It used a timeline to show where students were writing from in time and it conceptualized tense and time in space, which Andie thought was "cool." Building writing assistants' knowledge of grammar and language was important

in order for them to have confidence in their ability to effectively evaluate another students' writing. Demonstrating comprehension of the language and expertise to name the errors and being able to explain the concept behind the error fostered the editing skills of writing assistants.

Effective communication. In addition to being able to identify issues with written work, writing assistants had to be able to effectively communicate with students. Volunteering in a peer support program such as the writing assistance program required volunteers who could provide guidance, encouragement and build supportive relationships with the students they were mentoring. At the start of the first term Scarlett recalled her supervisor providing examples of the types of students that typically sought out writing assistance and placed them on a spectrum to help the writing assistants know what to expect in meetings and how to approach students differently. Her supervisor explained that often students who are at the low end of the spectrum needed a greater level of support in the areas of grammar, sentence structure, and overall organization. In contrast, students who were at the high end of the spectrum came in with stronger writing skills and were keen to seek support that would help raise their grade. Scarlett found this assessment of the students in her appointments to be accurate. It helped her identify where each student was in their writing journey and how to select an approach that might be effective with them.

Andie also presented the idea that as a writing assistant she needed to be able to assess what level of support students needed when they arrived at an appointment. She considered it necessary to “be able to identify how open students are to change and what they expect of you” before she could determine which approach for providing feedback

would be most effective with that student. This assessment also helped her decide what strategies she should introduce them to that would help them learn to be more independent and able to revise and edit their own work. Andie's idea was like that of Scarlett who talked about judging where a student was on the spectrum of high to low needs for support. Andie reflected on how the training provided information that served as a foundation for her to be able to be flexible in situations where she must choose a new approach mid-way through an appointment to better relate to the student she was meeting with. She said the training provided core principles for how to effectively offer feedback and communicate with students on which she could be flexible and grow from. Andie identified the role the training program played as providing writing assistants with the necessary skills to be adaptable and knowledgeable enough to implement different strategies and techniques in the middle of an appointment to maximize the impact on students.

Mentoring skills. Andie also had an opportunity to respond to an additional question in her interview that arose from her written response about what the training included. She had written about the training including the topic of mentoring and to learn more about this I asked her during the interview why she thought the training focused on mentoring and what the importance of mentoring and mentoring models were to writing assistants. She responded, "Training on mentorship is important because the collaborative relationship you form with students is more important than the strategies you use to support people in writing." Andie saw the hardest part of the writing assistant's job being to convince students that the feedback process was a two-way street and that the writing assistant was not there to simply tell them how to improve their writing. It was important

to Andie for the student to know they would work on the paper together. Her intent was to, “teach them how to get to the place they feel comfortable identifying issues and finding solutions on their own.” Andie expressed an understanding that this required a trusting, respectful, and collaborative relationship and saw that as the reason mentoring was emphasized in the training program.

Comparing the Value of Training with the Value of Experience

Several times during the data collection phase, writing assistants were asked how the training had impacted either their appointments with students or their own writing skills. Consistently, all four writing assistants expressed a belief that their experience as a peer reviewer provided greater value, and contributed more to their success, than the formal training they received. While reading and analysing the participants’ comments, however, I could see they were all indirectly identifying benefits of the formal training and connecting it to either their experience of providing feedback to students or to their own writing process. Therefore, it was important to pursue this idea further and ask them directly what they valued about the training they received to prompt them to think more deeply about its impact. Initially some of the responses indicated the training did not teach them anything different than they learned through their experiences. Then I noticed there were some conflicting reports from writing assistants where they reported the training had value for specific reasons and later reported the exact opposite to be true. This led me to think about why writing assistants would contradict themselves and suggest reasons I thought it could be happening. The next section provides details about what the writing assistants reported about the value of training as they compare it to the value of their experiences.

Daniel expressed his belief quite simply stating he did not learn any strategy or technique in the training he participated in and that his experiences in roles such as a teaching assistant and writing assistant had taught him the skills he needed to help students improve their writing. Daniel wrote, “There was no specific strategy or technique that I learned as part of my training. ... Most, if not all, of the strategies and techniques I use as a writing assistant were developed more from my own experiences helping students.” Throughout Daniel’s feedback it was clear he continued to place greater value on his experiences providing feedback to students on their writing than on any training he had been given.

The fact that Tango was not present for the August day of training may explain why she felt she relied primarily on the lessons she learned through her experience as a writing assistant when she was meeting with students to provide feedback on their writing. In her reports, Tango identified that the training had value, but was less relevant to her performance as a writing assistant than the experience she gained in her meetings with students. Tango said, “Because we are already comfortable with the English language we draw a lot from our understanding. The training was handy for you to know that’s what you would call this type of mistake, but sometimes it is just important for you to know there is a mistake as opposed to what it’s called.”

With this statement, Tango delivered an opposing view to what she presented when she spoke about the importance of learning technical terms for grammatical errors. In a later report, Tango said it was helpful to know the technical term for something when trying to explain why it was problematic to students. When she was responding individually to the weekly questionnaire, Tango expressed it was not as important to

know the proper terminology for grammatical and other language errors. However, when Tango was in a focus group with another student who voiced support for having been trained in grammatical terminology and learning how to explain technical concepts about language to students, Tango echoed her agreement. As she listened to her colleague's rationale of why knowing the proper semantic term was important, perhaps it prompted Tango to think about why she originally did not see it as important and she was swayed into changing her opinion. The contradiction could also be explained as the influence of feeling she needed to agree with her colleague when responding face to face to my questions, but when she was responding on her own in private, she was expressing how she felt more often. This is one of the challenges to a focus group. Instead of thinking individually, participants can be influenced by each other and respond more as a collective.

Returning to the discussion about the impact of training on their experience and their own writing skills, Scarlett's reports confirmed the sentiment expressed by Daniel and Tango about having learned more from the experience of holding appointments with students than directly from the training she received. Scarlett's assessment of the training handouts was, "you'll see most of the training we got was just the bare bones" and "I didn't find the examples very helpful as I already knew them". She commented that, in her opinion, the best training would be to give a basic understanding of grammar and then to start assisting people in appointments.

What was interesting, however, was the challenge Scarlett identified having while providing feedback to her peers and how this created a conflict with her earlier reports about what training offered her. Originally Scarlett described the training activity of role-

playing the writing assistants participated in. This type of exercise is normally intended to provide the participants with examples of something they might experience in the given role they are being trained on. In this case, role-playing could have been intended to teach the writing assistants the type of communication skills Scarlett later said was missing from training. Scarlett's initial comments were that the training was more effective in addressing "the communication of how to be a supporter or a tutor, for example, in the methods of how you actually go through it," rather than teaching about writing structures and rules. My preliminary understanding of Scarlett's assessment about training was that it taught her communication skills. However, Scarlett later commented that it was a challenge for her to be able to explain to students what needed improvement and why it was a problem. She commented, "That [communication] is a whole other skill than a worksheet explains to you." I understood from this comment that Scarlett felt she was not adequately trained in communication skills and struggled with this in appointments. This was inconsistent with her early reports about what the training included and the value she took from it.

It is possible my interpretation of Scarlett's initial comments was less about developing the necessary communication skills and more about the strategies and steps of reviewing and providing feedback. Role-playing, although it can be a helpful simulation tool, does not replicate the exact experience of meeting with a new student and having to build rapport and a shared understanding of feedback. The skills needed to effectively build this kind of rapport come from real life practice and learning to deal with the situations that arise in the moment, many of which are unexpected. People are unpredictable and training content is usually based on predictable scenarios. This might

explain why Scarlett expressed mixed reviews about learning effective communication skills in training.

These inconsistencies about training being less effectual than experiences could also be an indication that the writing assistants were influenced in greater ways by their experiences in appointments than in the training setting. Meeting face to face with students might have been more engaging, providing opportunities for the writing assistants to draw meaningful connections between their appointments and their own writing experiences. This might have made the experience element of the peer feedback process more notable, prompting writing assistants to perceive it as more impactful than the training. Connecting with students and developing relationships of trust and respect with the students during the feedback process could have framed the appointments as rich and validating experiences for the writing assistants and this may have overshadowed the full value of the training they received. Andie was more reflective about this question and intentionally attributed greater value to the training during her interview response than she originally had in the biweekly questionnaire responses.

Andie provided an example of how she transferred the knowledge she learned during training to her own writing process as a student which increased the value of training for her. There was a change in the broader training program for some of the writing assistants this past year due to a change in the overall academic skills support program the writing assistants were part of, but only Andie made mention of it. In past some student volunteers focused on writing support while others addressed other types of academic skills, such as study skills and subject tutoring. This year, the students who volunteered for the program had an opportunity to blend multiple roles together. Andie

took on two support roles, a writing assistant and a general academic skills coach. The formal training program for each role was delivered separately but Andie found there was a valuable crossover between the training and the roles. She talked about how the training complemented both roles and how it helped satisfy her own needs as a graduate student. As an example, Andie described how the academic coach training on procrastination related to and paralleled writer's block. The issue of writer's block was relevant as a writing assistant and the training on procrastination was helpful for teaching the students she met with who were facing this issue. Writer's block was also relevant for herself, as a graduate student writer. Andie made a meaningful connection between what she learned in the training and her own experiences by applying the training lessons to practice as a writing assistant and a writer.

Considering the general agreement amongst the writing assistants that their experiences with peer review contributed greater value to the peer feedback process over training, Andie demonstrated a high level of reflectiveness when sharing her thoughts about the value of training during her interview. Despite her consideration of finding the training helpful, Andie still reported that she believed it was the experience of working with students that prompted the most improvement in her performance as a writing assistant. Andie expressed, "What gives me the most improvement is working with students and seeing what works because when they are in front of you and you ask a question about their writing and they give you a blank face, you know you have to come up with a new strategy." Understanding there were many strategies to choose from and each student would respond differently to various strategies, Andie felt the experience of having to determine which approach to take with individual students "has been the

biggest benefit to my ability to be an effective writing assistant.” In other words, although Andie learned how to be flexible in her approach and gained knowledge about various strategies to use during an appointment from her training, she still felt the experience of making decisions and acting to implement what she’d learned had a greater effect on her own development.

Without being prompted, Scarlett identified a negative factor about the value of training. She reported that during the second term she witnessed the attendance at weekly training meetings declining significantly with only about four people continuing to show up. The implication of Scarlett’s observation was that people were more likely to honour the commitment they made when they felt the experience of it was valuable and worth the time they were putting into it. Declining attendance at weekly meetings could have been an indication the writing assistants did not see as much value in the training meetings as the term progressed as they had earlier in the year.

Another explanation could be that, as students themselves, the writing assistants were prioritizing their time, and the training meetings became a lower priority when put against their own academic obligations and other commitments they had, including their appointment times with students. Prioritization is also centred on value and I am suggesting that, based on the writing assistants’ comments that they did not learn much from their training, they may not have valued the time the meetings required and chose to spend their time in ways they valued more.

By asking the research participants about their training experiences, I learned what they each remembered about their formal training sessions. The formal training included a 1-day program in late August along with weekly meetings with their

supervisor where they learned about new topics and reviewed and compared their practices with their colleagues, sharing ideas for success. It also included the manual and handouts they received throughout the year. I also learned about the strategies writing assistants were taught about to use in their appointments with students. Writing assistants revealed the importance of talking to students about the more technical aspects of their writing and of being able to read body language and understand the needs of students to be able to provide an effective review of their work. The value writing assistants placed on their formal training was compared to the value of the experiences of appointments and providing feedback to students. Andie framed training as a tool that gave her the foundation and confidence on which to build her reviewing skills. By having a strong foundation, training styled her ability to be flexible during appointments and try various approaches to reaching students with her input. Despite how firmly the writing assistants spoke about their experiences being more beneficial to their development than the formal training, Andie's point that training provided the underlying framework for students to make meaning of their experiences was what seemed to most clearly define the value of the training for all the writing assistants.

