Examining the role of feedback on agricultural communications students’ writing self-efficacy and self-determined motivation

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Examining the role of feedback on agricultural communications students’ writing self-efficacy and self-determined motivation

by

Haley Banwart

A dissertation submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Major: Agricultural Education

Program of Study Committee:
Robert Martin, Co-major Professor
Shuyang Qu, Co-major Professor
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The student author, whose presentation of the scholarship herein was approved by the program of study committee, is solely responsible for the content of this dissertation. The Graduate College will ensure this dissertation is globally accessible and will not permit alterations after a degree is conferred.

Iowa State University
Ames, Iowa
2020

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ACKNOWLEDGMENTS

First, I would like to thank my committee co-chairs, Dr. Robert Martin and Dr. Shuyang Qu, and my committee members, Dr. Scott Smalley, Dr. Mark Hainline, and Dr. Abby Dubisar for their guidance and support through the course of this research. I would also like to express my appreciation to the students who participated in my research study and shared a common passion for advancing the greater agricultural communications profession. Finally, I would like to thank my friends, colleagues, and family members, especially my parents, for helping me overcome the odds and endure the impossible moments.
ABSTRACT

The agriculture industry depends on agricultural communicators to present scientific information and convey complex agricultural issues to diverse audiences (Watson & Robertson, 2011). As such, written communication skills have consistently been identified as the top proficiency agricultural communications graduates should possess to fulfill the demands of the profession (Doerfort & Miller, 2006; Irlbeck & Ackers, 2009; Morgan, 2012; Sprecker & Rudd, 1997; Steede, Gorham & Irlbeck, 2016). However, employers across the industry agree agricultural communications graduates do not demonstrate career preparedness in this skill area (Banwart, 2017; Irlbeck & Ackers, 2009; Leal, 2016; Morgan, 2010). The motivation for this study was to capture how agricultural communications students’ experience writing and provide practical recommendations for improving writing instruction.

Self-efficacy is one promising avenue researchers have supported in improving writing education and performance (Pajares, 2003). Additionally, feedback plays a powerful role in helping students become effective writers and can serve as an important source of self-confidence (Ahrens, Meyers, Irlbeck, Burris & Roach, 2016). Previous studies in agricultural communications have loosely explored how feedback (i.e., social persuasion) influences agricultural communications students’ beliefs about writing. In order to improve students’ writing skills, faculty should understand how students perceive and respond to the feedback they provide.

The purpose of this study was to examine the role of feedback in the development of agricultural communications students’ writing self-efficacy within the context of the courses they enroll in at Iowa State University (ISU). The study addressed three research objectives: 1.) explore how agricultural communications students perceive their writing self-efficacy,
specifically what sources shape their self-efficacy beliefs, 2.) identify student preferences toward different types of feedback practices, and 3.) investigate how agricultural communications students’ motivation to write is influenced by feedback. Phenomenological qualitative methods were used to answer the research questions.

Findings from the study indicated agricultural communications students use a variety of sources to inform their self-efficacy beliefs including their interpretations of their writing performance and education, interactions with modeling and assignment expectations, feedback messages and their perceived value of writing, feelings of anxiety and optimism, self-regulated learning strategies, such as prewriting and drafting processes, different types of writing, such as academic writing versus industry writing, and different types of courses, including agricultural science and communications courses. Several patterns in feedback preferences and points of divergence between current feedback practices and student preferences were also uncovered. These discrepancies helped to reveal implications for which practices align with a feedback seeking orientation versus a feedback avoidance orientation. Finally, the study identified what factors diminish or drive students’ writing motivation as they approach the revision process. Factors such as level of depth and explanation, students’ receptivity toward feedback, student-instructor relationships, and various levels of feedback analysis were considered. Overall, the findings were consistent with previous studies yet yielded new findings for expanding future research. Several recommendations for practice were also provided.
CHAPTER 1. INTRODUCTION

Background and Setting

Throughout history, agriculture has been a dominant cultural influence impacting society’s dependency on farmers to grow, gather, and harvest food. While agriculture’s role in food production has not changed, rapid urbanization on a global scale has significantly reduced labor resources (Boone, Meisenbach & Tucker, 2000). Today, less than two percent of the U.S. population is responsible for feeding and fueling the nation (American Farm Bureau Federation, 2019). Effective communication is critical to the promotion of agriculture and its stakeholders as the general public becomes further removed from food and farming practices (Bailey-Evans, 1994). Key stakeholders include consumers, precision technology and equipment manufacturers, seed and fertilizer suppliers, food processors and retailers, landowners as well as the individual farm and ranch families who rely on farming for wages and as a way of life. Additionally, because agricultural crop and livestock practices have changed dramatically due to mechanization, technological innovation, and demands of the public, “there is more ‘information’ but perhaps less ‘knowledge’ than ever before in agriculture” (Boone, et al., 2000, p. 41). This lack of knowledge has led to distrust of the food and farming sectors (Center for Food Integrity, 2014). Subsequently, the agriculture industry depends on agricultural communicators to present scientific information and convey complex agricultural issues to diverse audiences (Watson & Robertson, 2011), and “build a relationship of trust and shared values with consumers” (Kurtzo, Hansen, Rucker & Edgar, 2016, p. 2).

Development of the Agricultural Communications Discipline

As a profession, agricultural communications has evolved into a highly specialized discipline requiring a background in biological sciences such as genetics, nutrition, and
physiology (Barrick, 1989), and proficiency in a variety of communications fields including news and broadcast reporting; feature writing; public relations; strategic communications; photojournalism; crisis communications; marketing and branding; and electronic communications (Irani & Doerfert, 2013; Tucker, Whaley, & Cano, 2003). In addition to keeping up with agricultural advances in areas like biotechnology or precision farming, the emergence of the Internet as a communications medium has challenged agricultural communicators to integrate digital technologies with traditional media outlets including print, radio and television (Boone, et al., 2000). Moreover, a public desire to understand how these agricultural advances impact food production and a need for instantaneous information have contributed to increasing demand for skilled agricultural communications professionals.

Just as the agricultural communications profession has experienced growth and development, so have the academic programs that teach the required skills and train young professionals for careers in this field. Currently, there are approximately 40 agricultural communications undergraduate programs offered by universities and community colleges across the U.S. (Miller, Large, Rucker, Shoulders & Ruck, 2014). Many of these programs originated from courses and undergraduate studies in agricultural journalism. Agricultural journalism programs were traditionally housed within schools of journalism. When these programs were phased out in order for journalism schools to develop other curricular priorities, colleges of agriculture throughout the Midwest began to adopt modified versions of the program and assumed responsibility for preparing the next generation of agricultural communicators (Tucker et al., 2003). Early programs in agricultural journalism were limited in scope. Today, students seeking an education in agricultural communications often pursue a mixed curriculum that includes a combination of science, journalism, and agriculture courses (Cartmell & Evans, 2013).
**Academic Influences**

Three entities shaped the current structure and orientation of agricultural communications programs. First, home departments within colleges of agriculture placed smaller, lesser developed programs such as agricultural communications under the umbrella of other disciplines. In many cases, agricultural education departments became the parent discipline, and as a result, agricultural communications programs began to assume characteristics of their larger counterpart. Teaching became a strong emphasis at the expense of other communication related activities (Tucker et al., 2003).

Although many schools of journalism phased out agricultural journalism education, the discipline continued to have a major influence on newly coined agricultural communications programs. Common academic orientations in agricultural communications have mirrored those of mainstream communication and sociology (Tucker, 1996), positioning journalism and mass communication as one of the most essential academic units involved in delivering the curricula (Sprecker & Rudd, 1997). According to Tucker et al. (2003), “how well the academic division of labor is coordinated between agricultural communications and journalism/mass communication is one of the most important factors influencing the nature of the undergraduate agricultural communications curriculum at a given institution” (p. 26). Effective collaboration between schools of journalism and colleges of agriculture can increase economic and intellectual resources, visibility, and prestige (Tucker, et al., 2003).

A third influencer of today’s agricultural communications programs includes industry stakeholders. Historically, assessing content or delivery of the curriculum in collaboration with private industry has been a contentious issue because disparities between industry and academia often exist (Doerfort & Miller, 2006). However, both schools of journalism and agricultural colleges have tasked members of the private industry sector to play a major role in defining the
agricultural communications program’s mission and curricular priorities. Various alumni committees and advisory boards have provided feedback and made recommendations based on the desired competencies of graduates. Feedback provided by industry tends to weigh heavily on a program’s performance and ability to provide practical employment skills (Tucker, et al., 2003).

Fulfilling the Demands of the Profession

Researchers studies based on industry feedback have consistently identified written communication skills as one of the top proficiencies agricultural communications graduates should possess to fulfill the demands of the profession (Doerfort & Miller, 2006; Irlbeck & Ackers, 2009; Morgan, 2012; Sprecker & Rudd, 1997; Steede, Gorham & Irlbeck, 2016). In a recent study that compared the agricultural communications curriculum to employer expectations, researchers found that written communication skills continue to rank highest among the competencies desired by employers. Similarly, they found that written communication skills were ranked among the top skills being taught in agricultural communications programs (Corder & Irlbeck, 2018). However, employers across the industry agree agricultural communications graduates do not demonstrate career preparedness in this skill area (Banwart, 2017; Irlbeck & Ackers, 2009; Leal, 2016; Morgan, 2010).

A closer examination of agricultural communications graduates’ career readiness reveals clear and concise writing as well as proper punctuation, grammar, and spelling are among the most important technical writing skills required. Although graduates reported having a high level of ability in this skill area, industry professionals and instructors did not rate these skills above moderate ability (Leal, 2016). Irlbeck and Ackers (2009) also found employers believed graduates’ spelling and grammar needed improvement. Leal (2016) hypothesized this deficiency may exist due to students entering college with poor writing skills. This places students at a
disadvantage, “making it more difficult for them to improve their writing in a faster-paced educational setting” (Leal, 2016, p. 153). According to Leggette, Jarvis and Walther (2015), the college curriculum plays a critical role in students’ ability to become effective writers. Therefore, individual agricultural communications programs should conduct regular reviews to ensure existing curriculum is preparing students for the workforce.

In 2016, Banwart conducted a focus group project to determine the effectiveness of the current agricultural communications curriculum. Participants consisted of current students enrolled in the agricultural communication program at ISU, recent agricultural communications graduates in the early stages of their professional careers, and agricultural communications professionals with more than ten years of industry experience. These groups were selected for the study in an effort to align the curriculum revision process with students who are directly associated with the curriculum, and professionals who practice the discipline (Doerfert & Miller, 2006).

Findings of the needs assessment analysis suggested that while participants agreed written communication skills are one of the most important competencies agricultural communicators should possess, they expressed dissatisfaction in the curriculum’s role in preparing students to become effective writers (Banwart, 2017). These findings echo other studies that have investigated employers’ perceptions of which communication skills are satisfactory and which need improvement among agricultural communications graduates (Ciuffetelli, 2002; Clem, 2013; Deering, 2004; Irlbeck & Ackers, 2009; Maiga, 2005; McGaha, 2000; Morgan, 2010). There is mounting consensus “writing is essential to students’ success in school and beyond” (p. 498), but there are opposing views on what educators can do to improve students’ writing skills. (Graham, Harris & Santangelo, 2015).
Statement of the Problem

Students seeking an education in agricultural communications often pursue a mixed curriculum that includes a variety of science, journalism, and agriculture courses where much emphasis is placed on writing (Cartmell & Evans, 2013; Kearl, 1983). Moreover, instructors across these disciplines have been tasked with increasing the amount of writing in their classrooms to better prepare students for workplace settings (Kastman & Booker, 1998). In order to improve students’ writing skills, faculty should understand how students perceive the feedback they provide. Feedback plays a powerful role in helping students become effective writers and can serve as an important source of self-confidence (Ahrens et al., 2016). Previous studies in agricultural communications have loosely explored how feedback influences agricultural communications students’ beliefs about writing. Additional research on the types, quality, and usefulness of feedback is needed to understand how students develop their writing self-efficacy. Examining the role feedback plays in students’ writing self-efficacy is an important step in moving the needle from identifying the most important skills graduates should possess when entering the workforce toward a better understanding of how to improve written communication skills. As a result, instructors may gain insights into how they can help students get the most out of the feedback they are providing and improve their effectiveness in promoting students’ writing self-efficacy. In turn, these efforts will better prepare agricultural communications graduates for the important role they serve in presenting scientific information and gaining a public understanding of agriculture.

Purpose and Objectives

The purpose of this study was to examine the role of feedback in the development of agricultural communications students’ writing self-efficacy within the context of the courses they enroll in at ISU. Three research questions guided this study.
1.) What sources of information inform agricultural communications students’ writing self-efficacy?

2.) What factors impact agricultural communications student’s attitudes toward different types of feedback practices?

3.) How does feedback influence agricultural communications students’ motivation to write?

**Significance of the Study**

This study aimed to provide recommendations on how feedback can be improved to further support and develop the essential writing skills agricultural communications students’ need to fulfill the demands of the profession. In seeking to understand how students perceive their writing self-efficacy, this study may also shed light on the expectations agricultural communications students’ hold about the types, quality, and usefulness of the feedback they desire from their instructors, and if any misalignment exists when these expectations are compared to current practices. The results can be used to inform how feedback can be modified to maintain students’ self-beliefs in their writing skills. As a result, instructors can gain a better understanding of what types of feedback are preferred in order to provide meaningful comments to students about their writing performance throughout the learning process. A broader impact of the study includes meeting the expectations of employers who have identified written communication skills as the top proficiency agricultural communications graduates should possess. Additionally, by investigating a discipline that combines writing and agricultural science, this study can also inform other interdisciplinary fields on how to advance writing across the curriculum and improve writing instruction.