Peer Reviewers Talk About Experiences Providing Feedback

This section focuses on the experience of being a peer reviewer and the value of the experience. Included are descriptions of how writing assistants commonly began appointments, the strategies they used to provide feedback with and that became meaningful to their own development, and the type of feedback students were seeking. Writing assistants also shared their experiences of feeling effective and ineffective as providers of feedback and they talked about the value they personally took from the experience of being a peer reviewer.

The Experience of Reviewing—What Happened in Appointments

At the start of appointments, almost all the writing assistants commented on how they would immediately involve the students by asking for their input to the appointment.

Identifying students' goals. In Tango's appointments, she said she asked students to explain the assignment to her so she could determine if they understood what they were expected to write about. She followed this with a question about what they wanted to focus on with the feedback. Scarlett used a similar approach and usually began appointments by asking the students what they wanted her to pay attention to and with that information she decided what approach to start with. Andie framed things slightly differently and said she usually asked the students about the assignment and what their goals for the appointment were. This helped Andie to "know what stage of the writing process they're at and what they want support with." Involving students and asking what their purpose was for an appointment also established an expectation of dialogue and participation with the student so they understood the appointment was not only about the writing assistant providing suggestions for improvement.

Daniel used a similar approach at the start of his appointments, asking what students wanted to focus on to ensure he addressed the students' needs. However, Daniel's starting point differed from the other three writing assistants. When providing feedback, Daniel "always began by focusing on the 'big picture' things such as the structure of the paper and the thesis statement." He felt these were two of the most important pieces of any paper. Daniel explained his thought by writing: "Without structure, the paper becomes difficult to read and without a strong central argument, the paper loses its focus." Once he addressed the structural issues, Daniel moved onto what

he called “the smaller things, like sentence structure, grammar, and punctuation.” Daniel chose to focus first on the global issues of students’ papers whereas his colleagues often chose to focus first on the local issues of the writing they were reviewing. Lam (2010) defined two types of feedback writing “global areas refer to feedback about the content, idea development, purpose, and organization of writing, and local areas refer to feedback about mechanics, grammar, and punctuation” (p. 115).

Local and global revisions. Local revision, as described above, includes suggestions and comments that are focused at the sentence level of writing and might include sentence structure or word choice and grammatical or spelling errors. Local issues or feedback is also known as formal feedback. Global feedback is related more to the ideas of a paper, its argument, purpose, evidence, critical analysis, and organization. At the start of appointments, writing assistants often asked students what they wanted to focus on in the meeting to determine what their primary support needs were. As was discussed during the training section, writing assistants were trained to expect that less experienced writers were often seeking more feedback at the local level such as grammatical and technical lessons, while more experienced writers sought support on the global aspects of their writing which included deeper analysis of, and feedback on, the organization of the paper.

In her appointments, Scarlett often began by looking at the level of words that were used. This could be considered the local level of feedback, or formal feedback, as Scarlett included sentences as part of the structural and global reviews that she did. Once some of the more obvious issues were addressed she then moved on to more global feedback by reviewing sentences and paragraphs. Scarlett explained to students that their

word choice may not be the best descriptor for what they were trying to say and could be awkwardly placed within a sentence. Similarly, sentences might be structured in confusing ways and often could be shortened to be more effective and clear. When reviewing writing at the paragraph level, Scarlett considered the overall organization and flow of ideas and determined if the paragraph supported the thesis well. Based on her experience and training, Scarlett characterized students who fell on the lower end of the spectrum as needing more help with their general writing skills. With these students, and EAL students, Scarlett focused more on the formal and mechanical aspects of writing. Scarlett admitted, “If there are a lot of technical issues I won’t mention overall structure because I don’t want to overwhelm them with feedback. I’d rather it is grammatically correct and then address wordiness.” With students who came into appointments with stronger writing skills, she focused more on analytical issues such as organization and argumentation, working at the level of sentences and paragraphs.

According to Tango, her background in the sciences influenced her approach to appointments and her own writing. Being trained to write as a science student, she learned to stress clarity in both her own writing and the writing of the students she reviewed as a writing assistant. As a result, when Tango met with EAL students her focus tended to be on articles, tenses, and how to conjugate verbs. Like Scarlett, Tango paid more attention to the local or technical aspects of writing with EAL students. With students who were in the middle of the spectrum and had somewhat stronger writing skills, Tango found, “their biggest problem is wordiness and convoluted sentences.” Tango noticed that students with strong writing skills who booked an appointment were often seeking confirmation that their work was good. With these students Tango could

provide feedback on the structure and organization of their papers, focusing more on the global aspects of their writing.

When Andie met with students who were unclear about what they wanted to focus on in their appointment, she began by looking more generally at sentence structure and grammar. Andie wrote, “I will point out an awkward sentence and ask what they are trying to say and how could they improve the sentence.” After addressing some of the formal issues, Andie turned her attention to the thesis statement, overall organization and the logic and ideas the student was presenting. Summarizing the typical groups of students that sought writing assistance, Andie identified a group who had low confidence in their writing skills. This group were worried about their grammar, how to write a strong thesis statement and the style of their writing. She described a different group who wrote good papers and were looking for reassurances and validation that it was high quality and called them “perfectionists.” Based on her experience, Andie revealed the most common things she was asked to provide feedback on was grammar, clarity, referencing, and thesis statements from first-year students. Andie’s experience with upper-year students was that they fell more into the perfectionist category and were seeking confirmation they had written a strong paper. With experienced students she tended to focus more on organizational issues and the depth of their analysis and comparison in their paper versus descriptive writing.

Reviewers approach for providing feedback. There is something to note about the writing assistants’ responses on the type of feedback they chose to provide and how they made the decision about what type to focus on during an appointment. Rahimi (2013) did a study with the intention of “investigating whether, as a result of training, students can

provide their peers' papers with more specific and clearer comments, and shift from the comments, that merely address formal errors... to the comments that address the content of the writing (global comments)" (p. 71). Rahimi's results found that training helped reviewers bring better balance to the types of feedback comments they provided, more evenly mixing their remarks with local and global issues. In comparison, the untrained reviewers in his study primarily focused on the formal, or local, issues of the writing they were examining.

Considering these results with my own data, I found it interesting that three of the four writing assistants identified a tendency to focus first on the local issues in students they labelled as less experienced before moving onto the global aspects of the paper. Although this sounds like what the untrained reviewers did in the Rahimi study, I would argue my participants acted more like his trained reviewers. Despite their inclination to start with a review of grammar, punctuation, and awkward sentences, the writing assistants understood the value of providing global feedback in combination with local feedback and attempted to work both into their reviews. I believe the difference in the training in each study explains why the reviewers in each study focused their attention in different ways when providing feedback.

In my study, students were instructed by their supervisor, who was delivering the training, to categorize students by level of experience and to give novice students more support with their grammar and word choice, keeping the feedback focused on the local issues of writing. In contrast, their supervisor described that more experienced students needed support and analysis of the structural elements of their writing, including argumentation, articulation of ideas, and evidence to support their ideas. In Rahimi's

(2013) study, the trained group of reviewers were taught to review their peer's work in four steps, treating all peers the same, regardless of their level of experience as writers. The four steps were: clarify the writer's intention by asking for more information about what the meaning of the work; identify the problems the reviewer sees; the reviewer explains why they identify that specific error; and lastly, the reviewer makes suggestions for improvement in the writing. The varied content of the training between the two studies could explain why the reviewers each focused their attention in the ways they did, all with the intention of providing a mix of local and global feedback.

To provide this mix of comments, each of the writing assistants developed their own rhythm and approach to assessing what the students' primary needs for feedback were and prioritized their initial focus on either local or global level issues during appointments. The act of providing feedback involved more than understanding the local and global aspects of writing to be effective peer reviewers. Writing assistants also had to make judgements about the students they were meeting with and determine what their greatest needs were in terms of receiving feedback and suggestions to improve their writing. Writing assistants had to shift their attention and focus between reviewing at the local and global levels of providing feedback, often within the same appointment.

Once the goals of the appointment were established, the writing assistants began to read, review, and provide feedback to the students. Knowing that the goal of providing feedback was in part to teach students how to identify weak areas in their writing and to find ways to improve it, writing assistants provided guidance, coaching, and examples for students to follow. If the student was unable to identify the problem in their writing, Tango circled it and gave further clues as to the problem. For example, she might have

suggested a sentence didn't sound quite right or there was punctuation missing without naming the exact problem. Then she asked the students what they thought the issue was. Tango brought the specific error to the student's attention and then tried to coach the students instead of just telling them what was wrong and how to fix it so they learned how to revise and edit their own work better. Similarly, Daniel found it helpful to point out weaknesses in a student's paper and to let them try to figure out what the issue was on their own. By heightening the students' awareness to common problems in their writing, it helped them develop the skill of evaluating their own writing. Another strategy Tango used was to give the student two similar sentences and ask what the difference was between the sentences and to select one as more correct or better written.

Scarlett said that instead of simply telling students how to fix all their errors or weak sections, she gave them examples that mirrored their own work and together they identified how to fix or improve the examples. She said, "I'll make up a sentence in passive voice and ask them to change it to active voice, which is not their sentence but it parallels an error they've made. I give them a couple of examples to fix." Scarlett then directed the student back to their own work and asked how they could change it, drawing upon the tools she had given them with the samples she made up. Modelling what good writing looked like provided a reference point for students to go back to.

Andie tried not to over-instruct students on how she would change their writing and instead used the strategy of asking the student questions about their paper and soliciting their input as to the weaknesses and errors. Something Andie experienced was meeting students who were taking undergraduate courses she had previously taken and she remembered completing the same assignments. She reflected on this saying, "I have

to separate my paper from theirs so I'm not dictating their path to match the one I took with that assignment." Andie laughed as she admitted she had to learn to stop talking and listen to the student talk about their assignment. Developing strong listening and communication skills was as important to a writing assistant as knowing how to properly identify technical errors in the writing.

For Andie, the most challenging part of being a writing assistant was getting the students to understand she was not there to edit their work without their input and participation. She said, "Most students I see expect me to just fix their problems." Andie described the process as a "team effort" and identified her role being to "get them to the point where they feel comfortable identifying issues and finding solutions on their own" and not just telling them how to write better. That is one reason Andie found asking questions of students to be an effective approach in appointments. It put the student in the position of providing solutions to improve their own work which led them further down the path of self-evaluating and editing.

The Experience of Being a Reviewer Is Meaningful to Writing Assistants

As with any volunteer position, there must be something about the experience that is meaningful to the person volunteering in order for them to feel motivated to make a commitment. In the case of the writing assistants, it was important to them all that they feel effective in their role. Each of the writing assistants also mentioned something that was personally motivating to them. This next section explores what was meaningful about the reviewing experience for each of the participants.

Feeling confident in their ability to effectively read, understand and make suggestions that improve the work of a peer contributed to the self-efficacy of the writing

assistants. Some of the ways writing assistants measured their effectiveness included directly asking students during, or at the end of an appointment if their feedback was helpful and noting the return of some students to see the same writing assistant for subsequent appointments. The fact that the writing assistants took initiative to learn if they had been effective or not was an indication this was important to them. These research participants were a highly motivated and conscientious group of students.

All the writing assistants shared experiences of having asked students if the appointment was helpful to them. Tango asked students if her suggestions were reasonable and students generally responded positively. Tango said, "At the end of appointments almost all of the students are grateful and agreeable to the suggestions I make." Scarlett wrote, "Students sometimes tell me I help them a lot or they feel better about an assignment." Daniel had similar experiences and said by the end of the meeting he could usually tell if he had been effective in helping the student improve their paper by the student's reaction. Daniel explained he prompted students with a question about whether the appointment was helpful and to date, all the responses he received had been positive. Andie talked about how it was reassuring for her when her students left appointments feeling happy or motivated. Andie wrote, "Some [students] will tell me they feel they have more direction now and know how to continue improving their assignment." Taking the direct approach of asking students how effective it was to meet to review their work gave clear indications that they were helping the students. Although Andie's perception was that students were responding honestly when asked directly about their level of satisfaction, it was possible it was too difficult for a student who did not feel positively about their appointment to express their disappointment face to face and they

might not have all responded honestly. However, there were other measurements the writing assistants used for further confirmation of their effectiveness that might have been more reliable indicators.

Another example was when both Tango and Scarlett talked about students who had booked additional appointments with them for follow-up on the same paper or for assistance with a new assignment. This was an indication they were providing effective feedback and help to those students. Tango found it rewarding to meet with the same students in multiple appointments and explained during the focus group, “When you see students come back for additional appointments with you it gives you validation and you feel like you are doing something right, you are offering them something valuable.”

Daniel and Andie were deliberate about watching student reactions to suggestions they made for improving papers, looking for positive cues and reactions to the feedback they were giving. Daniel said he purposely asked students several times during appointments if they had any questions. This strategy would let Daniel know how interested and engaged the student was and his intention was to prompt further discussion on the student’s work. For Andie, being able to read a student’s reaction to an approach she was using during the appointment was something she felt she did well. She measured her success by the student’s level of satisfaction with the improvements in clarity, organization, and grammar of their work. Andie reported, “I like to see they are more confident in their work or more capable of making meaningful improvements once they leave the appointment.” Andie felt she was mindful of her effectiveness during appointments and credited herself with switching up her approach if students did not appear to be enjoying what they were working on together.

Some of the writing assistants identified other specific things that happened during their appointments that left them feeling effective as a peer reviewer. Tango shared it was common for her to make notes during appointments to explain concepts and provide examples of what she was trying to teach students. When students asked to take the notes home with them it told Tango that her suggestions and feedback were helpful.

An indication of effectiveness for Scarlett was when she witnessed students improving by the end of an appointment as they could identify weaknesses in their writing and making edits on their own. This made Scarlett feel good about having helped students develop their writing skills.

Andie said she felt an appointment was effective if she and the student could address all of the things the student identified as a goal at the start of the meeting. Covering all the things the student felt they needed assistance with made Andie feel productive and effective. Although Andie defined addressing all the student's concerns in a meeting as a positive outcome, it might not have been the most effective approach to the meeting as it might not have allowed her to spend an appropriate amount of time on things the student needed the most help with. Alternatively, writing assistants were in a position of trust and acted using their best judgment. Andie may have been referring to the appointments where it was possible to address all the student's issues because there weren't any significant issues, but in other appointments, she may not have had time to address everything and that student may have needed two appointments on the same paper to receive all the necessary feedback that would have helped them.

When writing assistants felt productive, helpful and good that they had helped a student it contributed to their overall sense of effectiveness which helped to build their

confidence. It also added to their motivation for participating in the program as they all admitted that this was one of the reasons they had signed up for the program. Helping students brought this group of writing assistants a sense of intrinsic value.

In addition to building their confidence, the experience of volunteering as a peer reviewer of writing brought other benefits to the writing assistants. They were each personally motivated to take on this role for the skills they would learn as individuals and they each found it rewarding to be in a position of helping others.

Each of the writing assistants were personally motivated to volunteer as a peer reviewer and they each expected to receive something from the experience for themselves. For example, the experience of being a writing assistant was of value to Tango because she enjoyed working and learning from a diverse group of people. Meeting and working with her peers allowed Tango to develop compassion in her personal approach to communicating with other students as she taught them lessons about writing. Scarlett had a similar purpose. When asked about her motivation for volunteering as a writing assistant, Scarlett responded, "Becoming a writing assistant was the best way for me to combine my love of teaching / tutoring and writing." Learning to teach other students was a skill Scarlett valued and she knew the experience as a peer reviewer would give her this opportunity.

Daniel's goal for participating in the program was also related to his own skill development. He had already developed editing and revising styles from his experience as a teaching assistant and the position of writing assistant helped him to further develop these skills. Because of his experiences, Daniel felt he learned how to be flexible in his approaches. He recognized each student and appointment required different things from

him as he set out to help students learn to improve their written work. All three of these participants framed the role of writing assistant as providing an opportunity to develop the necessary communication skills to be able to instruct others and help them develop new knowledge. The process of providing feedback was a means of developing their competence explaining concepts and ideas to other students in ways that they would understand and learn from.

Working with students and witnessing their progress also brought a sense of intrinsic value from the work writing assistants were doing. It was rewarding for Tango as most of the students she met with expressed their gratitude for the time she spent with them. After a year as a teaching assistant for a writing course, and finding it gratifying to support students' development of writing skills, Andie decided to apply for the position of writing assistant. In both roles, Andie described feeling a sense of fulfillment to see students develop stronger writing skills and leave meetings with greater clarity and confidence than when they arrived. Daniel considered himself to be a good writer and reported he enjoyed making the experience of writing easier and fun for other students. Scarlett talked about how her friends knew she was a writing assistant and as a result, they sometimes asked her to edit their work. This made Scarlett feel good about her writing skills and increased her confidence as a writer and reviewer. She said, "I find it humbling to be in a position where people feel they really need your help. It is healthy to put your own work and stresses aside for a short while and focus on other people."

Writing assistants found the experience rewarding because of the support and help they were able to offer to students. Knowing they were making a difference in the students' lives and they were contributing to their development as writers and

independent learners made the writing assistants feel good. Influencing other students and building positive relationships with them was important to the research participants.

Peer Reviewers Talk About Challenges

It is much easier to talk about personal success than it is to disclose a weakness, but both Daniel and Andie admitted an area they could each improve in as writing assistants. Daniel said he found appointments with EAL students more difficult and he felt he might not be as helpful as another writing assistant might have been in those meetings. Andie admitted that although she had improved her understanding of and interactions with EAL students, she continued to be uncomfortable with her role of supporting them effectively. Elaborating on this, Andie described that working with EAL students required a high degree of patience and she had to make a conscious effort to not come across as condescending as if she knew best because as a native English speaker she was automatically an authority on it. Following a specific training meeting where her supervisor addressed the topic of writing in different discourse styles and cultural differences in expectations of writing, Andie admitted her own writing might be perceived by a different culture as poor. This perspective led Andie to setting a goal for herself of each year to grow her own skills and ability to support English language learners better.

I wonder if Daniel and Andie were not fairly evaluating their own abilities to effectively support EAL students and were feeling insecure because of how uncomfortable they felt during appointments. Both Daniel and Andie commented on their ability to read the reactions students had to the feedback they provided and how this reassured them they were communicating effectively. It is possible that with EAL

students these cues were more difficult to read due to barriers in communication resulting from the language gap. This might have led Daniel and Andie to doubt their ability and to feel uncertain about whether they were offering helpful feedback to the students. For example, in an earlier report, Andie shared a strategy she commonly used with EAL students that sounded very helpful. She encouraged EAL students to read anything of interest, be it blogs, magazines, or books, to familiarize themselves with other styles of writing. Andie felt this exposure would give the students “a sense of how one can convey themselves... and you can internalize some of those things.” Andie believed by reading samples of writing the EAL students would learn how to incorporate some of what they observed about styles into their own writing. Although Daniel did not provide additional information about why he felt ineffective with EAL students or further detail about any of the strategies he used with them, I wonder if the students would have felt he was more effective with them than he realized. How to work and communicate with EAL students differently than English speaking students could be a topic area for additional training for future writing assistants.

During the data collection phase of this project, writing assistants were asked to describe how they began appointments, what techniques they used to engage students in the review process and how they helped students develop stronger self-editing skills. Depending on the student and what their immediate writing support needs were, the writing assistants determined if it would be more helpful to provide local or global feedback in their review of the students’ work. They were also asked to comment on how they knew they were being effective. When discussing the value of the peer feedback experience, writing assistants reflected on their own skills development as reviewers and

writers. It appeared to be important to the writing assistants that the experience of working with students was personally rewarding.

Peer Reviewers Talk About Their Own Development as Writers

This section provides context to the reports writing assistants gave about how the training and experience of providing feedback impacted the development of their own writing skills. Writing assistants revealed the ways in which they applied the lessons they taught to students back to their own writing and revision processes and how they learned about the audience's perspective as reviewers. Additionally, writing assistants talked about the positive impact their role as a reviewer had on their confidence levels as writers and Andie shared some perceptive thoughts about the overall importance of giving and receiving feedback to her development as a writer.

Applying the Lessons Taught to Students to Their Own Writing

As part of their responses to the weekly questions and the focus group and interview, the writing assistants shared information about how they applied the lessons they were teaching to other students on writing skills to their own writing process and how they transferred the knowledge they gained as a reviewer to their assessment and review of their own work. The writing assistants improved the clarity and focus of their writing, their approach to writing, and their ability to stay organized by asking the same questions about their own papers that they asked of other students about their work. Writing assistants also reported they gained a better understanding of the audience perspective as a reviewer. It is clear from their reports that writing assistants developed their abilities as self-regulated learners because of providing feedback to their peers.

Writing assistants identified the formal and global elements of their writing were improved because of teaching students how to bring more clarity to the structural and conceptual components of their papers. In her appointments, Tango admitted she commonly talked to students about improving the clarity of their writing and the articulation of their ideas. She transferred this same attention for clarity to her own writing and found herself placing more emphasis on being clear and more to the point. Tango wrote, “I opt for succinct and logical progression of ideas. I enjoy revising the work of a student who has this style so I have implemented it in my own writing.” Tango described herself as being more cognizant of writing coherently and more mindful of grammatical errors in her own writing because of providing feedback to students about similar issues in their writing. Likewise, Scarlett identified that she applied some of the same lessons she taught to students to her own writing. “I commonly identify lengthy sentences as a problem for other students and by encouraging them to cut sentences into smaller pieces I have come to appreciate short meaningful phrases.” Scarlett wrote that her experience reviewing others’ writing improved her own lucidity and writing style and prompted her to write more focused and better-organized essays. Scarlett found the reading aloud strategy helpful to identify any awkwardly written or unclear sections in her work.

Additionally, we previously learned how Scarlett framed the feedback she provided to students by looking at the words, the sentences and the paragraphs. She told them, each word supports the sentence and each sentence supports the paragraph and each paragraph supports the essay. Scarlett wrote that after repeating this often to students it became “ingrained in me and I now write with that in mind.” Scarlett

identified very specific ways in which her approach to writing has been influenced by her experience as a writing assistant providing feedback to students about their writing.