**Definition of Terms**

*Social cognitive theory* – model of reciprocal causation where behavior, cognition and other
personal factors, and environmental influences all operate as interacting determinants

**Self-efficacy** – the belief in one’s ability to influence events that effect one’s life and control the way these events are experienced

**Mastery experience** – previous experiences with writing perceived to be successful or unsuccessful

**Vicarious experience** – observations of others’ experiences with writing or modeled learning that provides a point of reference for comparison

**Social persuasion** – verbal messages and other forms of feedback pertaining to past writing performance or general statements about the importance and uses of writing

**Physiological and emotional states** – feelings or sensations experienced during or related to writing

**Theories of implicit intelligence** – framework for understanding student’s views on intelligence and achievement

**Entity view** – theory of fixed intelligence that positions intellect as a trait that cannot be changed

**Incremental view** – theory of malleable intelligence that treats intellect as a trait that can be cultivated through learning

**Feedback** – any procedure used to inform a learner whether an instructional response is correct or incorrect

**Global feedback** – holistic examination of a performance or product such as content, organization, and clarity of purpose

**Local feedback** – narrow focus of a performance or product such as word choice, grammar, and punctuation

**Self-determination** – the process of exercising one’s will to complete a task or satisfy a need
Self-determination theory – construct that captures the persistent, proactive, and positive
tendencies of human nature as well as the social contexts that may diminish sense of agency

Competence – individual’s need to be effective in dealing with their environment and developing
mastery over tasks

Autonomy – need to govern the course of one’s life including outcomes and behavior

Relatedness – need for interaction and building meaningful relationships with others

Intrinsic motivation – innate human tendency to move towards growth

Extrinsic motivation – behavior driven by external rewards or outcome avoidance

Individual intelligence – feedback focused on merits of an individual student

Social comparison – feedback comparing accomplishments of an individual student to
accomplishments of their peers

Phenomenology – methodological practice for capturing the essence or fundamental meaning of
shared experiences

Thematic analysis – qualitative method for identifying, analyzing, and reporting patterns within
data
CHAPTER 2. REVIEW OF LITERATURE

Historically, writing instruction has focused on mechanical accuracy and improving students’ grammar, punctuation, and spelling errors (Foster, 1983; Nystrand, 2006; Rose, 1985). Subsequently, early writing research emphasized writing skill and ability over knowledge creation and human development, and the application of theoretical frameworks was limited (Nystrand, 2006). Since then, researchers have developed several theoretical and conceptual frameworks related to writing and have shifted from a focus on mechanical errors and basic composition to a broader investigation of the various contexts in which writing is situated, including the cognitive processes and social and cultural influences involved (Prior, 2006). As a result, writing research has become more holistic and encompasses the conditions in which writing occurs rather than concentrating on a writer’s ability to compose good text (Leggette, Rutherford, Dunsford & Costello, 2015).

For over a century, agricultural communicators have used writing to articulate information about food, science, and environmental systems to agricultural and non-agricultural audiences (Boone, et al. 2000). Such tasks require an understanding of who the audience is, what messages resonate with them, and how to reach them using a variety of storytelling approaches. It also involves crafting strategic messages that are clear, compelling, and concise (Kurtzo et al., 2016). Writing is an essential component of agricultural communications education, research, and practice; however, existing theories “lack sufficient empirical evidence that supports writing education” (Leggette, Rutherford, et al., 2015, p. 39). According to Tucker (1996), “the most common theoretical orientations in agricultural communications generally have mirrored those of mainstream communication and sociology” (p. 8). This dependence on other fields of interest has resulted in a community of scholarship lacking focus, rigor, and an integrated theoretical
foundation. Additionally, because popular theories used within the agricultural communications discipline, such as uses and gratifications theory and gatekeeping theory (Evans, 2006), are not oriented within the writing research paradigm, few research studies consider the theoretical underpinnings of writing development or inform the profession how to teach writing (Leggette, Rutherford, et al., 2015). Furthermore, in a quantitative content analysis of the theories and models used in agricultural communications research, Baker and King (2016) concluded that a majority of studies rarely test or build upon existing theories. These findings demonstrate the absence of replicated theory needed to advance the field. Recommendations from the study emphasized the importance of building on previous research to achieve theoretical progression (Baker & King, 2016).

In an effort to identify applicable writing theories for modern-day writing research, Leggette and Rutherford et al. (2015) conducted a comprehensive review and evaluation of prominent theories of writing. Three theories emerged as a result of the analysis including cognitive process theory, social cognitive theory, and sociocultural theory. Cognitive process theory is characterized as the “distinctive thinking process which writers orchestrate or organize during the act of composing” (Flower & Hayes, 1981, p. 366). Through this lens, writers move within a hierarchal structure of mental processes rather than through linear stages of writing development (Flower & Hayes, 1981). Social cognitive theory, on the other hand, considers all the forces guiding composition and message construction, including the attitudes and feelings of the writer and their surrounding environment (Flower, 1994). Finally, sociocultural theory of writing defines writing development as an activity involving specific values, practices, and symbol systems rather than a universal process of learning (Dauite, 2000). Of the three theories described, social cognitive theory was found to be the most complete because it considered the
various complexities involved in the writing process, including cognitive and environmental factors. However, each theory brings a unique perspective to writing research and has the potential to advance agricultural communications research and practice (Leggette, Rutherford, et al., 2015).

Agricultural communicators know writing is an essential skill, but knowledge and application of the theoretical foundations of writing and writing development are not yet well understood or operationalized in the field. When applied within the right paradigm, theoretical frameworks have the potential to make substantial contributions to empirical research. Few studies in the agricultural communications discipline have attempted to use theories within the writing research paradigm to unravel the process students use to interpret assumptions, make meaning, solidify intentions, or convey knowledge through writing (Leggette, Rutherford, et al., 2015). Furthermore, in an examination of student development theory in the context of writing instruction, Leggette, Whitaker and Miranda (2017) proposed a holistic approach to writing instruction focusing on “students perspectives of assignments, their navigation of the writing process through class experiences, their feedback on course content and assignments, and their development as people, professionals, and writers” (p. 40). This approach was presented in response to the National Council of Teachers in English (2009) call for reformed writing instruction models. Recognition of this proposed model motivated an examination of the subsequent streams of literature focused on self-efficacy, feedback, and self-determined motivation.

A Framework for Investigating the Role of Feedback in Writing Self Efficacy and Self-Determined Motivation

While theoretical inquiry continues to expand existing knowledge on how writing develops, an abundance of empirical evidence exists to support the idea that the task of helping
students advance from struggling writers to skilled wordsmiths hinges on a variety of factors including the environment in which writing occurs and the continuum of students’ skills, strategies, knowledge, and motivation (Graham et al., 2015). The following literature review presents a summarization of the contexts in which these factors have been investigated and a discussion of relevant theories focusing on students’ self-perceptions of their writing skills, the nature of feedback, and the relationship between feedback, motivation, and revision strategies. This review provided the foundation of knowledge that shaped the conceptual framework used in the present study.

Social Cognitive Theory and Self-Efficacy

One of the largest bodies of literature on writing development derives from social cognitive theory and self-efficacy. Social cognitive theory emphasizes the role of self-referent beliefs where “individuals are viewed as proactive and self-regulating rather than as reactive and controlled by biological or environmental forces” (Pajares, 2003, p. 139). It is founded on Bandura’s model of reciprocal causation involving three elements: behavior, cognition or other personal factors, and environmental influences (Bandura, 1989). In this triadic model, behavioral, cognitive, and environmental influences do not function equally or occur simultaneously. Rather, these different sources of influence operate as interacting determinants of one another (Jalaluddin, 2017).

Cognitive influences include the self-enhancing or self-debilitating reasoning learners use to internalize their intellectual abilities. Such judgements may either encourage learners to feel accountable for their experiences and environment, or cast doubt on their sense of agency. Behavioral influences represent the choice learners have to take control of their learning. Through thoughtful decision-making and deliberate action, learners determine what types of environments are best suited for knowledge and skill acquisition. While some environments may
be conducive for learning, others may limit growth and development. For example, positive role models or inclusive networks foster nurturing learning environments, whereas a lack of resources or disruptive conduct threatens learner engagement (Bandura, 2008). In turn, these environmental influences impact cognitive reasoning and behavior outcomes, demonstrating the fluidity of Bandura’s model.

An underlying component of social cognitive theory is self-efficacy (Bandura, 1986). Self-efficacy beliefs refer to one’s perceptions of their ability to complete a specific task (Walker, 2003). Defined by Bandura (1986) as “people’s judgments of their capabilities to organize and execute courses of action required to attain designated types of performances” (p. 391), self-efficacy beliefs serve as a foundation for human motivation, well-being, and personal accomplishment (Johnson, Pajares & Usher, 2007). Students who are efficacious are more likely to demonstrate characteristics such as hard work, persistence, and determination to complete a challenging task, such as writing. (Walker, 2003).

Self-efficacy is one promising avenue researchers have supported in improving writing education and performance (Pajares, 2003). Studies have consistently demonstrated the relationship between self-efficacy beliefs and writing performance among students of all ages, genders, and ethnicities (e.g., Pajares & Johnson, 1994, 1996; Pajares, Miller, & Johnson, 1999; Pajares & Valiante, 1999, 2001; Schunk & Swartz, 1993; Shell, Colvin, & Bruning, 1995; Zimmerman & Bandura, 1994). “Student’s confidence in their writing capabilities influence their writing motivation as well as various writing outcomes in school” (Pajares, 2003, p. 141). However, the scope of students’ writing self-efficacy varies by level, strength, and generality. For example, a student’s self-belief may differ from one domain of writing to another. Therefore, they may not consider themselves efficacious across all types or styles of writing (Pajares, 2003).
According to Spicer (2004), strength, or the intensity of one’s self-efficacy, is a key dimension that serves as an indication of how well learners approach difficult tasks and challenges. While high self-efficacy learners tend to hold an affirmative orientation toward writing tasks, low self-efficacy learners will readily change their self-efficacy beliefs, even if they have previously experienced success (Spicer, 2004).

**Sources of self-efficacy and beliefs about writing**

According to Bandura (1977), there are four sources of information from which individuals develop their self-efficacy beliefs. These sources include mastery experience, vicarious experience, social persuasion, and physiological and emotional states. Mastery experience, or the interpretation of one’s performance, is outcome-based and thought to be the most influential source on how beliefs about ability are formed. When outcomes of past experiences are interpreted as successful, self-efficacy increases. When they are interpreted as unsuccessful, self-efficacy decreases (Johnson, Pajares & Usher, 2007). However, the influence of one’s perceived successes or failures are also dependent on task complexity, timing, and repetition that leads to continued success. For example, students who expend the effort and persistence to accomplish a more challenging task are more likely to develop self-efficacy than students who relinquish the task or do not attempt it (Walker, 2003). Similarly, failures that occur later in the course of a students’ performance are less detrimental to their self-efficacy than earlier failures (Artino, 2012). Nevertheless, mastery experience is considered the “most direct, authentic evidence” (p. 78) of an individual’s potential to succeed (Artino, 2012).

The second source, vicarious experience, occurs as a result of observations or social comparisons made of others. Learned through modeling, vicarious experience can play a powerful role in developing self-perceptions of competence (Pajares, 2003). These observations of others’ successes and failures are especially useful when students are uncertain about their
self-efficacy beliefs or have limited experience with the task at hand (Johnson et al., 2007). As a result, different forms of modeling can have a significant influence on students’ self-efficacy in their learning environments. For example, in writing classrooms students may observe their peers as they compose text, or use student work samples that their teachers provide as a form of mentor texts (Ray, 2002). Although vicarious experiences are considered a weaker source of self-efficacy that is more susceptible to change than mastery experiences, it remains an important source through which students’ self-efficacy beliefs are generated (Artino, 2012).

Self-efficacy beliefs also develop through social persuasion or the verbal messages and feedback received from others. While positive messages tend to encourage or empower, negative persuasions often defeat and weaken self-efficacy beliefs. According to Johnson et al. (2007), “it is usually easier to weaken self-efficacy beliefs through negative appraisals than to strengthen such beliefs through positive encouragement” (p. 107). For example, red pen corrections are likely to have a stronger influence on negatively persuading students’ self-efficacy beliefs than a teacher’s positive comments will encourage them (Johnson et al., 2007). In academic settings, social persuasion also plays a role in informing students how well they can cope with difficult tasks. While positive messages are needed to reinforce students’ self-beliefs, messages that are overly optimistic can discredit the source of persuasion and undermine a students’ self-efficacy (Artino, 2012). Furthermore, social persuasion has been linked to students’ perceptions of the importance or uses of writing. As explained by Holmes (2016), writing is a learning process and not an inherent skill. Resultantly, students do not always value writing. Therefore, statements that emphasize and inform students about the importance of writing are needed to persuade students’ perceived value of writing and increase their self-efficacy.

Finally, physiological and emotional states, including feelings of anxiety, stress,
optimism, and pride, can serve as an indication of one’s perceived ability (Pajares, 2003). Such states serve as important cues about a student’s anticipated successes or failures. For instance, as students contemplate a task, their reactions to their physiological and emotional well-being may trigger additional stress that heightens their fears and diminishes their performance (Artino, 2012). These intense feelings are often attributed to writing experiences as writing is a task that is personal in nature and thus evokes a strong emotional response (Johnson et al., 2007). Prolonged states of distress may lead students to become skeptical of their success and influence their engagement in tasks that they believe may result in failure (Walker, 2003). Subsequently, physiological and emotional states have a significant impact on students’ vulnerability and the positive or negative feelings that influence their self-efficacy beliefs (Artino, 2012).