Andie also talked about her experiences and how she applied her knowledge gained through training, the feedback she provided, and from the students she met in appointments, to her own writing process. She credited the training for teaching her more about grammar and sentence structure and commented that she was better able to identify run-on sentences that had too many prepositional phrases clouding her ideas. Providing feedback to students on similar issues raised Andie's awareness of the formal issues she found in her own papers.

Writing assistants also provided examples of how their approach to writing improved because of their roles as reviewers. When asked about the impact the role of reviewing had on his approach to writing, Daniel said, "Since becoming a writing assistant I find my approach to writing assignments has changed." When starting to write a paper, Daniel described he always prepared a thorough outline, broken down into sections with detailed notes in each and he would write the paper from start to finish looking at it piece. This changed because of his TA and writing assistant roles and Daniel started to write his papers by sections and not all at the same time. He noticed that by changing his approach from writing a paper all in one sitting to writing papers in sections he could develop his ideas more fully and his papers became better focused and more detailed.

Daniel's revision process was also impacted by his experience as a writing assistant. He described his initial goal as being to get all his ideas down on paper and then revise and edit his work. Daniel explained, "When revising, I always focus first on the

structure and organization of my ideas and I re-work my paper accordingly.” As Daniel looked over his work, he imagined he was the student having his work reviewed by a writing assistant and made edits based on what he thought would be identified as a weakness by the reviewer. Putting himself in the position of being reviewed allowed Daniel to use what he’d learned as a writing assistant and apply it to his own work.

Tango commented, because of reviewing the work of others, she approached the editing process of her own work more carefully and looked for proper capitalization and use of italics. Tango wrote, “The organization of my ideas and writing sentences that maximize the understanding of my writing is something I’ve also become more aware of.” Tango reported that by providing feedback to students and playing a role in their revision process, “I think it makes me appreciate the revision process a bit more. Now I see the benefits of revising things. Looking it over one day and giving it a break and looking over it the next day.” In her opinion, Tango’s increased appreciation for the revision process had a positive influence on the quality of her written work. Scarlett also admitted the experience of being a writing assistant taught her to approach writing essays more systematically, with deeper analysis in her arguments. Before being a writing assistant, her planning of an outline prior to beginning to write was vague, but, “after reading other students’ essays where it was clear there was no foundation and they were messy, it became clear to me that the outline provides the foundation that is needed.”

During appointments, writing assistants often asked students questions about the intended meaning of a sentence or paragraph to help them clarify an idea or to bring better organization to an argument. Andie confessed she enjoyed working with upper year students because they brought their own experienced perspective to their

appointments and tended to have higher level concerns about their assignments that Andie found informative for her own writing. These students conversed with Andie at higher intellectual levels about their ideas, explaining what they were trying to say and what their key argument in the paper was. This level of discourse motivated Andie and prompted her to apply some of the same questions she asked of students to her own work. Andie admitted, “I ask myself the same questions I ask them about what am I trying to say and am I using appropriate evidence to make an argument.” The questions she asked of students provoked Andie to think about whether she had done a good job of keeping her main point on track throughout her own paper.

Understanding the Perspective of the Audience

Another impact on writing assistants’ development was the role of reviewing their peer’ papers and taking the perspective of a reader who was seeking to understand what the writer was presenting. Writing assistants gained an appreciation of what it was like to be the audience for a written piece and they developed a stronger ability to write with the audience in mind. Tango expressed that being aware of how well she was writing for her audience was important and she said, “I want to ensure I have good transitional phrases and that I implement a degree of story-telling so readers can follow my train of thought.” Tango revealed she was always asking herself to evaluate whether the audience would be confused or misled by her writing.

Scarlett and Daniel both applied the concept of audience awareness to their approach of the revision process. Scarlett began to review her work a day or two after it was written and she often found new mistakes she did not see as she was initially writing it. Instead of reading it as the writer who knew what the intended meaning was, Scarlett

tried to read her own work as though she'd never seen it before and focused on the meaning she took from what was written. Daniel acted in similar ways and explained, "after completing a draft of a paper I take a step back and put myself into the reader's position, focusing on things I tell students to improve on." His objective during the revision process was to determine if his writing "is clear and accessible to someone with no background in philosophy and they could understand what I am saying—is it clear?" By putting themselves in the role of an audience member, writing assistants were better able to assess the effectiveness of their writing and messaging.

Increased Confidence as a Writer

Writing assistants all expressed high levels of self-confidence as writers when they entered the position and could identify constructive ways the position and process had increased their confidence and feelings of effectiveness over time.

Andie talked about her confidence and how it was affected by her role as a reviewer, helping other students. Andie wrote, "My confidence in my writing has been positively impacted by being a writing assistant. I am much better equipped to write and provide feedback because I've seen such a diverse range of topics being written about, styles of papers and approaches to writing that have made me a better writer and better editor." Andie could see her own path of development and improvement as a writer after working with students who were at a less advanced stage as writers, but were where Andie once was. Andie admitted she probably wrote much like many of the first-year students she saw in appointments and recognized that 8 years later she had improved as a writer. She described herself as being more comfortable as a writer and could see her own progress.

The significance of writers having confidence in their abilities is addressed by Zimmerman and Kitsantas (2002) when they connected self-efficacy with students' ability to become self-regulated writers. As a self-regulated writer, students are equipped with the necessary skills to monitor their own progress and "adapt their performance to changes in internal and external conditions" (Zimmerman & Kitsantas, 2002, p. 660). Something that helped Andie learn to adapt to internal and external conditions was her role and training as a reviewer. During her interview, Andie spoke strongly about the peer review process and its impact on her development as a writer. "I think providing and receiving feedback from others is crucial to developing as a writer. If we don't receive feedback from others we don't know if we are effectively conveying our ideas to them convincingly, comprehensively and clearly."

Andie believed that it was equally important to provide feedback to others as it was to receive it. She described providing feedback as an opportunity to learn and improve her own writing by reading the writing of others and gaining exposure to things others do well or identifying areas they could improve upon. She explained the benefits come "because you aren't just passively taking in how clearly something is written or what the problem with a piece is but you have to formalize it in a way to be able to communicate it to another person." Andie described using her critical analysis and problem-solving skills to actively attempt to understand what the student was trying to say in their paper. By using these cognitive skills and making suggestions to improve the work, Andie was developing her thinking skills. Becoming a stronger thinker with greater perspective about her work, Andie developed as a writer. Andie could take a more objective look at her own development as a writer after observing other students'

performances who were less experienced than she was. Andie was also able to put herself in the role of a student and wear the hat of a reviewer and apply her knowledge in that role to her own writing, as though she was reviewing another student's paper. Andie had confidence in her knowledge as a reviewer which helped her develop a higher sense of self-efficacy as a writer. In turn, this circled back to helping her develop her writing skills.

The training writing assistants received, and the experiences they had during meetings, had some very positive impacts on the development of their own writing skills. In their reports the writing assistants described how they applied the lessons they were teaching to their peers during feedback sessions to their own writing. Specifically, they realized they had improved elements of their own writing process; they became more aware of the perspective and understanding of a reader; and they approached the revision process with greater care and thought about what could be improved based on what they had learned about writing. Being a reviewer moves students further along the path to becoming self-regulated learners who experience higher levels of confidence and self-efficacy as writers.

Peer Reviewers Talk About Reviewing as a Social Activity

A less direct but highly impactful benefit of participating in the peer feedback process was the social aspect and relationship building writing assistants enjoyed with their peers. Several times during this study the writing assistants mentioned the social nature of providing feedback and the benefits of making shared connections with the students they were meeting with. The opportunity for interaction, sharing ideas, and having discussions about a piece of writing proved to be meaningful to the writing

assistants. This data relates closely to Nordlof's (2014) interpretation of Vygotsky's social constructivist approach combined with the ZPD to explaining learning. As Nordlof summarized, "it provides a perspective that actually explains the nature of student educational development and growth (in terms of internalization of socially learned concepts)" (p. 60). Writing assistants identified how the social aspect of the peer feedback process assisted them with their own learning and development as a reviewer and a writer.

Scarlett's responses throughout the study highlighted the value she placed on the social nature of the peer review process, particularly when she identified reviewing was, "a social way to apply my writing skills." Scarlett also commented that, "It's good when the same student comes back as you know you've helped them. You form a relationship." Scarlett wrote about the position of writing assistant being more engaging than the position of an editor because the work is "interactive and personal." This expression of engagement and interaction is significant as it reveals the importance of the peer review process having greater benefits when there is interaction and discussion between the reviewer and reviewee. For the same reasons Scarlett expressed, it was important to Andie to build collaborative relationships with the students during appointments. In that environment she found that she and the student demonstrated trust and respect toward each other which enabled them to exchange ideas and feedback positively and led to both students' growth as writers.

Tango described an interaction she had that took her beyond providing the normal boundary of feedback on the student's paper to feeling a need to support the emotional needs of the student as a writer. Tango was building a relationship with the student and,

as a result, wanted to extend herself to share her knowledge as best she could to help the student and felt a higher commitment to helping the student. According to Tango, the student she met with was already an accomplished writer. Tango did not feel she had any superior expertise or knowledge to offer that would improve the student's writing. Instead she led the student in a conversation about her own similar experiences and frustrations of having her work evaluated by someone who may not have understood and valued it appropriately. Tango intended this to be a way of providing comfort and reassurance to the student seeking help. It was the best type of support Tango could offer her new friend. Forming relationships and having shared connections with their peers was an important aspect of the feedback process as it contributed to writing assistants' sense of satisfaction and value that they had helped other students.

Peer Reviewers Talk About Reflection

Although this study did not set out to deliberately measure the value of writing assistants being reflective about their experiences with the peer feedback process, the nature of asking them to think and answer questions about their training and experiences with students naturally prompted a reflective thought process. This was another element that contributed to the development and growth of the writing assistants in their roles as reviewers.

In the focus group and interview, the writing assistants were asked if they had learned anything from participating in the study. Tango replied, "one of the things I learned from the questionnaires was to be more introspective about this experience altogether. A lot of times you go into the hour [of a meeting] and you don't really give much thought to it. But then you think about how it affects your own writing... it does

make you more self-aware.” Scarlett agreed with Tango’s comment by saying, “yeah, I found the reflection very valuable and more enjoyable than I thought I would. It has the potential to make you better at the position if you are more self-aware and more conscious of the things that you do and things that you experience as a writing tutor.” Both girls acknowledged how this increased self-awareness prompted a more deliberate and thoughtful approach to both their performance in the position and their own writing.

In her interview, Andie spoke enthusiastically about having participated in the study and commented, “it was actually kind of neat to reflect on my own experiences as a writing assistant. ... I think I realized even more how much it’s brought into my perspective on the writing process.” Revealing that it was a challenge to remember some of the specifics about the training or experiences she was asked to comment on, she remembered something else with a smile. Andie said, “I really enjoyed one of the questions where you asked about how I know whether I’m being effective. And I have been more conscious of that since. And in future appointments I thought about what I was using to judge whether the student seemed to be getting something out of the appointment.” In Andie’s case, the question about her effectiveness required her to reflect on the cues she received from students and raised her self-awareness of if she was being effective and providing helpful feedback. This self-awareness further motivated Andie to assess her helpfulness and intentionally work toward higher levels of effectiveness as she continued to meet with students. Reflective thinking was an unintended benefit in this study for the writing assistants and contributed to their raised self-awareness, motivation and effectiveness and is related to a study done by Boud (2001).

Writing assistants talk about their experiences being reflective about the review process in similar ways to Boud's (2001) study. Boud recognized two assumptions on which he based his model of reflection; he wrote: "all learning builds on existing perceptions and frameworks of understanding; therefore, links must be made between what is new and what already exists if learners are to make sense of what is happening to them" (p. 12). In this project, writing assistants acknowledged they took what they already knew about writing, combined it with their training and experiences and together these factors influenced their development as reviewers and writers further. The second assumption Boud described "is that the process of learning from experience is necessarily an active one, involving learners' engaging with the events of which they are a part of" (p. 12). Writing assistants were actively engaged in the review process by reading students' papers to dynamically understand the meaning of the writing and lead the students in a discussion to identify its strengths and weaknesses. Offering suggestions with a goal of improving the writing also required the writing assistant to be actively engaged.

Findings Summary

In this chapter we were introduced to Tango, Scarlett, Andie, and Daniel who volunteered in a university student support centre as writing assistants and whose roles were to review students' academic papers and provide feedback and suggestions to improve the writing. This project told the story of these writing assistants' perceptions, understandings, and observations about the training they received, the experiences they had and their own development as writers.

I noticed some consistencies among the four writing assistants that seemed to draw them to the position they volunteered for. All of them expressed a high level of

confidence as writers and one even commented that was in part what drew them to this position. They seemed to feel like they had skills and expertise to offer to other students and they all seemed to want to help their peers build their writing skills. A couple of the participants had previously held TA positions and they drew upon those experiences in their responses. These were all students who seemed to want to take on a leadership role amongst their peers to promote the greater good.

Some of the significant things the writing assistants revealed about the training they received included the strategies they learned for reviewing and providing feedback. This tied into their own development as writers as they employed some of the same strategies in their own writing processes. Examples of this include reading aloud, increased awareness of clarity and reviewing their paper using the eyes of a reader. Although the writing assistants perceived they received greater value from the experiences of reviewing than they did from their formal training, it was clear through analysis of their responses that they drew more from the training than they realized. The primary benefit of the training was that it prepared writing assistants with a foundation of skills, knowledge, and abilities they needed to be flexible in appointments by changing their approach to working with individual students during an appointment.

When the writing assistants shared their thoughts about what happened during their appointments with students and the value these experiences brought to them, they described the steps involved in reviewing and providing feedback to their peers, how they determined what to focus on in an appointment after assessing the student's needs and how the writing assistant determined if they were being effective as a reviewer. This section was valuable to further the understanding of the impact the writing assistants'

experiences had on their development as a reviewer and a writer. Each of the writing assistants had developmental goals they hoped to gain from their experiences. Some wanted to practise the skills of teaching others while others wanted the personal enjoyment of helping their peers succeed. Another important impact of their experience was learning how to review a piece of writing at the local and global levels, and in doing so, develop an understanding of how global revisions improve the quality of writing more significantly than local level revisions. Feeling like they were positively impacting their peers and helping them improve their writing was important to the writing assistants and they intentionally sought feedback from the students to ensure they were achieving this goal.

All the writing assistants presented themselves to be strong writers prior to becoming a writing assistant but they were still able to identify tangible ways in which their own writing skills improved because of the training and experiences they had in their roles as peer reviewers. They could be reflective in their practices and apply some of the same lessons or ask the same questions of themselves as they were using in appointments with other students. Writing assistants gained an appreciation of viewing their own work as though they were a reader of it, not the writer, and reviewed it to ensure the audience would understand their intended meaning.

It was interesting to read the writing assistants' subtle comments about how the peer review process is a social activity and the benefits that came with that. This was an underlying theme that has greater significance to the discussion section of this study.

CHAPTER FIVE: DISCUSSION, SUMMARY, AND IMPLICATIONS

Teaching students how to write well is a critical issue at the postsecondary level of education and in large classes structured in lecture format it can be difficult to provide opportunities for writing with adequate feedback and assessment processes in place. Therefore, it is important to look for alternative methods that give students writing practice and a chance to develop their knowledge and expertise as writers and to prepare them with communication skills needed to be successful in the workplace and in life. Many students who receive training on the peer review process and have an opportunity to participate as reviewers in a peer review process, develop stronger writing skills and submit higher quality papers (Berg, 1999). The results of this study support the practice of implementing the peer feedback process in postsecondary courses as a strategy for developing writing skills.

In this study I set out to learn more about the impact of training and the encounters students have in their roles as student reviewers providing feedback on the writing of their peers. I invited a group of students who volunteered as peer reviewers in a university writing centre and asked them 11 questions over the span of 2 months that required them to reflect on the impacts of their training and experiences, and respond in writing with their thoughts. I organized a follow up focus group that two of the participants attended and a third participant requested an individual interview instead. Throughout the data collection phase I gathered my own thoughts, reactions, and questions in a researcher journal. The biweekly questions and follow-up discussions were intended to reveal how training on the peer feedback process, and reviewing their peers' work, influenced the development of the reviewer's own writing skills. The three guiding

research questions were focused on how the training reviewers received impacted both their ability to be effective reviewers and their own writing skills development, as well as how the experience of being a reviewer affected their development as a writer. The motivation behind this study was to learn more about how the peer feedback process could be used to develop writing skills with post-secondary students.

The literature presented many interesting perspectives and thoughts about the benefits of the peer feedback process that became relevant in reviewing the data collected in this study. Considering the benefits to the reviewer, there is research evidence supporting improved writing skills and performance outcomes (Althausser & Darnell, 2001; Cho & Cho, 2011; Nilson, 2003; Tsui & Ng, 2000). There is less documented research on the impact of training students on the peer feedback process (Min, 2006). This study adds to the research by examining student reviewers' perceptions of the training they received by prompting students to reflect on their experiences as reviewers; and by connecting the training process, along with the experience of being a reviewer, to their own learning and development as writers.

This chapter discusses the findings and highlights the significance of the data. It begins with a review of the theoretical framework, relating it directly to the findings of this project, drawing a connection between the peer feedback process, scaffolding, and the ZPD. Delving deeper into the discussion, it circles back to how the peer feedback process provides reviewers with scaffolding, not just the students who participate in it. In considering the research questions, the discussion addresses how training prepares students to be effective reviewers and writers and how the experience of being a peer reviewer helps the reviewers develop their writing skills. This chapter also includes the

implications for practice, limitations of the study, and recommendations for future research.

Discussion

To better understand the significance of this study and the role of the peer feedback process as a developmental learning tool, I turned to an essay written by Nordlof (2014) whose purpose was to present “a broad theoretical perspective in writing center work that simultaneously contextualizes tutoring practices and complements research agendas” (p. 45). Nordlof was interested in furthering the idea of student learning by framing it in the context of growth using Vygotsky’s idea of the Zone of Proximal Development (ZPD) and the concept of scaffolding, as illustrated by Wood et al. (1976). The concepts of the ZPD and scaffolding promotes the opportunity for learning by a novice who has the support of an expert. The expert identifies the ability of the learner to perform within their own knowledge base and supports them in extending that learning beyond their own scope, thus stretching the limits of their ZPD.

The Peer Feedback Process, Scaffolding, and the ZPD

Because of my findings, I suggest that the peer feedback process provides the necessary scaffolding to support the growth and development of the reviewers while they are actively scaffolding the learning of other students. As Lam (2010) concluded in his study, “Trained peer review activity is an organic learning activity that supports students in developing writing abilities interactively, as well as empowering them to participate actively in the wider learning community” (p. 124). Writing assistants used strategies they learned during training and offered feedback to improve their peers’ writing providing support, or scaffolding, as an expert. While the writing assistants were

scaffolding the learning of their peers, this very process was also a scaffold to the writing assistants' own learning and helped expand their ZPD by advancing the development of their writing skills. Nordlof (2014) wrote, "Connecting back to Vygotsky, scaffolding might be a metaphor to describe the approaches tutors might take to help students reach the limits of their zones of proximal development" (p. 56). I am extending Nordlof's thought further by suggesting the act of scaffolding students' learning during the peer feedback process was offering scaffolding support for the reviewer's learning at the same time.

By participating in the training process, engaging in the analytic review of students' writing and delivering feedback on their peers' papers, writing assistants admitted to reflecting upon their own writing practices and applying the lessons they were teaching to others to their own writing and editing processes. They were providing expert support to themselves through the course of supporting others. Writing assistants incorporated the same strategies and aspects of the feedback they offered to others into their own writing, thus stretching the limits of their ZPD and furthering their growth and development as writers.

The peer feedback process provides scaffolding to reviewers. During their appointments, writing assistants were able to critically read and analyze the writing of their peers and provide feedback that was intended to improve the writing. In-person appointments also offered opportunities to teach students how to critically examine and edit their own writing (Lundstrom & Baker, 2009). The actions of the writing assistants were important to their own learning because reading and actively seeking to understand the meaning and ideas being written about, while examining and questioning the writing

they were reviewing, prompted the writing assistants to dialogue with their peers. This level of inquisitive discourse and interaction is important to the reviewer's learning process as the practice of asking questions, probing for information and providing suggestions leads to an enhanced level of engagement and reflective thinking. In his study promoting the value of dialogic feedback, Nicol (2010) declared:

Just as learning does not occur through the mere transmission of written or spoken information, nor does feedback delivery on its own lead to learning improvement. For students to learn they must do something with transmitted information, analyse the message, ask questions about it, discuss it with others, connect it with prior understanding and use this to change future actions. The same is true for feedback comments. While the quality of the comments is important, the quality of the students' interaction with those comments is equally, and perhaps more, important. (p. 503)

In this study, writing assistants described their interactions in appointments with students in the same ways as Nicol (2010) says are important. They were analyzing what they read, asking questions, and discussing it with the student writer and making connections with it to their own writing and writing processes.

In addition to asking students about their intended meaning, suggesting changes to improve the clarity of sentences and re-organizing paragraphs to better support the thesis statement, writing assistants admitted to comparing the work they reviewed to their own writing and drawing contrasting judgements between the pieces. It is this comparison process that stimulates connections with their own work and allows writing assistants to make meaning of what they are observing and learning about writing in a more personal

way. Nicol et al. (2014) had a similar finding and discussed the significance of this trend. They wrote:

Students reported that reviewing involves a comparative process wherein they evaluate each peer assignment against an internal representation of their own work. According to students, this comparison triggers a reflective process, where they use the feedback they generate for others to update their thinking about their own assignment. (p. 116)

Nicol et al. made the point that by learning to make evaluative judgements about other students' work, student reviewers developed critical thinking and reflective skills which positively affected their ability to produce high-quality written work. This premise is supported by Sadler (2010) who argued that in the same way instructors learn to evaluate and understand the criteria of what qualifies as quality writing, so do student reviewers when they are involved in the evaluative process of assessing and providing feedback on their peer's work. Nicol and Sadler are making the point that by putting themselves in a role of teaching others and assessing the work of their peers writing assistants were naturally influenced as writers by differentiating between higher and lower quality examples of writing and became better evaluating the quality of their own work.

Based on the reports writing assistants offered, they all perceived their greatest learning came from the experiences of meeting with students and performing the functions of a peer reviewer. These functions included critical analysis, discussion with the student, constructing feedback and evaluating the work they read. These activities helped writing assistants advance their own writing skills such as deliberately looking for awkward or long sentences after providing feedback to students about this issue, or

learning to develop a well-organized outline of a paper in advance of writing it to provide better focus and clarity of ideas. As Nicol (2010) found, “producing feedback is more cognitively demanding than just receiving it: the construction of feedback is likely to heighten significantly the level of student engagement, analysis and reflection with feedback processes” (p. 514). Nicol’s findings and the reports of the writing assistants both substantiate the belief that reviewers benefit as writers from their role as a reviewer by engaging the reviewers in higher level thinking and reflective skills. Writing assistants’ accounts of their experience described how they internalized aspects of what they observed and learned about other students’ work and how these lessons became meaningful to their own writing processes. Like Nordlof (2014) suggested, as the writing assistants began to understand the relevance of what they were coaching other students about to their own work, it became more meaningful in a personal way and it began to direct their own approach and work as a writer. The experience of being a reviewer allowed writing assistants to support their own learning, acting as a scaffold to themselves and extending their own ZPD.