Previous research on the sources of self-efficacy has primarily focused in areas such as math and science; however, studies have confirmed students also use these four sources of information to form their beliefs about writing. Using a Sources of Self-Efficacy Scale from Lent, Lopez, and Bieschke (1991), Johnson et al. (2007) conducted a correlational study to determine which of Bandura’s sources are related to writing self-efficacy. This application had not been previously used in the domain of writing and was thus a pivotal study advancing writing self-efficacy research. Based on their investigation, which included a sample of 1,256 students varying by gender and ranging from grades four to 11, all sources of self-efficacy were found to be predictive of writing self-efficacy, and as hypothesized, mastery experience was found to be the most predictive (Johnson et al., 2007).

In addition to providing valuable information about the different sources that influence self-efficacy beliefs, the work of Johnson et al. (2007) initiated a shift towards using a qualitative approach to explore this construct. A majority of earlier self-efficacy research had been
conducted using quantitative methods. Following the study, researchers called for a greater balance between quantitative and qualitative efforts aimed at exploring the development of writing self-efficacy beliefs and how students perceive these beliefs throughout their academic career. Subsequently, several studies began to adopt qualitative methods to further investigate academic self-efficacy, motivation, and achievement in writing (Behizadeh, 2014; Usher, 2009). Results from these studies indicated students may have higher senses of writing self-efficacy unrelated to their performance, identified a need for instruction to promote authentic writing, and validated the use of Bandura’s theorized sources of self-efficacy among middle school mathematics students.

Holmes (2016) employed a combination of qualitative approaches to capture gifted middle school students’ experiences with writing and further explore how sources of information inform their self-efficacy beliefs. A qualitative phenomenological case study was used to provide a detailed account of how four students’ writing self-efficacy developed as they interacted in the classroom and responded to their teacher’s instructional approaches, assignments, and expectations. Findings from the study confirmed the students used all four sources of information to form their self-efficacy beliefs as explained by Bandura. Two additional sources also emerged from the data including self-regulated learning strategies and different types of writing assignments. These sources of self-efficacy were distinguished from Bandura’s sources as the forethought, strategies, and efforts that lead to mastery outcomes, and students’ comfort using different writing styles. For example, self-regulated learning strategies were found to influence students’ writing self-efficacy through the planning, monitoring, and implementation of problem solving skills such as re-reading sections of text out loud, drafting outlines, and completing writing assignments in environments void of distractions. Similarly, Holmes (2016) found that as
students engaged with different types of writing, such as creative writing versus research writing, they experienced higher levels of self-efficacy when they were more familiar and comfortable with the particular writing style. Overall, the results echoed findings from Usher (2009) who studied sources of self-efficacy among middle school mathematics students and confirmed the use of self-regulated learning strategies influences students’ self-efficacy beliefs. Furthermore, Holmes (2016) and Usher (2009) demonstrated that other salient forms of information influencing students’ self-efficacy exist beyond Bandura’s hypothesized sources. In both studies, the samples were representative of adolescent students who are in the developmental stages of learning. Additional research is needed to understand how other student populations develop self-efficacy and interpret their abilities using different sources of information and at different stages in their learning, such as at the post-secondary education level.

**Self-Efficacy and writing outcomes**

Many early self-efficacy studies conducted on college undergraduates focused on the relationship between writing self-efficacy and writing performance (e.g., McCarthy, Meier & Rinderer, 1985; Meier, McCarthy & Schmeck, 1984; Shell, Murphy & Bruning, 1989). These studies were typically informed by essay scores indicating students’ confidence in their ability to operate specific writing skills, such as correctly punctuating passages of text and describing a story’s setting, or their capacity to complete writing tasks, for example, authoring a short fiction story (Pajares, 2003). Based on these scores, researchers used multiple regression models to identify variables that correlate with writing self-efficacy beliefs. Variables including writing anxiety, grade goals, depth of process, and expected outcomes were reported to be predictive of writing performance. These results are supported by several studies (e.g., Bruning & Horn, 2000; Pajares et al., 1999; Pajares & Johnson, 1996; Pajares & Valiante, 1999; Rankin, Bruning &
Other studies have associated writing self-efficacy with motivation constructs such as writing apprehension, perceived value of writing, self-regulation, and process goals (Graham & Harris, 1989; Pajares & Valiante, 1997; Pajares et al., 1999; Zimmerman & Bandura, 1994). Writing apprehension refers to the fear, anxiety, or avoidance of encoding written messages. Daly and Miller (1975) first used writing apprehension to explain how writing anxiety was linked to SAT verbal scores, likelihood of success in writing, and willingness to enroll in writing courses. Perceived value is explained through the judgements students hold about the utility or intrinsic value of writing tasks. Together, these components determine the level of engagement and success students experience (Wigfield & Eccles, 1992). For example, a student who expects to be successful in a course tends to value that course. Similarly, students’ self-efficacy for self-regulation has been closely linked with writing competence among other variables including greater strategy use, higher intrinsic motivation, adaptive attributions, and academic achievement (Harris & Graham, 1992; Pintrich & De Groot, 1990; Schunk & Zimmerman, 1994; Zimmerman, Bandura, & Martinez-Pons, 1992; Zimmerman & Kitsantas, 1999; Zimmerman & Martinez-Pons, 1990; Zimmerman & Risemberg, 1997; Zimmerman & Schunk, 1989). As a result, students’ perceived self-regulatory skills play an influential role in the degree of confidence they possess when approaching academic writing tasks. Finally, process goals, or the specific strategies students use to improve their writing, have been found to increase students’ writing self-efficacy and competence. When regular feedback is provided, writing competence improves and strategy use increases even more (Graham & MacArthur, 1988; Graham, MacArthur, Schwartz, & Page-Voth, 1992; Schunk & Swartz, 1993).
Researchers who have explored these various outcomes and motivation constructs in writing studies acknowledge the predictive and mediational roles self-efficacy beliefs play on writing performance in the realm of social cognitive theory. Although some of these factors have not been found to independently influence students’ writing performance, the correlations drawn have made a significant contribution in deepening our understanding of the complexities involved in writing and writing development. A small number of studies in the field of agricultural communications have begun to explore these components and their effects on writing self-efficacy.

**Writing and self-efficacy studies in agricultural communications**

Agricultural communicators know writing is an essential skill, but knowledge and application of the theoretical foundations of writing and writing development are not yet well understood or operationalized in the field. When applied within the right paradigm, theoretical frameworks have the potential to make substantial contributions to empirical research. Few studies in the agricultural communications discipline have attempted to use theories within the writing research paradigm to unravel the process students use to interpret assumptions, make meaning, solidify intentions, or convey knowledge through writing (Leggette, Rutherford, et al., 2015).

In one related study, researchers explored the development of students’ writing identity in an advanced agricultural communications media writing course (Leggette, Jarvis, et al., 2015). The population for the study included agricultural communications undergraduates at Texas A&M University. Using qualitative methods, the researchers reviewed one-page reflections the students completed as part of their end-of-course evaluations. Results from the study indicated student-faculty relationships played a key role in the development of students’ writing identity through feedback and interpersonal connections. An emphasis was also placed on the role of the
discourse community, or writing environment, in which student work occurred. Leggette and Jarvis et al. (2015) contended this discourse community is most effective when it is representative of a professional writing environment and “guided by consistent feedback and writing practice” (p. 11). The researchers recommended shifting writing instruction from teaching the end product, to teaching students how to move along the writing process. Additionally, they encouraged future studies to focus on what components of writing assignments help students become more effective writers.

Another study centered around a singular agricultural communications course adopted the self-efficacy framework to investigate computer-based peer feedback on students’ performance (Wagner & Rutherford, 2019). In this quasi-experimental study, undergraduates enrolled in an online agricultural media graphic design course were asked to complete a pre- and post-course survey as a measure of their confidence in their ability to use the software applications introduced throughout the semester. Students from the online section who participated in peer review were found to perform as well as their face-to-face peers on advanced assignments, confirming computer-based peer review improves student performance of graphic design skills. However, changes in perceived self-efficacy through the peer review process were not found to be statistically significant. The researchers explained a possible reason for a lack of sufficient evidence linking the impact of peer review to students’ perceptions of self-efficacy was overconfidence in graphic design software ability prior to the course. Overall, the incorporation of a computer-based peer review system was found to positively impact student engagement and performance in graphic design. Based on these findings, recommendations were made to expand peer review as a form of feedback to all courses, not just courses solely focused on written or oral communications skills (Wagner & Rutherford, 2019). Replications of this study in other
contexts of agricultural communications may reveal how additional forms of feedback compare in increasing students’ perceptions of self-efficacy.

A third study, also rooted in social cognitive theory and self-efficacy, sought to understand the degree of agricultural communications students’ communication apprehension (CA) and writing apprehension (WA), or their fear, anxiety, or avoidance affecting oral and written communications (Ahrens et al., 2016). Through one-on-one qualitative interviews, the researchers found that levels of students’ CA and WA were linked by how well instructors fostered an environment that is conducive to changing behavior. In order to improve students’ writing, a balance must be made between “grading students’ work rigorously while also providing constructive criticism” (p. 129). Although recommendations from the study indicated quality feedback should include teacher’s comments, it did not specify whether these comments should be addressed on a global or local level, nor did the study consider the specific types of feedback agricultural communications students’ desire from their writing courses, such as written, verbal, or electronic responses. Understanding how agricultural communications students cope with CA, WA and other motivation constructs may provide insights on how to create a more ideal learning environment for helping students grow as writers.

Self-efficacy researchers encourage the exploration of writing development in a variety of specific contexts and have called for a greater focus on the individual sources underlying students’ perceived abilities (Bruning & Horn, 2000; Klassen, 2002; Pajares, 2003; Usher & Pajares, 2006). While a small number of studies in the agricultural communications discipline have started to explore this phenomenon, more research grounded in writing theory needs to be conducted on the processes involved in writing and applied in agricultural communications research and practice. A common thread implicated by these recent studies includes the role
feedback plays in developing students’ writing self-efficacy. Recognition of this pattern motivated an examination of the subsequent streams of literature focused on feedback and self-determined motivation.

**Theories of Intelligence and the Nature of Feedback**

A secondary body of literature that seeks to explain how individuals develop beliefs about themselves stems from Dweck’s (2000) theories of implicit intelligence. In addition to demonstrating how self-beliefs shape thoughts, feelings and behaviors, the theories reveal why some students are more likely to work toward reaching learning goals, “in which individuals seek to increase their ability or master new tasks” (Elliott & Dweck, 1988, p. 5), while other students pursue performance goals “in which individuals seek to maintain positive judgments of their ability and avoid negative judgments by seeking to prove, validate, or document their ability and not discredit it” (Elliott & Dweck, 1988, p. 5). Extensions of Dweck’s work also explore the role of motivation in student’s feedback orientations.

According to Dweck, there are two frameworks for understanding student’s views on intelligence and achievement: entity view and incremental view. Entity view, or the theory of fixed intelligence, positions intelligence as a trait within learners that cannot be changed. Students who follow this framework are characterized by their strong desire to prove themselves to others and their avoidance of appearing unintelligent. Driven by this need for acceptance, students may worry about how much fixed intelligence they have, and in some cases, be led to falsely believe that they have enough (Bandura & Dweck, 1985; Dweck & Leggett, 1988).

Dweck describes the effect of students with an entity theory as a “system that requires a diet of easy successes” (Dweck, 2000, p 3). For example, students who feel smart when completing easy, low-effort successes and outperforming other students demonstrate phenomena described by entity theory. Therefore, challenges in the form of greater difficulty levels,
setbacks, or higher-performing peers serve as a threat to their self-esteem. As a result, students will readily disengage from learning opportunities or activities that may expose their weaknesses or call their intelligence into question. Preventing the exploitation of these vulnerabilities within this system can be a challenging task as praise does not encourage persistence among students with an entity theory. Rather, well-intentioned nods of approval foster “an over concern with looking smart, a distaste for challenge, and a decreased ability to cope with setbacks” (Dweck, 2000, p. 3).

In contrast, incremental view, or the theory of malleable intelligence, treats intellect as something that can be cultivated and increased through learning (Bandura & Dweck, 1985; Dweck & Legget, 1988). In this inclusive framework, everyone can master skills with effort and guidance, regardless of how quickly or in what manner skills are acquired. Subsequently, students with an incremental view thrive on challenge and are more likely to engage fully and persevere when completing difficult tasks. They also favor opportunities that allow them to learn something new over opportunities that make them appear smarter compared to their entity view peers (Bandura & Dweck, 1985; Leggett, 1985; Mueller & Dweck, 1998).

Another way incremental view is unlike entity view is that self-esteem is not considered an internal quantity fueled by easy successes. Instead of raising self-esteem, these low-weighted achievements are viewed by students as a waste of time in the pursuit of something they value. Students with an incremental view prefer tasks that are engaging and require effort and the application of knowledge, therefore they feel good about their intelligence when they are presented with opportunities to exercise their abilities through learning. Finally, Dweck differentiates the role of self-esteem between the two frameworks by describing it as something that is taught rather than given to an individual. Ultimately, high levels of intelligence are
achieved when students learn to “value learning over the appearance of smartness, to relish challenge and effort, and to use errors as routes to mastery” (Dweck, 2000, p. 4).

**Linking theories of intelligence to writers’ desire for feedback**

Waller and Papi (2017) adopted Dweck’s theories of implicit intelligence to predict English as a Second Language (ESL) writer’s motivation as well as their feedback orientations and preferences. This was the first conceptualization of this framework in the Second Language Writing (SLW) field. In an effort to have a better theoretical understanding of how students perceive and respond to feedback, the researchers administered a questionnaire to 142 ESL writers measuring their writing motivation, attitudes toward written corrective feedback (WCF), and their orientations toward incremental and entity theories of implicit intelligence. Results were reported using multiple regression models. Incremental theory of writing intelligence emerged as a positive predictor of a feedback seeking orientation, while entity theory was a significant predictor of a feedback avoidance orientation. Incremental theory of writing intelligence was also identified as a significant predictor of writing motivation. In turn, a strong correlation between writing motivation and students’ feedback seeking orientation was noted (Waller & Papi, 2017).

In this study, a feedback seeking orientation was defined as a desire for learner-related feedback that can be used to address writing issues and improve writing skills, whereas a feedback avoidance orientation represented a desire for performance-related feedback (e.g., grades) (Waller & Papi, 2017). Pedagogical implications from the study suggested students with an incremental view are more likely to take advantage of feedback and closely examine their teacher’s comments. Meanwhile, students with an entity view have a higher tendency to glance at their grade with little regard for feedback. Overall, Waller and Papi (2017) provided preliminary evidence on how students’ views of writing intelligence help shape their writing
motivation. Replications of the study among other learner populations, such as agricultural communications undergraduates, may provide additional insights on differences in feedback orientations and preferences.

**Feedback orientations in agricultural communications**

To further understand the role of feedback in writing among agricultural communications students, the broader context of how feedback is given must be taken into consideration. Many inconsistencies exist across feedback studies because researchers have investigated this phenomenon using different definitions and perspectives. Three common contexts in which feedback has been examined include 1.) motivational meaning, such as the use of praise, 2.) reinforcement meaning, which utilizes rewards or punishments, and 3.) informational meaning, or the information used by students to change their performance (Kulhavy & Wager, 1993). In this study, feedback is defined as any procedure used to inform a learner whether an instructional response is right or wrong.

Historically, feedback studies emerged alongside learner-centered approaches to writing-instruction during the 1970s. As a result, feedback practices shifted from a concern over mechanical accuracy to an emphasis on teacher-student interaction, audience interpretation and development, and discovery experienced during the writing and revision process (Ravand & Rasekh, 2011). Multiple approaches for investigating the role of feedback and the factors affecting feedback application have been noted in the literature. For the purpose of this study, source delivery, mode, types of writing errors (i.e., global and local writing concerns), and the timing of feedback will be explored. Studies have shown that when instructors intervene in the feedback process using these four factors, students are more apt to notice problems or patterns in their writing (Cohen, 1987; Ferris & Roberts, 2001; Qi & Lapkin, 2001). Considering how these factors function separately as well as interactively may provide additional insights on how
instructors can improve feedback practices to help students become more successful in developing noticing skills and avoiding writing errors.

**Source of delivery**

Source of delivery is one of the most common variables investigated in feedback studies pertaining to writing. It describes ‘who’ is furnishing the feedback whether that includes an instructor or a peer. As the autonomy of individual students became increasingly valued, criticisms of instructor feedback began to surface (Silva, 1991). Consequently, feedback began to be recognized as a collaborative process involving idea sharing, drafting, and revision between instructor and student. In ESL studies, instructor feedback has been found to be valued higher by students than peer feedback. Other evidence of student feedback preferences suggests students expect instructors to notice their writing errors, and when they fail to do so, feelings of resentment may arise. Overall, students hold instructor feedback in high regard, however; the way in which this student-instructor interaction influences writing development is still unclear (Ravand & Rasekh, 2011).

Similarly, the value of peer feedback has been empirically explored as it has grown into a widespread instructional practice. Researchers have noted many benefits of this method including audience awareness (Keh, 1990; Lockhart & Ng, 1995), fostering critical thinking, (Allaei & Connor, 1990; Mendonca & Johnson, 1994), avoiding error penalization (Diaz, 1991), providing an immediate response (Frankenberg-Garcia, 1999), and building a stronger learner-centered environment (Chaudron, 1984). However, criticisms of this approach exist, primarily due to the lack of authority, sophistication, and objectivity frequently demonstrated by peer reviewers (Jacobs, 1989). Moreover, students may become defensive when sharing their work and disregard the feedback relayed by their peers (Amores, 2008).

Parallels between source of delivery and other feedback variables must also be
considered. For example, students are likely to view source delivery differently in single-draft classrooms where there are no opportunities for revision versus multiple-draft classrooms where students are encouraged to regularly rethink and revise their work. Such complexities of the feedback process and the difficulty of isolating any single variable help explain why it is challenging to capture the relationship between feedback source and writing development without also considering variables such as feedback mode, types of writing errors, and timing.

**Feedback mode**

Studies have shown that different modes of feedback, such as written feedback, can be misleading students. Written feedback represents a unique dialogue of comments and revisions that often includes error corrections and margin notes (Feuerherm, 2012). The purpose of these suggestions is to help students notice gaps or patterns in their writing; however, this method does not always lead to successful revisions. Written comments may be misinterpreted, undecipherable, or unclear, (LaFontana, 1996) and students may not act on the feedback given (Norton & Norton, 2001; Ziv, 1982). Lack of specificity and overuse of criticisms are two demotivating factors that contribute to an ineffective revision process. While written feedback has been found to help students improve their writing performance compared to those who do not receive any feedback, researchers suggest more needs to be done to help students fully utilize the written feedback they are given (Razali & Jupri, 2014).

Feedback provided in oral form is another popular mode investigated by researchers in relation to the improvement of students’ writing ability. Through face-to-face conferences, oral feedback presents an opportunity for students and teachers to negotiate the meaning and context of a students’ written work. Compared to written feedback, the oral feedback process allows students to ask questions immediately and listen to their instructor’s comments rather than reading and interpreting them on paper (Fitriani, Yusuf & Kasim, 2016). In one mixed methods
study that examined the effect of oral versus written feedback on student’s writing performance, empirical and qualitative findings indicated students receive more effective feedback during conferences than they do through written feedback (Küçükali, 2017). Additionally, interview data from the study revealed students prefer oral feedback because it is “meaningful, easier to understand, and deals with individual problems and personal needs of students in writing” (Küçükali, 2017, p. 58).

Thanks to the emergence of digital technology, instructors have also turned to computer-mediated models, such as course management systems, to provide students with comments about their writing. Researchers have noted that regular use of email, discussion boards, video chats, websites, and social networks has shaped the paradigm shift of moving from paper-based written feedback to digital feedback systems. Although there has been some reluctance towards using digital feedback, studies highlighting the similarities between computer-mediated communication and handwritten comments have shown electronic feedback is effective and can lead to successful revision (Ene & Upton, 2014). However, this means the same issues that arise with written feedback also occur with electronic feedback. For example, comments or red corrections shared using various software applications may be misinterpreted and demotivate students. Additionally, students may feel overwhelmed by the services needed to access feedback (Cunningham, 2017). More research is needed to understand how students perceive computer-generated feedback as it relates to their writing.

**Types of writing concerns**

Research indicates that students are often confused by instructor feedback in terms of what types of writing errors they should concentrate on in the revision process. Differentiating between global and local writing concerns can help students identify priorities in their work (Hughes, 2019). Global writing concerns include conceptual- or structural-level planning such as
content, genre, organization, development, clarity of purpose, and audience. In contrast, local writing concerns include grammatical- and lexical-level revisions such as style, word choice, transitions, spelling, punctuation, and proofreading.

In order to isolate what areas of writing students should focus on, researchers suggest goals and task instructions are needed to inform students how to address global and local revisions. Global revisions require more time to reconsider the writing goal and involves changing information across larger sections of text (Butler & Britt, 2011). Subsequently, some instructors advocate focusing on conceptual- and structural-level revisions before turning attention to smaller corrections that involve improving sentences, words, and punctuation (Hughes, 2019). Research studies that have investigated the written communication revision process support this approach (Hayes & Flower, 1986; Sommers, 1980; Wallace, Hayes, Hatch, Miller, Moser & Silk, 1996). Experienced writers have been found to revise their work recursively throughout the writing process, modify their writing more often, and make more global revisions compared to less skilled writers (Butler & Britt, 2011).

**Feedback timing**

Finally, investigations related to feedback timing have stimulated a debate as to whether delayed feedback or immediate feedback is more effective in addressing students’ writing errors. While some researchers support immediate feedback as a method for preventing errors and improving retention, others argue that delayed feedback is superior in facilitating long-term learning. Referred to as the delay-retention effect, delayed feedback is thought to reduce interference, allowing students to process and retain the steps for correction rather than focusing on the initial error (Kulhavy & Anderson, 1972). A review of feedback timing studies conducted by Mathan and Koedinger (2002) concluded the effectiveness of feedback depends less on timing and more on the nature of the task and the skill level of the learner. Both timing
approaches have been found to be beneficial when relaying feedback to students, however additional research may provide insights as to which method students prefer when it comes to their writing.

As evidenced by Waller and Papi (2017), theories of implicit intelligence provide a useful framework for examining the role of feedback in students’ writing and identifying their feedback orientations and preferences. The conceptualization of this framework in the field of agricultural communications may prove equally useful. Although there is perhaps no best type of feedback for all learners and learning outcomes, a multi-dimensional view of feedback, including variables such as source delivery, mode, types of writing errors, and timing as well as the individual characteristics of the learner, is needed to better connect students to the form of feedback that best suits their skill level and learning style. Uncovering patterns in feedback preferences may also inform what practices can be used to help agricultural communications students become more effective at using the feedback they receive and how they understand the nature and quality of feedback messages as they approach the revision process. This gap in how agricultural communications students perceive the quality and usefulness of feedback informed the third stream of literature on the relationship between feedback, motivation, and revision strategies.

**Theoretical Intersection of Feedback, Revision and Self-Determined Motivation**

The intersection of motivation research and writing studies presents a relatively new theoretical framework for exploring feedback and revision (Hidi & Boscolo, 2007). Over the past three decades, researchers have started to recognize motivational issues in academic writing, generating an interest in studies relating to students’ affective responses in their learning environment (Hidi, 1991; Renninger, Hidi, & Krapp, 1992), their perceived ability to compose good text (Pajares & Johnson, 1994; Schunk & Schwartz, 1993; Zimmerman & Bandura, 1994), and their control of time and resources (Zimmerman & Kitsantas, 2002; Zimmerman &
Risemberg, 1997). This crossroads between motivation and writing continues to be an important gap to bridge as the act of writing, in and of itself, is not enough to achieve writing proficiency. Writers typically operate under solitary conditions and are repeatedly tasked with revising their work, sometimes with little reward for their output (Zimmerman & Kitsantas, 2007). High levels of self-determination, as well as self-efficacy and feelings of competence, are needed for writers to persist in the writing and revision process (Townsend, 2014).

Self-determination theory (SDT) provides one perspective for understanding how feedback increases self-determined motivation within the domain of writing. As a parallel strand of literature to social cognitive theory and theories of writing intelligence, SDT connects the constructs of self-efficacy, competence, and self-determination. Research guided by these theories has established writing is an emotional and cognitive activity influencing self-efficacy as well as affective components of the writing process, such as the type of feedback students receive. SDT can be used to further explore the quality of feedback and what motivates students to continue writing as they move along the revision process.

Self-determination is defined by Deci and Ryan (2002) as the process of exercising one’s will to complete a task or satisfy a need. SDT therefore, seeks to capture the persistent, proactive, and positive tendencies of human nature as well as the social contexts that may diminish this drive or sense of agency. Moreover, it is an approach to human motivation and personality that addresses three innate psychological needs including competence, autonomy, and relatedness. The degree to which individuals are motivated to continually learn and engage in new experiences is directly related to feelings of fulfillment formed by these psychological needs (Townsend, 2014).
Competence, for example, concerns an individual’s need to be effective in dealing with their environment and developing mastery over tasks they deem important. When achievements, knowledge or skills are realized, an individual is more likely to repeat the task, which in turn, increases competence. Autonomy, on the other hand, is the need to govern the course of one’s life. This includes both the desire to control one’s destiny as well as their behavior. Finally, relatedness refers to the need for interaction and building meaningful relationships with others, characterizing the sense of belonging and connectedness humans seek. Together, these components of human functioning serve as a basis for self-motivation and are essential for facilitating optimal growth, integration, constructive social development, and personal well-being (Ryan & Deci, 2000).

SDT theorizes there are two main types of motivation that cause individuals to act – intrinsic motivation and extrinsic motivation. The concept of intrinsic motivation is stimulated by feelings of competence, autonomy and relatedness and the innate human tendency to move towards growth. Ryan and Deci (2000) describe it as a phenomenon that reflects the “positive potential of human nature” (p. 70). Individuals who are intrinsically motivated have a predisposition for seeking out novelty and challenges, and extending and exercising their abilities. This inclination toward assimilation, mastery, and spontaneity is essential to cognitive and social development and serves as a principal source of engagement, ambition, and satisfaction (Ryan & Deci, 2000).

Research within the realm of intrinsic motivation has traditionally focused on issues of autonomy rather than competence or relatedness, beginning with a recognition of how forces of extrinsic motivation can undermine intrinsic impulses. Extrinsic motivation is a behavior driven by external rewards or outcome avoidance. For example, threats, deadlines, or directives can
influence an individual’s determination to complete a task or activity. As behavior becomes increasingly controlled by external rewards, people’s sense of autonomy decreases, diminishing their intrinsic motivation. Extrinsic motivation, however, does not always lead to negative outcomes. For instance, extrinsic rewards can promote interest, value or effort toward a skill not previously achieved. Thus, under SDT, motivation is treated as a fluid construct influenced by a multitude of factors that result in highly varied experiences and consequences (Ryan & Deci, 2000). This basic dimension of how people make sense of their behavior can be applied within many learning environments and contexts, including writing.