Training Prepares Students to Be Effective Reviewers and Writers

In considering the first two research questions of this study the findings of this study show that training writing assistants on the peer review process helped prepare them to be more effective reviewers and had a positive impact on the development of their writing skills. Training, in this project, included the initial training day program held in August and the regularly scheduled training meetings facilitated by the program supervisor. Lam (2010) observed from his participant comments that students who were trained to be critical about the writing of their peers became even more critical of their

own writing when “they were able to internalize the editing and revising skills acquired in the peer review training workshop” (p. 120). In this study, I observed a similar trend with training have primary and secondary benefits to reviewers.

The reports from writing assistants initially revealed a shared perception that the training they received on the peer feedback process was less valuable than the experiences they had meeting with students and providing feedback directly. After probing this question more deeply in the email questionnaires, focus group, and interview, and taking a closer read of the data, I observed that the writing assistants were describing value from the training that was not directly obvious to them. It became clear after re-reading the participants’ responses, and seeing connections between what was being said among all four participants, that the writing assistants were describing how the training provided them with the necessary information to be effective reviewers and to improve their own writing projects.

Ineffectiveness of training. It is important to acknowledge that writing assistants all felt their training was ineffective to some degree and their experiences were more helpful in preparing them for the role of reviewer. In a qualitative study, participant perception is very important and relevant to the analysis. Some of the writing assistants had previously held teaching assistant positions where they had been expected to support students’ writing skills without any formal training. They felt in these situations they had been successful in achieving their goals and were able to adequately evaluate students formatively. Other writing assistants expressed high levels of confidence in their writing skills and did not believe they entered the position with a relatively high level of knowledge about writing skills already.

Effective reviewers. A direct benefit the writing assistants attributed to the training was it taught them technical terms and structural rules of writing composition, making it easier to identify these issues in students' writing samples and to talk about them knowledgably as peer reviewers. Min (2005) found that trained reviewers could provide students with clear explanations of the problems in their papers and to provide specific suggestions that were helpful for making revisions. The skill of clearly explaining and communicating with students about the weaknesses in their writing and offering ideas to strengthen it made the reviewers more effective as tutors. Despite two contradictory reports, writing assistants reported that their knowledge of the technical terms for issues in the writing assisted them in explaining to students what the problem was and how to fix it. The training gave them the language to use when identifying a problem or weakness and taught them approaches, such as reading out loud, that helped teach students to identify the issues in their own papers. Identifying grammatical errors and long, awkwardly written sentences were other common problems writing assistants provided feedback on and considered when revising their own work. Training developed the writing assistants' expertise as reviewers and helped them to better support students in learning to improve their writing skills.

Training also taught skills and strategies that made the writing assistants more agile and analytical thinkers who can form effective feedback and ideas for improvements to the writing under review. Min (2005) wrote about the importance of intervention and support from a skilled and knowledgeable tutor and found in his study that "with proper training, student reviewers exhibited many constructive patterns of interaction and were capable of providing scaffolding that is considered critical for

development to writers” (p. 305). Min (2005) felt training should teach reviewers cognitive behaviours including, “reading, questioning, pointing to trouble sources, discussing ideas” and scaffolding behaviours, such as “explaining, instructing, giving specific comments” (p. 305). In this study, writing assistants engaged in these same behaviours, demonstrating their ability to provide appropriate scaffolding to the students they met with.

For example, at the start of each appointment writing assistants began by assessing students’ immediate needs, what stage of the writing process they were at and what the students’ level of learning was to determine what approach would be most effective. In following these steps, writing assistants were determining what the students’ ZPD was and how best to support the students’ learning. All four of the writing assistants began appointments by asking students what they wanted to focus on most, or what their goal for the session was. The writing assistants were trying to establish what the student defined as the purpose of the meeting.

Depending on what the student identified, it provided information to the writing assistants about how to focus their attention and feedback. Some students demonstrated a need for structural and surface level support, which was an indication to the writing assistants that the student might be a novice writer or an EAL learner whose writing skills were less advanced. Other students indicated confidence in their writing skills and were seeking feedback that would enhance their analysis and organization of ideas at a more global level. Training taught the writing assistants how to open the communication lines during a meeting with a student by involving them from the start in setting the agenda for the meeting. Training also taught writing assistants what the difference was between local

and global feedback and how each type had a place in the review process. Understanding the students' goals and needs was important to knowing how best to scaffold their learning. Berg (1999) and Rahimi (2013) both found that with training, reviewers shifted their focus from considering the formal aspects of the writing to providing a higher incidence of global level comments. This took the feedback to the level of meaning-making which, when implemented, resulted in higher-quality writing.

In this study, writing assistants acknowledged that although in some cases it was more helpful to an individual student to provide feedback on their grammar and composition (formal aspects), they understood the importance of also providing feedback about the overall structure, ideas, and analysis of the paper (global aspects). Regardless of the focus the appointments took, writing assistants had to make judgements and critically analyze the writing they were reviewing to be able to provide relevant feedback on it and they relied upon the training to provide the knowledge and skills needed to perform these functions.

Effective writers. A secondary benefit to the training was how the writing assistants applied the knowledge gained during the training to their own work after providing feedback on the work of their peers. Cho and Cho (2011) claimed that reviewers who gave comments that focused on the global level of writing revised their own work at the same level which made their writing more meaningful and improved the quality of the written product. Tango and Scarlett recognized that after providing feedback to students on improving the clarity of their ideas, they paid more attention to this detail in their own papers and revised improve the clarity of their writing. Scarlett commented that after observing student papers that were disorganized, she was more

conscious in her own approach in preparing a more organized outline that had a strong foundation on which to build her papers. Andie also experienced a positive impact on her revision process as she discussed asking herself the same questions about her intended meaning as she asked of students. As Lui and Carless (2006) suggest, “The conceptual rationale for peer assessment and peer feedback is that it enables students to take an active role in the management of their own learning. It is an element of self-regulated learning by which students monitor their work using internal and external feedback as catalysts” (p. 280). In other words, training acts as an external stimulus with the act of reflection being an internal stimulus and put together, these functions helped writing assistants manage their own learning and development as writers.

The Experience of Being a Peer Reviewer Helps Develop Writing Skills

In considering the third research question of this study, writing assistants also saw value in the experience of the peer feedback process for its positive impact on their own writing skills in some very practical ways. However, a deeper look at their reports and responses also revealed an impact on their cognitive abilities which bears significant relevance to the higher goal of learning and developing students’ writing skills.

Practical impacts. By reviewing a variety of styles of writing and student papers that were strong and others that needed improvement, writing assistants could observe and understand the elements of quality writing as compared to weaker examples. Being in the position of examining students’ papers and assuming the role of a reader, writing assistants learned to read their own work using the lens of an audience member and attempted to anticipate what a reader might perceive the meaning of their writing to be. An example was how the writing assistants reviewed their work after some time had

passed. By reading their work over a day or two after they first wrote it separated their role as a writer from that a reader and allowed them to read it using a different perspective like that of a new reader. Writing assistants also made a deliberate attempt to read their own work using the perspective of someone with no prior knowledge of the subject they were writing about to check their language and ideas were easily understood and accessible by the audience they were writing for. By looking at their own work through the eyes of an audience member, writing assistants could be more objective about making edits to improve their work.

Cognitive impacts. Writing assistants in this study shared examples of how they were reflective about their experiences as a reviewer and took the feedback they offered to students and utilised it during their own writing and editing processes. Several writing assistants also talked about the skills they were developing, which included critical thinking, editing, and revising and communication skills, along with the ability to be flexible in their approach with students. Rollinson (2005) examined the benefits of a peer feedback process to the EAL classroom and found that “by giving the students practice in becoming critical readers, we are at the same time helping them towards becoming more self-reliant writers, who are both self-critical and who have the skills to self-edit and revise their writing” (p. 29). This same concept can be applied with non-EAL students. Noroozi, Biemans, and Mulder (2016) found that student reviewers used analysis and evaluation skills which led to better written arguments in their own essays. Liu and Carless (2014) experienced similar results and described reviewers as developing “skills such as critical reflection, listening to and acting on feedback, sensitively assessing and

providing feedback” (p. 289). Using these skills prompted the reviewers to learn by reflecting on and justifying what they had written or suggested to others.

Writing assistants in this study expressed an appreciation for having an opportunity to develop skills needed to tutor their peers in producing high quality academic papers and saw their role as a reviewer as a chance to develop their own skills around providing instruction. Some wanted to teach and another wanted to be an editor. They expressed value in the process of reflecting on their experiences and realized it prompted them to think about the impact their role as a reviewer was having on them directly. As Nicol et al. (2014) asserted, “students’ own accounts suggest that reviewing is especially effective in triggering some powerful mental processes, including critical thinking, the active interpretation and application of assessment criteria, reflection and learning transfer—processes that are normally associated with high levels of academic achievement” (p. 112). Writing assistants participating in this study expressed similar notions of exercising such cognitive processes and experiencing the benefits of enhanced intellectual skills.

Summary

What began as a volunteer experience, intended to serve both personal and developmental needs for the writing assistants, became an opportunity to learn and grow in ways they did not intend or anticipate. Writing assistants were oriented into their roles with a formal training program followed by regularly scheduled meetings that included topical discussions. They met with students and made initial assessments about each student’s level of writing competency and goals for the meeting. Writing assistants assessed the students’ ZPD to determine an appropriate approach and level of support

that was needed. The writing assistants made judgements about how to properly scaffold each student to ensure they would achieve a suitable level of learning and growth and then engaged in discussions based on their critical reading and analysis of the student's paper. Over time and with experience, the writing assistants began to internalize the lessons they were teaching others and considered how to apply their commonly offered feedback and lessons to their own writing.

This shift showed the writing assistants acting as experts for themselves, providing guidance and support to their own learning process by calling upon their training and experience as scaffolds. Writing assistants transferred their new knowledge about high quality writing skills onto their own work as writers. As Nicol et al. (2014) noticed, "In reviewing, students construct feedback 'meanings' for themselves as they produce it for others; that is, the catalyst for meaning construction is not an external input, rather it is an input generated directly by the students themselves as they engage in making critical judgements" (p. 118). Interpreting this idea in the context of this study, the scaffolds the writing assistants provided to others became scaffolds for themselves and the peer review process can be considered an instrument for teaching writing skills.

Implications for Practice

In Chapter 1 of this project I introduced the idea of using the peer feedback process in a classroom to teach students better writing skills while taking advantage of the available resources found in the students themselves. I believe the findings of this research study support the idea that by training students on the peer feedback process and designing a process of pairing students in a class to exchange their writing and provide feedback to each other, the quality of writing will improve for most students. This study

has demonstrated that training students on the peer review process brings benefits of learning strategies for reviewing and identifying weak areas in a piece of writing learning about the technical and mechanical aspects of writing such as grammar, and building collaborative relationships that lead to dynamic discussions about writing. This study also demonstrated the value of experiencing the peer feedback process as a writer and as reviewers. Reviewers learned to apply the same lessons they taught to students to their own writing process and to ask the same questions about their own writing as they did that of their peers. Reviewers developed higher levels of confidence in their abilities as reviewers which positively impacted their confidence as writers. The findings of this study firmly support the benefits of the peer review process and encourage its use in post-secondary classrooms.