**Impact of feedback on competence, autonomy, and relatedness**

According to Townsend (2014), existing research has not fully investigated the implications of SDT, or the fulfillment of basic psychological needs, when considering the effects of feedback on motivation and revision in the domain of writing. While it is known feedback is an important affective component of the writing process, researchers have yet to explore how feedback promotes students’ perceived competence, autonomy, and relatedness. For example, when students receive marked-up pages with multiple corrections, they may be overwhelmed or experience feelings of inadequacy, diminishing their competence and autonomy or reducing their sense of relatedness with their instructor. In other cases, students may perceive these corrections as a challenge and recognize the time their instructor took to provide them with adequate feedback, positively influencing their competence and autonomy and satisfying their need for relatedness. Therefore, writing research could be more effective if these psychological needs are considered given the inconsistencies of feedback and individual learner preferences.

Using SDT, Townsend (2014) presents four areas for exploring the impact of feedback on autonomy, competence, and relatedness. These areas reflect the quality and usefulness of feedback not only from a content perspective, but from students’ acceptance or their receptivity
toward feedback, and the level of analysis applied to student work. The four considerations include 1.) direct vs. indirect feedback, 2.) praise vs. criticism, 3.) individual intelligence vs. social comparison and 4.) process and progress feedback. A discussion of these feedback practices reveals how such debates may be resolved if researchers focus on whether students’ basic psychological needs are being met over other outcomes.

**Direct vs. indirect feedback**

The first area of debate for improving feedback’s contribution to revision strategies deals with the level of depth or explanation given and whether the feedback is direct or indirect. Whereas direct feedback includes an explanation or description of the mistakes made or corrections needed, indirect feedback provides mark-ups with descriptions that are vague or completely absent from students’ work. Supporters of indirect feedback suggest this approach requires students to think critically about their corrections, leaving a lasting impact for future learning (English, 1997; Goswami, 1992; Halford, 1993). Those in opposition, however, argue indirect feedback does not provide students with enough information to properly identify their mistakes and make corrections. As a result, they may become frustrated, confused and give up on the task of revising their work (Brown & Campione, 1994; Cho, Schunn, & Charney 2006; Hardiman, Pollastek & Well, 1986). Students must be able to make sense of what issues or patterns they need to address in their writing so that they can understand the relevance or significance of the feedback they have received. In fact, some studies have shown direct feedback leads to less confusion and increased learning than indirect feedback or no feedback at all (Baker & Bricker, 2010; Bitchener, 2008; Moreno, 2004).

Studies have also demonstrated indirect feedback may be harmful to motivation. In one study by Lipstein and Reinnger (2007), students who received feedback that was too discrepant (i.e., indirect or unclear) indicated they became less interested in writing overall. When applied
within the lens of SDT, this lack of interest reflects a reduction in intrinsic motivation, leading to lowered competence. There are various other ways the debate over direct and indirect feedback can consider students’ psychological needs. For example, indirect feedback may promote autonomy in the learning process if beliefs about one’s competence are not threatened. Contrastingly, too much direct feedback may overwhelm students, creating uncertainty, and reducing competence (Townsend, 2014). Further research is needed on the effects of direct versus indirect feedback to inform how students perceive the quality and usefulness of feedback and the ways in which the level of depth and explanation can improve motivation as they approach the revision process.

**Praise vs. criticism**

A second debate on the effects of feedback presented by Townsend (2014) focuses on the difference between praise, or positive feedback, and criticism, or negative feedback. In one early study, praise was found to decrease intrinsic motivation (Smith, 1974). Other studies have demonstrated negative criticism or no feedback discourages students from writing (Gee, 1972). In both instances, students’ competence may be jeopardized. In other cases, praise may cause students to develop a false sense of validation, further demonstrating that positive feedback may not always be an effective tool for motivation and revision (Henderlong & Lepper, 2002).

Based on SDT, a student dependent on external validation may lead to a lack of self-determination, especially if the praise is perceived as controlling or threatening (Morf & Rhodewalt, 2001; Thomaes, Brummelman, Albert & Bushman, 2013). Additionally, it may pose a threat to one’s autonomy (Townsend, 2014). In contrast, negative feedback in the form of constructive criticism can be more motivating than praise, causing students to focus more meticulously on preventing mistakes in their writing. The dichotomy of the praise versus criticism debate reveals one approach is not necessarily more successful than the other when it
comes to improving students’ writing motivation and revision strategies. That’s why students’ receptivity toward feedback must also be considered to understand its quality and usefulness.

**Individual intelligence vs. social comparison**

Townsend (2014) describes a third disputed area on the effects of feedback as the “what” of feedback, or what is being praised or criticized such as a student’s individual intelligence versus social comparisons of their performance. In cases where feedback is directed towards individual intelligence, a student may develop vulnerabilities including feelings of helplessness, lack of competence or an inability to cope with setbacks (Dweck, 1996; Shell, Colvin & Bruning, 1995). Research by Dweck (1996) demonstrated that when students experienced failure, their intrinsic motivation decreased significantly. As evidenced by SDT, students dealing with these feelings of ineptness may also purposefully hide their inadequacies to maintain their outward image and preserve relatedness with others (Townsend, 2014).

Social comparison of students’ performance has also been found to produce vulnerabilities and create negative consequences on their receptiveness toward feedback (Corpus, Ogle & Love-Geiger, 2006; Krampen, 1987) Social comparison focuses on student accomplishments as they relate to peers, highlighting an individual’s strengths and weaknesses compared to the rest of the group. Subsequently, students may develop insecurities, becoming uncertain about the quality of their achievements (Henderlong & Lepper, 2002) and losing intrinsic interest and motivation (Deci & Ryan, 1992). From an SDT perspective, this approach can damage competence, autonomy, and relatedness by setting an expectation for feedback that is extrinsically motivated and fostering a competitive environment. Although both individual intelligence and social comparison may result in short-term benefits that increase motivation and revision, there are potential risks for providing feedback that focuses on personal traits and normative standing (Townsend, 2014).
**Process and progress feedback**

A final area on the effects of feedback distinguishes process and progress feedback from individual intelligence or social comparison as the efforts and strategies used by students to complete their work. Examples of process or progress strategies include the amount of energy put into a project, level of commitment, dedication to deadlines, creating a conducive environment for writing, and asking for help. Compared to the personal traits examined in an individual intelligence vs. social comparison level of analysis, students’ efforts and strategies are controllable and have the potential to increase feelings of competence, autonomy and relatedness (Townsend, 2014). In effect, process and progress feedback promotes a mastery-orientation to seek challenging tasks and persist when setbacks, such as writer’s block, are encountered. Ultimately, process- and progress-oriented dimensions can lead to goal satisfaction, allowing students to feel accepting of any setbacks they may have experienced (Dweck, 1996).

According to Townsend (2014), “when the focus is on students’ success, not with the end-product per se, but with their efforts in the process, then this becomes their goal to master”, (p. 27). As a result, process and progress feedback can increase efforts and strategies in the self-correction process. This may translate into improved ability to manage time, overcome procrastination, and stick to deadlines. Such skills are critical for students as writing often requires multiple drafts and revisions (Corpus & Lepper, 2002). Through the lens of SDT, if students don’t feel their psychological needs are being met, they might not feel motivated to continue writing (Deci & Ryan, 2008). Conversely, students who feel they can monitor and self-evaluate their progress will experience improved motivation; increasing their competence as they develop skills, instilling a sense of autonomy as they become more self-aware of their progress, and enhancing relatedness through more meaningful student-instructor relations (Schunk, 2001).
The intersection of feedback, motivation, and self-determination is a complex paradigm within the domain of writing because its impact on students’ autonomy, competence, and relatedness can have multiple outcomes. SDT helps provide some clarity on the matter by providing a framework for understanding how feedback fulfills these needs and effects students’ intrinsic and extrinsic motivation. As stated by Townsend (2014), “if we cannot be certain that these basic psychological needs are being met, then we cannot be certain that motivation has improved” (p. 22). Furthermore, Townsend’s (2014) application of SDT highlights how level of depth and explanation (i.e., direct vs. indirect feedback), student receptivity toward feedback (i.e., praise vs. criticism) and levels of analysis (i.e., individual intelligence vs. social comparison and process and progress feedback) can be used to draw connections between motivation and feedback. In the present study, this was a useful tool for examining how agricultural communications students process and respond to the feedback they receive and what practices can be implemented to motivate them as they approach the revision process.

In conclusion, a review of prominent theories of how writing develops was conducted to inform the purpose and objectives of the present research study. These theories and related constructs include social cognitive theory and the concept of self-efficacy, theories of intelligence and the nature of feedback, and self-determination theory as a theoretical intersection between feedback, revision, and self-determined motivation. Figure 2.1 summarizes the review of literature and consists of three main categories: 1.) agricultural communications students perceptions of their writing self-efficacy, 2.) factors influencing students’ feedback preferences, and 3.) factors that diminish or drive students’ self-determined motivation to write. It also serves as the conceptual framework for this dissertation.
A broader, more holistic view of writing development is needed to enhance the essential writing skills required of agricultural communications graduates. Self-efficacy, feedback, and self-determined motivation are three related dimensions of the writing process that can present a comprehensive view of the cognitive, emotional, and affective factors involved while providing a practical approach for addressing agricultural communications students’ writing skill deficiencies. Additionally, by using a prominent writing theory, such as social cognitive theory, as well as theories of implicit intelligence and self-determination theory as two parallels strands of literature, the current study seeks to expand critical inquiry and increase the theoretical rigor of the agricultural communications discipline. Moreover, the study builds upon existing agricultural communications research pertaining to feedback and self-efficacy studies, and provides a new perspective for considering not only what types of feedback students find motivating, but also what feedback factors diminish or drive their self-determined motivation to continue writing.
ROLE OF FEEDBACK ON WRITING
SELF-EFFICACY & SELF-DETERMINED MOTIVATION

Factors Influencing Students’ Feedback Preferences

Feedback orientations:
- Feedback seeking
- Feedback avoidance

Types of feedback:
- Source of delivery (peer or instructor)
- Mode (written, verbal, digital)
- Types of writing errors (global and local writing concerns)
- Timing (delayed or immediate)

Theories of Implicit Intelligence
(Dweck, 2000)

Students’ Perceptions of Writing Self-Efficacy

Sources of self-efficacy and beliefs about writing:
- Mastery experience
- Vicarious experience
- Social persuasion
- Physiological and emotional states

Alternative sources:
- Self-regulated writing strategies
- Types of writing

Social Cognitive Theory
(Bandura, 1977)
(Usher, 2009)
(Holmes, 2016)

Factors that Diminish or Drive Self-Determined Motivation to Write

Self-determined motivation:
- Intrinsic motivation
- Extrinsic motivation

Basic psychological needs:
- Competence
- Autonomy
- Relatedness

Feedback factors:
- Direct vs. indirect
- Praise vs. criticism
- Individual intelligence vs. social comparison
- Process and progress

Self-Determination Theory
(Deci and Ryan, 2002)

Figure 2.1 Conceptual Framework
CHAPTER 3. METHODS

This study used a qualitative research design to examine the role of feedback in agricultural communications students’ writing self-efficacy and motivation. Given the lack of research that exists regarding the role of feedback on students’ writing within the agricultural communications discipline, phenomenology was a fitting methodological approach for uncovering meaning and gaining understanding about this phenomenon. As a form of qualitative investigation that “describes the richness of content in human complexities” (Padilla-Díaz, 2015, p. 103), phenomenology involves capturing experiences shared by a group of individuals, in this case how agricultural communications students experience self-efficacy and feedback pertaining to their writing. Phenomenological qualitative methods allow researchers to study phenomena and attempt to understand how people interpret or make sense of their world (Denzin & Lincoln, 2011). Additionally, they are useful when a “complex, detailed understanding of the issue is needed” (Creswell & Poth, 2018, p. 46), making this a useful approach for describing the essence of agricultural communications students’ experiences with writing. The following recruitment, data collection, and analysis procedures were used to gain student perspectives about the sources that shape their writing self-efficacy, their feedback preferences, and the factors that influence their self-determined motivation to write.

Recruitment

The population of interest for this study included junior and senior agricultural communications undergraduate students at ISU. The agricultural education program at ISU is uniquely positioned in that it encompasses both teacher certification and communications options. As noted by Tucker et al., (2003), agricultural communications has assumed many of the same curricular characteristics as agricultural education, which often serves as a parent
discipline. At ISU, the teacher certification and communications curricular tracks require agricultural science and social science courses, and students in both tracks have the opportunity to take a number of communications-related courses. Thus, for the purpose of this study, the invitation to participate was extended to the general agricultural education and life sciences student population and was not limited to a specific curricular track. The invitation to participate was also carefully crafted to recruit participants who share career interests in communications as well as broader aspirations to share agriculture’s story. An emphasis on upperclassmen allowed the researcher to focus on students who have more experiences to draw on when describing the nature or quality of the feedback they have received at the college level. This was an important consideration as the agricultural communications curriculum includes a variety of communications and agricultural science courses. Therefore, as students progress through the curriculum they receive a wide range of feedback from instructors with different academic backgrounds and expertise. Additionally, a more refined sample excluding freshman and sophomore students provided a greater level of detail and contextualization for realizing the desired outcomes of the study (Neubauer, Witkop & Varpio, 2019).

Participants were identified using purposeful sampling via email invitation. Purposeful sampling “is based on the assumption that the investigator wants to discover, understand and gain insight and therefore must select a sample from which the most can be learned” (Merriam & Tisdell, 2016, p. 96). To initiate the recruitment process, an email was sent to all teacher certification and communications option students at the beginning of the fall 2019 semester (See Appendix B). The email list used to contact students consisted of 201 total students, 115 of which were classified as upperclassman. However, it is important to note that due to the nature of enrollment statistics, the number of qualified participants may have been skewed as freshman
and transfer students often have additional credit hours that place them at a higher classification. Juniors and seniors over the age of 18 were invited to participate in the study. Two follow-up emails were sent following the initial invitation to participate. As a result, three students contacted the researcher and indicated they were interested in participating in the study.

The researcher then used snowball sampling, a form of purposeful sampling, to recruit additional participants. As early participants were interviewed, they were asked to refer the researcher to other junior and senior agricultural communications peers, allowing the researcher to expand the network of students and gain insights from other information-rich interviews (Merriam & Tisdell, 2016). This recruitment strategy occurred throughout the remainder of the fall semester and into the early spring semester. Forty juniors and seniors were identified using snowball sampling, and 10 additional students agreed to participate in the study. Personalized emails were sent to all potential leads (See Appendix B), and recruitment efforts ended in late February. Creswell (1998) suggests that phenomenological studies should consist of three to 15 members. In addition to adhering to this general rule of thumb, the researcher determined data saturation had been reached when no new information or potential themes were observed in the interview data (Guest, Bunce & Johnson, 2006). An incentive of a $25 Amazon gift card was offered to eligible candidates who participated in both interviews required of the study.

Of the 13 total agricultural communication students interviewed, six participants were juniors and seven were seniors. Other notable characteristics included three participants who reported they had transferred to ISU from community colleges and two participants who indicated they had at one time pursued agricultural education teacher certification. One student was enrolled in the teacher certification track at the time of the interviews. The respondent self-identified as an agricultural communications student and indicated she had enrolled in some of
the same courses as her agricultural communications peers. Additionally, all participants were female. These participant characteristics are summarized in Table 3.1. Because the study involved human subjects, IRB approval was obtained prior to data collection (See Appendix A).

Table 3.1. Participant Characteristics

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Curricular Track</th>
<th>Year</th>
<th>Transfer Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harley</td>
<td>Agricultural communications</td>
<td>Junior</td>
<td>No</td>
</tr>
<tr>
<td>Abby</td>
<td>Agricultural communications</td>
<td>Senior</td>
<td>Yes</td>
</tr>
<tr>
<td>Emery</td>
<td>Agricultural communications</td>
<td>Senior</td>
<td>No</td>
</tr>
<tr>
<td>Callie</td>
<td>Agricultural education</td>
<td>Senior</td>
<td>No</td>
</tr>
<tr>
<td>Faith</td>
<td>Agricultural communications</td>
<td>Junior</td>
<td>Yes</td>
</tr>
<tr>
<td>Lilly</td>
<td>Agricultural communications</td>
<td>Junior</td>
<td>No</td>
</tr>
<tr>
<td>Bella</td>
<td>Agricultural communications</td>
<td>Senior</td>
<td>No</td>
</tr>
<tr>
<td>Jasmine</td>
<td>Agricultural communications</td>
<td>Junior</td>
<td>No</td>
</tr>
<tr>
<td>Georgia</td>
<td>Agricultural communications</td>
<td>Senior</td>
<td>No</td>
</tr>
<tr>
<td>Kim</td>
<td>Agricultural communications</td>
<td>Junior</td>
<td>Yes</td>
</tr>
<tr>
<td>Dani</td>
<td>Agricultural communications</td>
<td>Senior</td>
<td>No</td>
</tr>
<tr>
<td>Molly</td>
<td>Agricultural communications</td>
<td>Senior</td>
<td>No</td>
</tr>
<tr>
<td>Isabelle</td>
<td>Agricultural communications</td>
<td>Junior</td>
<td>No</td>
</tr>
</tbody>
</table>

Data Collection

The primary method of data collection involved two one-on-one interviews. Interviews were scheduled based on student availability throughout the fall and early spring semester, and were held in private conference rooms on campus. Each interview lasted up to one hour. While the first interview asked students to describe their writing self-efficacy in relation to their past writing performance, the types of courses they enroll in, and the forms of feedback they receive, the second interview focused on students’ interactions with feedback and how they internalize feedback messages to inform their writing beliefs. Prior to the second interview, participants were also asked to submit three writing samples along with a reflective exercise summarizing how each sample represented a time they experienced varying degrees of self-efficacy, ranging from high to low (See Appendix C). These writing samples were used to help prompt students into thinking about their different experiences with writing and receiving feedback. Students
were asked to remove all personal identifiers from their writing samples to ensure confidentiality.

A semi-structured interview format was used in conjunction with a list of guided questions to afford the researcher the flexibility to clarify responses and ask additional questions that emerged during the course of the interviews (Glesne, 2011). The interview guides consisted of questions concerning the types of writing participants experience in their courses, the way they perceive themselves as writers, and how their instructors approach writing instruction (See Appendix C). A panel of four experts with backgrounds in agricultural communications and interdisciplinary writing were asked to review the interview protocol prior to data collection. The qualifications of these individuals included three agricultural communications faculty with specializations in student preferences and attitudes research, persuasion and message testing, writing and English composition, and agricultural industry trends and employee qualifications. A fourth panelist with a background in English from outside the agricultural communications discipline provided additional insights from the perspective of engaging in a range of writing situations with diverse audiences. This step was taken to enhance the reliability of the study, ensure clarity, and anticipate potential interview responses (Yeong, Ismail, Ismail & Hamzah, 2018). Additionally, the interview protocol was pilot tested with two students from the population of interest to ensure the research objectives could be met using the instrument. One student was enrolled in the agricultural communications option while the other was pursuing the agricultural education track. Both students were seniors at ISU. Minor revisions were made to the interview protocol to add clarity and avoid misinterpretations. For example, scholarly jargon was replaced with simple language. Interviews were preferred for this study instead of focus groups because writing is an individual task that can trigger feelings of inadequacy for students
who experience low efficacy characteristics (Walker, 2003). Therefore, one-on-one interviews provided a safer, more comfortable environment for respondents who consented to participate in the study. Following data collection, interviews were audio-recorded and transcribed using Rev.com, an online transcription service, and each participant was provided a pseudonym to ensure confidentiality. This step allowed the researcher to present rich, personal accounts without compromising respondents’ identities (Kaiser, 2009).

**Data Analysis**

Using the constant comparative method, transcripts were analyzed by the researcher and a team of external coders using open and axial coding to generate codes or smaller units of meaning. Segments of data were derived inductively and compared with one another to determine their similarities and differences. As patterns and relationships among the data emerged, codes that shared a similar dimension were grouped together. This systematic process of comparing codes and grouping categories, referred to as thematic analysis, was used to identify emerging themes. The goal of thematic analysis is to identify patterns in the data. However, this requires more than a simple summarization. A good thematic analysis goes a step further by interpreting such patterns and making sense of the data (Maguire & Delahunt, 2017). According to Braun and Clark (2006), data can be distinguished by two levels of themes: semantic or latent. While semantic themes represent surface level meanings of any statement spoken or written by participants, latent themes take a deeper dive into the underlying ideas or assumptions that may be theorized from these statements. For this study, the researcher applied a latent thematic approach using keywords or phrases as the unit of analysis to shape the findings into a final narrative (Creswell & Poth, 2018).

The first step involved in thematic analysis includes becoming familiar with the data (Maguire & Delahunt, 2017). After reading the interview transcripts and making notes of early
impressions, the researcher and external coding team worked individually to generate initial codes that addressed the specific research questions of the present study. Line by line coding was used to complete an inductive analysis of the data. This means that no pre-set codes were used to guide the study. Therefore, the themes that were derived aimed to capture patterns of codes that recurred in the data. Once the preliminary themes were identified, the researcher worked with the external coding team to gather all data that was relevant to each theme and discuss how well the themes were supported by the data set. Multiple perspectives were needed to work within the entire context of the data set, and assumptions or prejudices were bracketed and set aside to allow all units of data to be treated with equal weight or value during data analysis. This process, called horizontalization, involves “an interweaving of person, conscious experience and the phenomenon” (Moustakas, p. 96, 1994) to arrive at themes that are descriptive and represent the essence of the experience being studied (Merriam & Tisdale, 2016). Although few discrepancies existed between coding members as the themes and subthemes were generated, any overlap or inconsistencies were addressed through thorough discussions about how the themes were derived and interpreted. After consensus was reached, the themes were defined, named, and relevant data and quotes were gathered. These quotes were selected based on the key words or phrases they contained identifying the essence or latent meaning of each theme. Together, the quotes created a thematic map illustrating how the major themes and subthemes interacted and related to one another (Braun & Clarke, 2006). Additionally, the quotes provided answers to the research questions being addressed and were used to form the final narrative reported in this study.

In an effort to meet the qualitative research criteria proposed by Lincoln and Guba (1985), several steps were taken to ensure the credibility, transferability, dependability and confirmability of the study. These criteria refer to the confidence that can be placed in the
research findings, the degree to which they can be transferred to other contexts or settings, the stability or consistency of the findings, and the degree to which the results can be corroborated by other researchers (Lincoln & Guba, 1985). Credibility was established through pilot testing of the interview protocol and member checking, which involved follow-up interviews with each research participant where they were asked to affirm earlier statements made in the first interview. Transferability was achieved through rich description of the phenomenon under investigation, enabling other researchers to compare instances of the phenomenon in subsequent studies. To ensure dependability, an audit trail consisting of instrument development materials, interview audio recordings, transcripts, field notes and information relating to the synthesis of findings was maintained to authenticate how the data were collected, how categories were derived, and how decisions were made throughout the study (Merriam & Tisdell, 2016). This audit trail was also used to enhance the confirmability of the study along with the implementation of investigator triangulation through the inclusion of external coders to compare findings and avoid biases.

A team of external coders were trained and recruited to assist with codebook development, increasing coding accuracy and the reliability of the study through rich data analysis that may not have otherwise been achieved by the researcher alone. This team of coders consisted of six graduates of ISU with backgrounds in marketing, education, and communication. Three of the six external coders were also graduates of the agricultural communications option at ISU. Prior to data analysis, the coding team was introduced to the background of the research project, including the purpose and objectives of the study. The researcher worked with coders individually to walk them through the steps of conducting an inductive thematic analysis and provided examples of qualitative coding. Coders were instructed
to read and review their assigned transcripts, highlight key words or phrases that related to the research questions, and enter the key words or phrases into their codebook along with notes identifying the exact interview and page number where the key words or phrases were sourced. Each coder was designated their own codebook using a secure online excel file and asked to review eight transcripts, or four sets of interviews. Two coders were asked to review 10 transcripts, or five sets of interviews. The primary investigator served as the lead coder and reviewed all 26 transcripts, or 13 sets of interviews conducted with the research participants. Following data analysis, all codebooks were culminated into one document where notes and coding schemes were compared for frequency and consistency. Overall, there was consensus among the coding team, however a few diverging interpretations were noted. For example, within a coding scheme concerning feedback tone, the coding team questioned the inclusion of student-instructor relationships as a related subtheme. After revisiting the original transcripts and margin notes, it was decided that due to the frequency and contextualization of the data, student-instructor relationships should be separated into its own category. Similarly, the naming of categories were debated; however, through discussions among the coding team an agreement was made to name the themes so that they were congruent with the literature and responsive to the orientation of the study. While the use of multi-coder teams requires developing shared meaning around the resulting themes, “including multiple people in the qualitative research coding process is an important component of perceived reliability of research conclusions” (Church, Dunn & Prokopy, p. 11, 2019). In the present study, this was a critical step for improving data quality and mitigating the subjectivity and bias of the primary investigator.
CHAPTER 4. FINDINGS

The purpose of this study was to examine the role of feedback in the development of agricultural communications students’ writing self-efficacy and self-determined motivation within the context of the courses they enroll in at ISU. Several major themes emerged as a result of the study outlining the underlying factors that inform agricultural communications students’ self-efficacy beliefs, their preferences and attitudes toward different types of feedback practices, and how feedback influences their motivation to write. This chapter will present the findings for each of the three research questions that guided the study.

Research Question One: Factors that Influence Self-Efficacy

What sources of information influence agricultural communications students’ writing self-efficacy? The findings of the study revealed seven major themes identifying the underlying factors that inform agricultural communications students’ self-efficacy beliefs. The first two themes (writing performance and background, modeling and assignment expectations) aligned with Bandura’s hypothesized sources of mastery experience and vicarious experience; however, the interviews revealed a deeper interpretation of how students experience successes and failures and different forms of modeling in their writing. Subsequently, these themes were named using broader terms to encompass students’ mastery and vicarious experiences as well as other underlying factors such as grades, quality of early writing education, and rubric guidelines. Because the third and fourth themes more closely aligned with Bandura’s sources of self-efficacy (social persuasion, physiological and emotional states), they were named to be congruent with the literature. The fifth and sixth themes (self-regulated writing strategies, types of writing) expanded upon Bandura’s framework echoing studies by Holmes (2016) and Usher (2009). Finally, a seventh theme that surfaced from the present study explored a new source of
information providing an additional direction for self-efficacy research. Figure 4.1 summarizes the major themes and subthemes that correspond to research question one. Categories represented in green indicate sources of self-efficacy not previously noted or explained in the literature.

Figure 4.1. Sources of Agricultural Communications Students' Writing Self-Efficacy

**Theme One: Writing Performance and Background**

One of the primary ways participants described their writing self-efficacy was through their interpretations of past writing performance and background. The findings revealed three specific subthemes including mastery experience, grade complex, and quality of early writing education.