This promotion of the peer feedback process could, at a glance, seem simple and relatively easy to implement. However, as was demonstrated in the literature review, there are considerations to be made for the process to be received well by the students and to make it more effective. For students receiving feedback to trust in the process and for students providing feedback to be knowledgeable enough to do it, students must all be trained on the process and the skills needed to participate effectively. Berg (1999) summarized an accepted thought by writing, “the consensus among researchers of native speaker peer response to writing seems to be that carefully planned peer response sessions, together with appropriately prepared students, will result in better student writing” (p. 218). Berg’s reference to preparing students for peer review means training them on the process, however, there remains varied thoughts amongst researchers as to what the most effective content of a training program should be. Knowing what to put in

the training would require a needs assessment and research into best practices for this type of training as I did not address this during the project. In addition to preparing students to participate in the peer feedback process, they must also be supported throughout the process. Understanding how to manage this support and what to have prepared in advance could be a challenge to an instructor who is not familiar with the research surrounding the peer feedback process.

Limitations of the Study

In this study, I used a sample of convenience because it offered suitable participants but also because the participants were accessible. Although the benefit to studying a group of students who were already practicing as reviewers meant they had a body of experience to draw upon, the disadvantage was there was no opportunity for me to influence the training program they participated in. Yet training was a focal point of this study leaving me to wonder if I had been able to help design the training, would it have changed the outcomes?

Another limitation was the small sample size, with only four participants being recruited. Reports from such a small group are difficult to generalize to the larger population and provide a limited amount of data to analyze, although the richness and personalized nature of the data in a qualitative study provides compensation for the small sample size. Within the four students, there were limitations in the diversity they brought be it their experience, their perspectives and their exposure within their environment. All four came from the same writing centre and received the same training program creating a more homogenous sample than might have otherwise emerged if the study had a

broader area to recruit from and greater resources on which to draw to make the study larger.

Completing the study within a 6-month period and restricting data collection to 3 months was limiting in a similar way to the small sample size in that a restricted amount of data was collected in that short period. Communication was also restricted to the four participants and no inquiry was made with university instructors who may have shared additional information and perspectives on the research if asked. As a result, these findings are restricted to this specific project with the ability to broadly guide future research projects.

If I had the flexibility and resources to implement this study differently, I would choose to influence the training program and design it based on best practices taken from the literature and results of a needs assessment I would administer with the existing peer review volunteers in the program.

Future Research

My recommendations to future researchers are to expand the study of the peer review process to include a focus on the training program content and structure; to design a study that recruits a larger, more diverse group of participants; and to include an examination of the relationship between the peer feedback process, reflective practice, and the development of writing skills, expanding upon the brief mention I gave to this as part of this study.

Firstly, another study could focus on learning what topics need to be addressed as part of the content of a training program to most effectively train students as providers of feedback and receivers of feedback. It could also consider how to design a training

program that would maximize the opportunities for learning throughout the process of providing feedback to peers and teaching reviewers how to be more aware of the potential impacts on their own development. Despite the agreement that training is important, few studies focus on the training content and delivery details.

Secondly, future researchers could address this research topic on a grander scale and seek to recruit a larger number of participants who have a more diversified background. For example, they could reach out to more than one institution from which to find participants. Researchers could look at institutions that have varied demographic characteristics with the hope of finding participants with different types of backgrounds and experiences that might influence their experiences with the peer review process. Extending the recruitment of participants might offer an opportunity to draw more generalized outcomes that could be applied to a broader population.

Thirdly, the findings of this study revealed an unanticipated, yet significant factor in student reviewers' development and growth as writers was the process of reflection they naturally experienced through completion of the questionnaires. Students admitted the act of reflecting upon the things being asked about helped them to better understand the impacts they were experiencing or could deliberately affect by using what they were learning as a reviewer for others back onto themselves. Designing a study that intentionally set out to measure the impacts of a reflective activity built into the peer feedback process could influence the positive impacts we already know students experience in more intense and intentional ways.

I believe designing a training program with three primary elements could very effectively establish a peer feedback process that could serve as a model for

implementation. The first element of training should teach students about the value of the peer feedback process and how to offer and receive feedback in productive ways. The second element of training should provide specific skills training that includes how to assess the formal mechanics of writing in addition to the global issues of ideas, arguments, and organization. The third element of training should be reflective components that will help the reviewers better understand what they are learning about the writing process and how to transfer that knowledge to their own writing. Like in the case of the writing assistants, building in a reflective component to the training increases the opportunity for reviewers to receive the benefits of scaffolding through their participation in the feedback process.

Final Thoughts

As I approached the end of this project and thought about how much time I spent on it and how much time is available for me now it is finished, I expected to feel a sense of relief and resolution. I thought it would feel like the project was complete and that it had an ending. Instead it feels like a beginning. I have taken just a brief look into the peer feedback process and as I gaze beyond the work I have done I see great potential to learn even more if I could only ask just one more question and talk to one more student. During the data collection phase, I experienced a contrasting pull between not feeling like I had enough questions to ask the participants and at the same time feeling like there were so many topics and tangents to inquire about with not enough time to cover everything that was of interest to me. The process of research has proven to be an endless journey and although I am sure this is the finale of my formal education, I realize there is a part of me that is firmly committed to the concept of lifelong learning. My 25-year career in the

postsecondary environment has influenced me to believe in the value of research and the exhilaration of discovery as an ever-evolving society.

I believe the peer review, or the peer feedback, process has great potential to help students learn how to be better writers and how to critically analyze their own thoughts and compositions. Nicol (2010) represented a parallel argument. He wrote that involving students in dialogic peer critiquing processes “result in students taking more responsibility for, and a more active role in, monitoring and evaluating their own learning; and that there would be significant long-term benefits from such changes in relation to the development of important skills for learning at and beyond university” (p. 515). Studying writing assistants and learning more about their experiences as providers of peer feedback lends support to the idea that the peer feedback process has the potential to be used in a classroom setting to promote the development of writing skills if the process is planned, designed, and implemented thoughtfully with intentional outcomes. I was most profoundly impacted by the comments Andie made during her interview about how she felt the experience of being a reviewer and provider of feedback to other students had been the most influential element in her learning about writing skills and her development as a writer. This reminded me of what I had read in an article from Caffarella and Barnett (2010) who found that students felt “the critiquing process was perceived as the most influential element in helping them to understand the scholarly writing process and producing a scholarly product” (p. 48). Andie’s expression mirrored this quote and was, in part, what prompted me to frame my thoughts and analysis of what the reviewers were reporting about the peer feedback process as being a form of scaffolding back to themselves in a circular kind of way.

I found it very interesting mid-way through the data collection phase to read the reports that writing assistants did not place as much value in the training as I originally anticipated they would. Late in March, as I read over selected articles looking for something that would help me make sense of this trend, I made a note in my journal about the Rahimi (2010) article that only appeared important as I gathered my final thoughts. Throughout the project I struggled with how to establish a theoretical framework and it only became clear to me toward the end of the data collection. In the Rahimi (2010) article, I noticed he chose to use the sociocultural theory to support his research on the peer feedback process, suggesting students are first regulated by others through their interactions with them and over time students become more independent and self-regulated. My note explained my interpretation of this thought in the context of this research project. I understood that reviewers were trained and supported by the experts providing them with training and as they supported their peers, they began to build their own increased level of expertise. My next step was to revisit the Althauser and Darnall (2001) article that I originally thought would serve as my theoretical framework. At this point in the process, however, it was losing its relevance for me and I started a new search for a guiding theory. With a simple shift in my search, the Nordlof (2014) article appeared and brought it all together for me. My thoughts about Rahimi (2010), my understanding of Althauser and Darnall (2001), and the approach Nordlof (2014) took all came together in a magical way and my own thoughts about my research had new meaning.

This was a learning moment for me as I applied my new thoughts to what I believed the writing assistants were describing about the value of training. My belief that

the students were getting more from their training than they realized developed into an idea that could be explained. The training had greater meaning when it was considered in combination with their experiences and together these elements provided a scaffold and advanced the reviewers progression toward being independent editors and revisers of their own work. Other researchers described as student reviewers providing expert support and scaffolding to their peers. I described the training reviewers received and their experiences providing support to their peers as a scaffold for their own learning and development. I can only hope my work on the peer feedback process catches the interest of just one educator in the position of testing it out in a classroom and finding success with it.

The research process can be a very exciting and stimulating one when connections are made and are insightful and important. Conducting this project has given me this experience and I hope this work will be of interest in future and the ideas I presented will be more fully developed and noticed in the educational setting.

References

- Al-Busaidi, Z. (2008). Qualitative research and its uses in health care. *Sultan Qaboos University Medical Journal*, 8(1), 11-19. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3087733/>
- Althausser, R., & Darnall, K. (2001). Enhancing critical reading and writing through peer reviews: An exploration of assisted performance. *Teaching Sociology*, 29(1), 23-35. doi:10.2307/1318780
- Ashbaugh, H., Johnstone, K. M., & Warfield, T. D. (2002). Outcome assessment of a writing-skill improvement initiative: Results and methodological implications. *Issues in Accounting Education*, 17(2), 123-148. doi:10.2308/iace.2002.17.2.123
- Baker, K. M. (2016). Peer review as a strategy for improving students' writing process. *Active Learning in Higher Education*, 17(3), 179-192. doi:10.1177/1469787416654794
- Bellamy, K., Ostini, R., Martini, N., & Kairuz, T. (2016). Seeking to understand: Using generic qualitative research to explore access to medicines and pharmacy services among resettled refugees. *International Journal of Clinical Pharmacy*, 38(3), 671-675. doi:10.1007/s11096-016-0261-1
- Berg, E. C. (1999). The effects of trained peer response on ESL students' revision types and writing quality. *Journal of Second Language Writing*, 8(3), 215-241. doi:10.1016/S1060-3743(99)80115-5
- Boud, D. (2001). Using journal writing to enhance reflective practice. *New Directions for Adult and Continuing Education*, 2001(90), 9-18. doi:10.1002/ace.16

- Caffarella, R. S., & Barnett, B. G. (2000). Teaching doctoral students to become scholarly writers: The importance of giving and receiving critiques. *Studies in Higher Education, 25*(1), 39-52. doi:10.1080/030750700116000
- Carr, L. (1994). The strengths and weaknesses of quantitative and qualitative research: What method for nursing? *Journal of Advanced Nursing, 20*, 716-721. doi:10.1046/j.1365-2648.1994.20040716.x
- Chittum, J. R., & Bryant, L. H. (2014). Reviewing to learn: Graduate student participation in the professional peer-review process to improve academic writing skills. *International Journal of Teaching & Learning in Higher Education, 26*(3), 473-484. Retrieved from <http://files.eric.ed.gov/fulltext/EJ1060832.pdf>
- Cho, K., & MacArthur, C. (2010). Student revision with peer and expert reviewing. *Learning and Instruction, 20*(4), 328-338. doi: 10.1016/j.learninstruc.2009.08.006
- Cho, K., & MacArthur, C. (2011). Learning by reviewing. *Journal of Educational Psychology, 103*(1), 73-84. doi:10.1037/a0021950
- Cho, Y. H., & Cho, K. (2011). Peer reviewers learn from giving comments. *Instructional Science, 39*(5), 629-643. doi:10.1007/s11251-010-9146-1
- Cho, K., & Schunn, C. D. (2007). Scaffolded writing and rewriting in the discipline: A web-based reciprocal peer review system. *Computers & Education, 48*(3), 409-426. doi: 10.1016/j.compedu.2005.02.004
- Crossman, J. M., & Kite, S. L. (2012). Facilitating improved writing among students through directed peer review. *Active Learning in Higher Education, 13*(3), 219-229. doi: 10.1177/1469787412452980