**Mastery experience**

Rather than focusing on failures or setbacks, many students nurtured a growth mindset by concentrating on outcomes of past mastery experiences they deemed to be successful. Students revealed their mastery experiences had a positive effect on their writing self-efficacy even if the experiences were initially uncomfortable and involved developing a new skill, such as adopting a new writing style. For example, Bella shared how writing her first news story made her feel more confident in her ability to master other writing styles. “I had never written a news report before. I
think it showed me my skills improved and that I can do this type of writing. It opened my eyes to different writing styles.” Another student, Abby, recalled the sense of accomplishment she felt when working on her first feature story.

I didn’t have any experience with communications practices before, so to put together a photo, a cutline and a very clear one-page story was a proud moment for me. It was my very first feature story and it’s still on my online portfolio.

**Grade complex**

Another way students interpreted their past writing performance was through benchmarks like grades or scores. Students frequently mentioned using grades as an indication of whether their experiences with writing were successful or unsuccessful. When asked how grades impact writing self-efficacy, Callie confirmed that while grades help build confidence, they do not always reflect the quality of her writing. She explained this paradox occurs because her instructors tend to use criterion-based grading instead of a holistic approach. “Grades are a confidence factor, but it’s difficult to say that it reflects your writing because [instructors] are usually looking at the assignment, not the writing itself.” Meanwhile, other students use grades to validate their success, even when they disagree with their instructor’s remarks or feel poorly about the quality of their work. Faith shared how she struggled to justify her grade on a difficult writing assignment. “I felt like I didn't do good at all, but my grade proves different. I don’t know if my professor just didn’t fully read the assignment…I did work really hard on the paper.” This demonstrated just how strongly grades can influence students’ interpretations of their mastery experience, or their successes and failures.

**Quality of early writing education**

Similar to students’ interpretations of grades and their experiences with successes and setbacks, the quality of their early writing education was found to be another contributing factor
influencing their writing self-efficacy. Although a majority of students said they were well-equipped to engage in college level writing, several students suggested their early writing education placed them at a disadvantage, limiting their potential to succeed. Harley said:

Growing up, I hated writing...and sometimes today I still contemplate on where I fall on that degree of liking or disliking it. My school really didn't give me a strong foundation in writing. That affected me when I got into college...I still wouldn't say I'm a strong writer, but I'm much better than I was.

Other students concurred, sharing how their individual educational backgrounds left them feeling behind or unprepared to complete basic writing tasks, such as putting together a thesis statement. Compared to their peers, it was more difficult for students who encountered educational setbacks to develop their self-efficacy and improve their writing in a faster-paced learning environment. However, students demonstrated their ability to persevere through these obstacles. For instance, Faith shared how her time at community college allowed her to make a smoother transition. “I definitely feel like I have improved through more writing practice going from DMACC to ISU. Iowa State expects more professional writing, longer assignments, and better grammar and word usage. I feel like I have progressed greatly.”

**Theme Two: Modeling and Assignment Expectations**

A second way students expressed their writing self-efficacy was through modeling or observing the success and failures of others, such as their instructors or peers, and meeting assignment expectations.

**Instructor modeling**

A number of students noted how difficult it is for them to model writing after their professors because no two instructors use the same approach when teaching writing. Consequently, instructor modeling often requires adopting a new writing style, which can
weaken self-efficacy beliefs. Jasmine said: “It’s hard to change your style for each professor. One class might be very fact-based, so they don’t want that fluff or extra wording…whereas another professor expects more of an over-explanation…that doesn’t help my writing.”

Additionally, students voiced their frustration in patterning their writing after their instructors, especially when writing about controversial topics. Some students said they are fearful their work will be graded more harshly if they present a dissenting argument that does not model their instructor’s opinion or expectations. As a result, students write from the viewpoint of what they think their instructors want to hear rather than using an authentic voice. Callie described her experience modeling her instructors’ writing styles: You write to what the professor wants to hear instead of what you think you should write…if you are on the wrong side of the controversy, you are graded a little bit more harshly.”

**Rubric guidelines**

Similarly, students frequently noted the use of rubrics as a form of modeling in the classroom. However, students shared how this approach can also be problematic. Harley said: “Generally, professors will give you a rubric and go over the outline of what they expect the writing assignment to look like in the end, but they don’t give you any clue as far as how you should go about it.” Abby stated similarly: “When the rubric guidelines are not clearly stated it sets me up for failure because I don’t know what the professor wants to see in a paper.”

Furthermore, when asked how instructors could improve modeling their approaches to writing, Isabelle said:

Most instructors could make their rubric outlines more clear. When it’s unclear, and you get a score you don’t anticipate, it can be really confusing as to why you got that score when you don’t know what they wanted in the first place. Rubrics should help explain the reasons you did well or the things you need to work on in your writing.
Student work samples

Although instructor modeling and unclear rubric guidelines did not have a positive impact on students’ writing self-efficacy, there are ways students have learned to compensate for these limiting modeling experiences and assignment expectations. For instance, some students rely on student work samples as a form of modeling. According to Georgia, observing previous work submitted by peers is a helpful tool for evaluating her writing. “I really enjoy it when instructors have examples they have held onto…something a student did that was really well done and it's what they want you to shoot for…it helps with my writing, especially with things I’ve never written before.” In instances where samples are not available, students seek out their own examples from peers or on the Internet. When these samples are provided, students say they are able to better understand their instructor’s expectations and are more likely to retain what they have learned. Bella said:

When instructors explain the assignment thoroughly and then also share a lot of examples, it helps me understand what exactly they're looking for in their papers. There is better recall or longevity in the skills you learned because you had that example to go off of.

Theme Three: Social Persuasion

Another way students substantiated their beliefs about writing was through verbal messages, or other forms of feedback, and general statements about their perceived value of writing.

Feedback messages

Many students emphasized the influential role feedback has played in building their confidence and improving their writing skills. Dani said: “I feel like writing is one of my strong suits in the ag comm field. I've received pretty good feedback about my writing, which has
helped me grow my confidence.” For students who do not recognize writing as one of their top skills, praise and recognition have an even greater impact on writing self-efficacy because these students tend to view feedback in a negative way. However, not all students are unaccepting of constructive criticism. Many recognized the positive outcomes of feedback and its function to help rather than hurt their writing self-efficacy. Isabelle shared a personal example of how feedback can sometimes be a needed reality check.

When you come into college all high and mighty on yourself, there's 36,000 other students that are all in the same position as you and you take a step back. You realize you still have abilities, but you become more willing to take criticism and feedback to improve. So I think that's helped my writing get better.

**Perceived value of writing**

In contrast, when it comes to perceived value of writing, many students do not have a positive perception of the work they are asked to engage in and struggle to see its value in their writing development. Mainly, students indicated their instructors rarely explain the importance and uses of their writing activities, which causes a disconnect between the task and learning objectives. Consequently, some students develop an aversion toward writing, especially when the task at hand is difficult to understand, or they fail to grasp the purpose of the writing activity. For example, Lilly described how she struggled with a creative writing assignment that required her to evaluate the design elements and art principles of a movie poster. “The assignment was a learning curve for me because I had never done anything like it before… I didn’t understand how it was applicable to developing my writing skills.” Other examples of writing assignments that lowered students’ self-efficacy and their perceived value of writing were noted. As a result, some students become disengaged from their writing and put forth minimal effort. Kim said:

For a leadership class, it was basically self-assessing myself and my leadership strength.
And I was really annoyed with the class because the assignments didn’t seem conducive to actual learning. I was just frustrated and I whipped the work out as quick as I could.

**Theme Four: Physiological and Emotional States**

Feelings and emotional responses to writing experiences was a fourth way students recounted their writing self-efficacy. These responses were predominantly characterized within two categories: stress or anxiety, and passion or pride.

**Stress or anxiety**

Within the category of stress or anxiety, students shared how their feelings of fear and hesitation can be damaging to their writing self-efficacy. Callie described the anxiety she experienced when preparing for a written final exam.

It was a 7:30 a.m. final. I pulled an all-nighter in pure terror worrying about this final. They handed me a blank piece of paper and wanted me to fill it in with everything I knew off the top of my head…it made me doubt my skills.

Several other students also admitted they experience intense feelings of apprehension and dread when it comes to writing. While some students stated they often feel self-conscious about their writing, such as when their work is being reviewed by instructors and peers, other students noted their deep-seated aversion to writing exercises that make them step outside of their comfort zone. In many cases, these feelings of doubt or concern overshadow the positive sentiments students hold about their writing. Emery said: “I am definitely self-conscious of my writing. I’ve never loved writing…it makes me nervous.”

**Passion or pride**

However, not all experiences with physiological and emotional states were harmful to students’ writing self-efficacy. In contrast, a small group of students described instances where they experienced feelings of passion or pride toward their writing. For example, Harley shared
how passion helps increase her writing self-efficacy by allowing her to feel connected to her work. “Usually my writing assignments are most successful when I get to explore topics that I care about. If it's not something I'm interested in, then I still put in the same effort, but my overall enjoyment isn't there.” Similarly, students noted they feel a greater sense of accomplishment in their writing when they have the freedom to use their creativity or add their own personal touches to a story. Jill explained: “Anytime I feel great about an assignment is when it's free rein or there's not a super strict rubric for it.” Moreover, because writing is a deeply personal act, a personalized approach to writing was found to leave a more positive impression on students’ writing self-efficacy compared to objective writing assignments. Students also highlighted the feelings of passion and pride they experienced when completing work that could be included in their writing portfolios or referenced during job interviews. Abby recalled writing her first feature story: “The piece made me really proud of myself...it was one of the first pieces that I put in my portfolio.” It was evident that when students have more interest and are more active in their writing endeavors, they are more optimistic and exude more confidence in their abilities.

**Theme Five: Self-Regulated Writing Strategies**

Deviating from Bandura’s model, another area that served as a source of student’s writing self-efficacy included the self-regulated writing strategies students employ when approaching writing tasks. Responses varied when students were asked about what types of writing habits they practice including methods of outlining, different types of professional or peer editing, and creating a conducive writing environment.

**Outlining**

For example, while some students prefer outlining, others choose to skip this step. Faith said: “My process takes a few days. I think about what I’m writing before I start with bullets and
creating an outline. My outlines are usually very detailed. I would say I'm organized in that way for writing.” Other students use a less formal approach and write all their thoughts down before going through several rounds of revisions. However, students indicated that such outlining and revision strategies do not always translate to higher levels of writing self-efficacy. Georgia remarked she uses outlines, but acknowledged the drafting process can sometimes hinder her writing ability.

Normally I try to create an outline and then figure out everything that I need in that, but I've discovered my drafting process really needs help. I really don't like reviewing my work and so as I write my first couple of paragraphs, I go over that so many times before I let myself carry on. So I don't know how useful that is to my writing.

Professional or peer editing

In instances where students struggle with writing, some say they are not afraid of asking for editing assistance. Several students touched on the benefits of using the university writing center and highlighted how strategies like reading their writing out loud with a professional is a helpful tool for building confidence in their writing. Emery shared:

[My instructor] highly recommended we go to the writing center…that helped my writing quite a bit. It takes a lot of time, but I think it helps having someone else read it who is not your professor because they're looking at it from a different point of view.

In other cases, strategies for editing and maintaining writing self-efficacy are as simple as initiating a peer review with a friend or colleague. According to students, this step helps them catch simple grammar, spelling, and punctuation mistakes they may have overlooked. Jill stated: “I check punctuation and spelling because I know when I'm on a roll I'm not always paying attention to the details…so I'll typically ask my roommates to check my work.” Additionally,
because students are voluntarily asking their peers to correct their writing errors in these situations, they feel less anxiety or discomfort about sharing their writing with others.

**Conducive writing environment**

Furthermore, students emphasized the importance of situating themselves within an environment conducive to writing. For a majority of students this strategy influences their writing ability from two perspectives: disruptions in their physical surroundings, like cell phone use or loud noises, as well as indirect obstacles, such as deadlines. Lilly highlighted the steps she must take to be proactive in eliminating these distractions and taking accountability for her writing performance. “For one assignment I had to lock myself in my room, put my phone away and write like a mad man…that was the solution.” Deadlines can also be detrimental to students’ writing self-efficacy because it increases the stakes to perform well under pressure and can cause some students to “choke up” or experience mental road blocks. According to Molly, sometimes creating a conducive writing environment requires students to manage both types of interference simultaneously.

I really hate being forced to write in class. I very much want to do that on my own. I just feel like it's not a conducive environment, ever. And having the time limit of having to write something by the end of the class period and turn it in doesn’t help my writing.

**Theme Six: Types of Writing**

As students described their writing self-efficacy beliefs they often compared academic writing versus industry-oriented writing. That is, they attributed their self-efficacy to the types of writing they have engaged in and whether or not it is relevant and applicable to future careers in agricultural communications.
**Academic writing**

For example, several students were critical of academic writing assignments such as reflection papers, self-assessments, and writing academic journal articles. These were among the most prevalent types of writing students indicated they had experience with, and students did not feel they had adequate support in learning how to be successful at these assignments, nor did they find them valuable to their writing development. Molly expressed her negative perceptions of reflections.

One reason I don't like reflections is because the audience that I'm writing to is myself. And that's just really annoying to me because I don't really need to formalize it in writing. It’s not really helping anyone else, and it's only to prove to the professor that I know something.

Moreover, some students noted an overall lack of writing projects being assigned in their courses. They also noted that the type of writing they engage in does not meet their expectations as future agricultural communicators. As juniors and seniors, these students expressed their dissatisfaction in having few opportunities to practice and improve their writing skills in a way that prepares them for their careers.