- Diab, N. M. (2011). Assessing the relationship between different types of student feedback and the quality of revised writing. *Assessing Writing, 16*(4), 274-292. doi: 10.1016/j.asw.2011.08.001
- Dempsey, M. S., PytlikZillig, L. M., & Bruning, R. H. (2009). Helping preservice teachers learn to assess writing: Practice and feedback in a web-based environment. *Assessing Writing, 14*(1), 38-61. doi: 10.1016/j.asw.2008.12.003
- Ferber, R. (1977). Research by convenience. *Journal of Consumer Research, 4*(1), 57-58. doi:10.2307/2488636
- Ganga, D., & Scott, S. (2006). Cultural “insiders” and the issue of positionality in qualitative migration research: Moving “across” and moving “along” researcher-participant divides. *Forum: Qualitative Social Research, 7*(3), 1-12.
- Gere, A. R. (1990). Talking in writing groups. In S. Hynds & D. L. Rubin (Eds.), *Perspectives on talking and learning* (pp. 115-128). Urbana, IL: NCTE. Retrieved from <http://files.eric.ed.gov/fulltext/ED318076.pdf#page=119>
- Gere, A. R., & Abbott, R. D. (1985). Talking about writing: The language of writing groups. *Research in the Teaching of English, 19*(4), 362-385. Retrieved from <http://www.jstor.org/stable/40171067>
- Hanjani, A. M., & Li, L. (2014). Exploring L2 writers’ collaborative revision interactions and their writing performance. *System, 44*, 101-114. doi: 10.1016/j.system.2014.03.004
- Hawe, E. M., & Dixon, H. R. (2014). Building students’ evaluative and productive expertise in the writing classroom. *Assessing Writing, 19*, 66-79. doi: 10.1016/j.asw.2013.11.004

- Hobson, E. H., & Schafermeyer, K. W. (1994). Writing and critical thinking: Writing-to-learn in large classes. *American Journal of Pharmaceutical Education*, 58(4), 423-426. doi: aj5804423.pdf
- Kram, K. E., & Isabella, L. A. (1985). Mentoring alternatives: The role of peer relationships in career development. *Academy of Management Journal*, 28(1), 110-132. doi:10.2307/256064
- Lam, R. (2010). A peer review training workshop: Coaching students to give and evaluate peer feedback. *TESL Canada Journal*, 27(2), 114-127. doi:10.18806/tesl.v27i2.1052
- Lea, M. R., & Street, B. V. (1998). Student writing in higher education: An academic literacies approach. *Studies in Higher Education*, 23(2), 157-172. doi:10.1080/03075079812331380364
- Lester, S. (1999). *An introduction to phenomenological research*. Taunton UK: Stan Lester Developments. Retrieved from <http://www.rgs.org/nr/rdonlyres/f50603e0-41af-4b15-9c84-ba7e4de8cb4f/0/seaweedphenomenologyresearch.pdf>
- Li, L., Liu, X., & Steckelberg, A. L. (2010). Assessor or assessee: How student learning improves by giving and receiving peer feedback. *British Journal of Educational Technology*, 41(3), 525-536. doi:10.1111/j.1467-8535.2009.00968.x
- Liu, N. F., & Carless, D. (2006). Peer feedback: the learning element of peer assessment. *Teaching in Higher Education*, 11(3), 279-290. doi:10.1080/13562510600680582
- Lundstrom, K., & Baker, W. (2009). To give is better than to receive: The benefits of peer review to the reviewer's own writing. *Journal of Second Language Writing*, 18(1), 30-43. doi: 10.1016/j.jslw.2008.06.002

- Lyons, N., Halton, C., & Freidus, H. (2013). Reflective inquiry as transformative self-study for professional education and learning. *Studying Teacher Education*, 9(2), 163-174. doi:10.1080/17425964.2013.808057
- Mak, B., & Coniam, D. (2008). Using wikis to enhance and develop writing skills among secondary school students in Hong Kong. *System*, 36(3), 437-455. doi: 10.1016/j.system.2008.02.004
- McMahon, T. (2010). Peer feedback in an undergraduate programme: Using action research to overcome students' reluctance to criticise. *Educational Action Research*, 18(2), 273-287. doi:10.1080/09650791003741814
- Min, H. T. (2005). Training students to become successful peer reviewers. *System*, 33(2), 293-308. doi:10. 1016j.system.2004.11.003
- Min, H. T. (2006). The effects of trained peer review on EFL students' revision types and writing quality. *Journal of Second Language Writing*, 15(2), 118-141. doi: 10.1016/j.jslw.2006.01.003
- Nicol, D. (2010). From monologue to dialogue: Improving written feedback processes in mass higher education. *Assessment & Evaluation in Higher Education*, 35(5), 501-517. doi:10.1080/02602931003786559
- Nicol, D., Thomson, A., & Breslin, C. (2014). Rethinking feedback practices in higher education: A peer review perspective. *Assessment & Evaluation in Higher Education*, 39(1), 102-122. doi:10.1080/02602938.2013.795518
- Nilson, L. (2003). Improving student peer feedback. *College Teaching*, 15(1), 34-38. doi:10.1080/87567550309596408

- Nordlof, J. (2014). Vygotsky, scaffolding, and the role of theory in writing center work. *The Writing Center Journal*, 31(1), 45-64. Retrieved from http://writingcenters.org/wp-content/uploads/2015/10/Nordlof_WCJ34.1_2014.pdf
- Noroozi, O., Biemans, H., & Mulder, M. (2016). Relations between scripted online peer feedback processes and quality of written argumentative essay. *The Internet and Higher Education*, 31, 20-31. doi: 10.1016/j.iheduc.2016.05.002
- Philippakos, Z. A. (2017). Giving feedback: Preparing students for peer review and self-evaluation. *The Reading Teacher*, 71(1), 13-22. doi:10.1002/trtr.1568
- Rahimi, M. (2013). Is training student reviewers worth its while? A study of how training influences the quality of students' feedback and writing. *Language Teaching Research*, 17(1), 67-89. doi:10.1177/1362168812459151
- Reynolds, J. A., & Thompson, R. J. (2011). Want to improve undergraduate thesis writing? Engage students and their faculty readers in scientific peer review. *CBE-Life Sciences Education*, 10(2), 209-215. doi:10.1187/cbe.10-10-0127
- Rieber, L. J. (2006). Using peer review to improve student writing in business courses. *Journal of Education for Business*, 81(6), 322-326. doi:10.3200/JOEB.81.6.322-326
- Rollinson, P. (2005). Using peer feedback in the ESL writing class. *ELT Journal*, 59(1), 23-30. doi:10.1093/elt/cci003
- Sadler, D. R. (2010). Beyond feedback: Developing student capability in complex appraisal. *Assessment & Evaluation in Higher Education*, 35(5), 535-550. doi:10.1080/02602930903541015
- Scheffer, B. K., & Rubenfeld, M. G. (2000). A consensus statement on critical thinking in nursing. *Journal of Nursing Education*, 39(8), 352-359.

- Stanley, J. (1992). Coaching student writers to be effective peer evaluators. *Journal of Second Language Writing, 1*(3), 217-233. doi:10.1016/1060-3743(92)90004-9
- Teddlie, C., & Yu, F. (2007). Mixed methods sampling: A typology with examples. *Journal of Mixed Methods Research, 1*(1), 77-100. doi:10.1177/234567890629430
- Topping, K. J. (1996). The effectiveness of peer tutoring in further and higher education: A typology and review of the literature. *Higher Education, 32*(3), 321-345. doi:10.1007/BF00138870
- Topping, K. J. (2009). Peer assessment. *Theory into Practice, 48*(1), 20-27. doi:10.1080/00405840802577569
- Topping, K. J., Smith, E. F., Swanson, I., & Elliot, A. (2000). Formative peer assessment of academic writing between postgraduate students. *Assessment & Evaluation in Higher Education, 25*(2), 149-169. doi:10.1080/713611428
- Tsui, L. (2002). Fostering critical thinking through effective pedagogy: Evidence from four institutional case studies. *The Journal of Higher Education, 73*(6), 740-763. doi:10.1353/jhe.2002.0056
- Tsui, A. B., & Ng, M. (2000). Do secondary L2 writers benefit from peer comments? *Journal of Second Language Writing, 9*(2), 147-170. doi:10.1016/S1060-3743(00)00022-9
- Vygotsky, L. S. (1980). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Wingate, U. (2006). Doing away with "study skills." *Teaching in Higher Education, 11*(4), 457-469.

Wood, D., Bruner, J. S. & Ross, G. (1976). The role of tutoring in problem solving.

British Journal of Psychology, 66, 181-191. doi:10.1111/j.1469-7610.

1976.tb00381.x

Zhu, W. (1995). Effects of training for peer response on students' comments and

interaction. *Written Communication*, 12(4), 492-528.

doi:10.1177/0741088395012004004

Zimmerman, B. J., & Kitsantas, A. (2002). Acquiring writing revision and self-regulatory

skill through observation and emulation. *Journal of Educational Psychology*,

94(4), 660-668. doi:10.1037/0022-0663.94.4.660

Appendix A

Biweekly Reflective Questions

As part of the data collection, participants were asked to respond to the following questions:

Week 1.

1. Please describe what motivated you to volunteer as a writing assistant in the Student Success Center and how this experience has been meaningful to you personally. What value do you get from helping other students?
2. Has anything you've done or experienced in your role as a writing assistant over the last two weeks influenced your own writing or assignments?

Week 2.

3. Thinking back to the training you received as a writing assistant, is there a strategy or technique you were taught that you commonly draw upon when providing feedback on students' writing?
4. Your experience as a writing assistant could include many things such as student appointments, feedback you've received in your role, a conversation with another writing assistant or the training you participated in at the start of the program. Has anything about your experience as a writing assistant over the last two weeks prompted any changes in your own approach to writing?

Week 3.

5. Please describe the process you follow as a peer reviewer when providing feedback to other students about their writing. How do you know what is important to focus on when providing feedback?

6. Since you became a writing assistant have you noticed any differences in the feedback you receive on your writing projects from TA's or instructors or other sources? Please explain.

Week 4.

7. Describe the process you follow when revising and editing your own work. What do you think about when re-reading what you have written and how do you assess its quality?
8. How would you describe your own development as a writer during your university years? What are the primary changes you've made in your approach to writing and what has influenced your development?

Week 5.

9. Please describe the training you have received as a writing assistant in as much detail as you can. Include the initial training session you attended in September and any ongoing training or support you have received in your role throughout the year. Ongoing training could include team meetings, additional resource material or other forms of support. Please describe the content of the training, any resource materials you received and the ways in which the training / support was delivered.
10. Please provide examples of things that have happened that confirm you are an effective peer reviewer in your role as a writing assistant. How do you know the feedback you provide to students is helpful? Have you ever received any feedback from your supervisor identifying things do well or need to improve upon?

11. How do you measure your success as a writing assistant? During an appointment or immediately after, how do you know if you are being helpful to the student and providing effective feedback?