**Industry writing**

Conversely, students distinguished the difference between writing for industry versus academia and communicated their desire for more writing assignments that mirror industry practices. News stories, science communication, and interview style stories were among the types of writing students desired gaining more experience in compared to scholarly styles. A couple of students also noted a need for learning how to follow style guidelines expected of agricultural communicators, namely AP style. One student, Emery, proposed incorporating social media into the classroom to help enhance students’ writing skills and prepare them for the real-
world. “Social media is widely popular today in educating about agriculture. There are job positions out there for social media, so it’s important we learn how to maneuver that.”

Another compelling argument demonstrated how failing to prepare students for industry writing can take a toll on their writing self-efficacy. Abby described how a recent internship experience made her feel underprepared for her future career:

All of my teachers have had great comments about my writing ability...and then I go out to the workforce and I feel overwhelmed because when I write something it comes back mostly in red. Obviously writing for industry and writing English papers is very different, and it was hard to adjust.”

**Theme Seven: Types of Courses**

Just as students described how different types of writing influences their writing self-efficacy, they drew similar parallels to the types of courses they enroll in, specifically with regard to whether their courses are agricultural science or communications courses.

**Agricultural science courses**

The primary criticism shared by students was that although their agriculture classes account for a majority of their coursework, these classes typically don’t focus heavily on writing. In many cases, students noted writing is often secondary to the subject matter. Therefore, while students may feel more comfortable writing about agricultural topics, they do not always get feedback that helps them improve their writing development. Rather, evaluations are based on content rather than writing quality. Emery said: “A lot of agriculture classes that I’ve written papers in, writing is not the main focus, so professors just assume your writing is good…they don’t help you with your writing skills.” Similarly, Abby voiced her concern over the nature of the feedback being given to her by instructors teaching courses in agricultural science. “Agriculture courses make me feel really good about my writing, but I’m concerned about that
because I’ve only had writing classes with ag instructors, I think journalism instructors might be stricter.” Thus, students are uncertain of whether their writing skills are being pushed to the level they should be or held at a high enough standard in their agricultural science courses.

**Communications courses**

In opposition, students value communications courses more highly when it comes to improving their writing skills. Several students commented that instructors in the communications courses are often less lenient with writing errors and expect their writing to be more clear, concise, and presented in a thoughtful manner. Additionally, students highlighted being pushed to try more technical types of writing in their communications courses compared to their agricultural science courses. Although students are likely to feel more confident when writing about agricultural topics, this does not necessarily equate to better opportunities for writing development. On the contrary, students pointed to instances where they actually felt more pride and experienced greater growth when finishing a writing project that focused on unfamiliar subject matter. Molly explained: “I wrote an article on cystic ovarian syndrome…it was fun and challenging to learn about it and distill the information down. I’m proud of it because it’s something I knew nothing about.” Furthermore, when asked how different types of courses influence writing development, Kim said:

I think I definitely put more effort into classes that focus on communication or composition. When it comes to writing for agriculture courses, the professors just care about content. As long as you answer their questions, you’re going to get a good grade. Whereas with writing classes, they pay more attention to your writing style and writing skills.
Research Question Two: Factors that Influence Feedback Preferences

What factors impact agricultural communications student’s attitudes toward different types of feedback practices? Five themes emerged from the thematic data analysis identifying student preferences and attitudes toward different types of feedback practices. These themes were consistent with the feedback orientations of source delivery, mode, types of writing concerns, and timing. A new theme, related to timing, also considered the increments in which feedback is given (represented in green). The themes were named to be congruent with students’ responses and the existing literature and are summarized in Figure 4.2. Overall, students shared their positive and negative experiences with different forms of feedback which helped to reveal their feedback preferences, the extent to which current practices address students’ feedback preferences, as well as the areas where alignment is needed.

Figure 4.2. Factors Influencing Agricultural Communications' Students' Feedback Preferences

Theme One: Source of Delivery

Concerning the source of delivery, participants expressed mixed reactions to feedback that is provided to them by their peers versus their instructors.

Peer feedback

While they acknowledged the benefits of having more than one person review their work, some students felt uneasy about having other students read their writing. Emery said: “You’re
almost apprehensive about it, but at the same time you’re more comfortable with it because they know you, and you know they’re going to give you honest feedback.” Additionally, students said they value peer review when it is not a graded activity, suggesting that the feedback source is more trustworthy when their classmates are not obligated to point out errors in their writing.

In contrast, participants made several arguments against peer reviews and stated their fellow classmates are not always a reliable source of feedback. Reasons for these criticisms included a lack of scholarly expertise and the fear that personal judgements or biases might cause their writing to be evaluated more harshly. As a result, some students place little value on peer feedback and disregard their peers’ comments altogether. Harley shared her hot and cold reactions to peer feedback, noting how the amount of time and effort invested may differ student to student. “I put a lot of effort into peer reviewing, but depending on the person on the other side of the table, they might not put in the same effort. That frustrates me.” Other concerns included the difference in peer reviewers’ writing styles and abilities as well as the nature of their comments. Harley continued: “Depending on the person, they will either sugarcoat it or be super blunt.” Subsequently, one strategy students use to improve their experiences with peer reviews includes seeking out a classmate they consider to be an equally skilled or superior writer.

**Instructor feedback**

Compared to peer feedback, participants demonstrated a strong preference towards feedback that is provided to them by their instructors. Several explanations were given in support of this alternative source of delivery. Georgia said: “Sometimes I feel like peer feedback is not beneficial because it’s just an activity you have to do in class, whereas instructors are seasoned, give it the time of day and know what they’re talking about.” Other students agreed, noting they are more prone to accept instructor feedback because of the experience and expertise their instructors have in their respective fields. Furthermore, students stated they tend to value
instructor feedback more highly because it usually reflects the sum of their efforts rather than the early stages of their writing. However, many participants acknowledged instructors rarely have sufficient time to provide them with detailed comments.

Between peer and instructor feedback, participants indicated peer reviews are the main source of feedback used to inform their writing. According to the respondents, peer feedback is used extensively in their courses and often involves multiple reviewers. Additionally, the focus of the feedback given generally concerns grammatical errors. Consequently, students accept the lack of instructor feedback at the expense of more peer interaction, even though they desire and maintain a stronger preference toward instructor feedback. Faith said: “Peer reviews is the biggest kind of review we do. That’s probably why some of the teachers don’t give as much feedback.”

**Theme Two: Feedback Mode**

Written remarks, verbal responses, and digital comments were among the modes of feedback described by participants.

**Written and digital feedback**

While several students confirmed written feedback is no longer a widely used practice, parallels were made between written and digital modes. According to participants, written feedback typically consists of hand-written notes that are “very general”. Meanwhile, digital comments were described as the most common form of feedback provided. In today’s classroom environment, digital feedback is stewarded through course management systems like Canvas or Blackboard, but students shared electronic messages seldom consist of more than one to four sentences. Additionally, students pointed out that digital feedback is generally published within the comments section of their course management tool, rather than presented as mark-ups within their submitted work. Based on these observations, it was evident students were frustrated by the
overall lack of written and digital feedback generated, yet one positive remark was made about these modes. Jill said: “I like those forms because then I can go back and read them and reassess from there, rather than just listening and trying to remember everything or taking notes.”

**Verbal feedback**

Verbal responses were considered the most valued and highly sought-after form of feedback, despite the fact it was the mode participants had the least amount of experience with. One student, Dani, described it as the best method for “gauging where your professor is at and how you can be more successful.” Another student, Georgia, recalled how an experience with verbal feedback through one-to-one meetings encouraged her writing. “It was really helpful because I realized the power of reading my writing out loud. [My instructor] gave me critiques, but also pointed out good things. That made me feel empowered.” Though it was evident students enjoy the added clarity and opportunities for revision that result from verbal feedback encounters, participants admitted they don’t expect their instructors to make time for face-to-face communication unless they initiate a dialogue. In such instances, students are able to interpret feedback messages more clearly. Lilly explained: “With written feedback, I automatically assume the worst when I see big bold letters and exclamation points, but with verbal I can read the emotions coming off and they don’t seem as harsh.”

Digital feedback was undeniably the most common mode of feedback participants have experienced. However, several observations were made comparing the shortcomings of hand-written and digital feedback. Most notably, participants indicated these forms of feedback typically lack substance and provide few details about their writing performance. Furthermore, hand-written responses and digital comments are not as extensive as students would like them to be, but for some students this becomes a moot point after receiving their grade. Emery said: “They give you feedback online, but once you have your grade you don’t talk about it anymore
unless you want to fight for your grade and rewrite the paper.” Although participants acknowledged written and digital modes are easier and less time-consuming for instructors, it was evident they desire more opportunities with verbal feedback. Faith said: “It would be really nice if there was more verbal feedback, but I know in a lot of classes that’s hard because there are so many students.”

**Theme Three: Types of Writing Concerns**

In the global versus local feedback debate, participants discussed the evolution of their writing development and how different types of errors have been addressed in their writing as they’ve progressed into advanced level courses.

**Global writing concerns**

Dani said: “In my fourth year at ISU, my feedback is now geared more towards global feedback. I feel like I don’t trip up on my grammar or spelling as much.” Georgia, too, recognized a gradual shift from local to global writing concerns and noted that point deductions can occur if grammatical mistakes are made. “As you move into upper level classes, they just dock off points for grammar and that kind of thing because that’s just something that’s expected, especially with AP style for journalism.” Several other students concurred, contending that while there is always room to improve their mechanical errors, local writing concerns should be mastered before entering college. They argued global issues such as content, organization and clarity of purpose should be emphasized instead. Faith said: “You can always fix your grammar and punctuation…that’s something you should be able to do at the college level. But global feedback, I think that is something teachers could emphasize more.”

**Local writing concerns**

While some students affirmed their local writing concerns were addressed at the onset of their writing education, others admitted they still struggle with grammar, punctuation, and word
choice. Emery said: “I get feedback on grammar and it’s so frustrating because you feel like you should have caught that.” Other students, like Becca, highlighted how local feedback has helped them improve their writing at the collegiate level. “I struggled a lot with word choice and grammar, but through feedback and practice I’ve made a lot of progress.” Although students pointed to a shift towards global feedback, it was evident local feedback has been an equally useful tool for helping students overcome issues with mechanical errors and improve their writing. Thus, while a majority of students supported shifting from a local to global feedback as they advance through their courses, they acknowledged a continued need for local feedback when struggling with grammar, spelling, and punctuation errors. Harley said: “Within my first years of college feedback was more local because I needed to fine tune my writing, but as you get older it becomes more global.” As a result, a combination of local and global feedback is necessary to meet student needs. Participants indicated these expectations are being met, but they agreed global feedback should be emphasized over local feedback to advance students’ writing skills.

**Theme Four: Feedback Timing**

In terms of feedback timing, participants favored immediate feedback over delayed feedback; however, no specific examples of delayed feedback were noted.

**Immediate feedback**

Kim explained how immediate feedback encourages her to have open communication with her instructors between editing phases.

I feel like that’s the best way to have feedback because it’s not like you just receive it and get upset when you read it. I can have two-way communication with my instructor and that makes feedback a lot easier to digest.

According to participants, immediate feedback also draws their attention to patterns of errors and areas they need to focus on in the drafting and revision processes. By catching these
mistakes early on, students pay more attention to their mistakes and continue looking for ways to improve their writing. Isabelle said: “When my instructor told me to look at my sentence structure and word choice I realized my writing was super lengthy and I repeated myself within the same paragraph, so I started going over my work more closely.”

**Delayed or no feedback**

With regard to feedback timing, participants revealed little middle ground exists between immediate and delayed feedback. Rather, in practice, students either expect immediate feedback or no feedback at all after submitting written work. Students noted this is especially problematic when receiving feedback about their writing after exams. Harley shared: “The exam was in a paper-like format…I would have liked feedback even though I didn't expect it… but even in my prior work that I did in that class, I never received feedback either.” In the absence of feedback, students have limited ability to pinpoint areas in their writing that need improvement. For some students, this can lead to feelings of resentment. Abby said: “The lack of feedback didn’t help my writing at all. I’m not entirely sure my instructor even read my paper before giving me a grade.”

**Theme Five: Feedback Intervals**

Correspondingly, in cases where immediate feedback has occurred, participants were satisfied with their instructors’ feedback practices; however, a few students indicated that in addition to timing, the amount of feedback received also matters.

**Incremental and aggregated feedback**

Callie and Abby emphasized their preference for receiving feedback in increments instead of as an aggregate. The two students shared that while they prefer immediate feedback, it can sometimes feel overwhelming. Callie said: “By receiving increments of feedback, you are constantly picking up on something rather than trying to fix everything all at once. It’s easier to
take in smaller portions.” Abby agreed: “Moving through the criticism I have received all in one moment is daunting. There’s definitely steps to improving your skills just a little bit at a time.”

Other students confirmed their preference for incremental feedback and explained how a phased feedback approach gives them more time to fully absorb the comments or mark-ups they have received. Additionally, they shared incremental feedback affords them the opportunity to process and comprehend how to correct their mistakes, especially if it is the first time encountering a specific type of writing error. For example, Emery shared how incremental feedback helped her focus on avoiding the overuse of first-person references in a paper she submitted early in the semester. Rather than pointing out every local or global writing concern, Emery’s instructor helped her concentrate on developing stronger sentence structure.

In one of the first papers I wrote for a communications class, my instructor pointed out all the times I used the word ‘I’ in my reflection assignment. It was embarrassing…but I watched out for that the rest of the semester and in my other courses, too.

Another instance where students highlighted the benefits of incremental feedback included completing writing assignments where multiple rounds of revision are expected. When Kim was asked about her satisfaction regarding the amount of feedback she received on one of her English assignments, she described the feedback as “overly-adequate”. Kim said: “When you’re re-editing the same document over and over the practice can make you a better reader and writer, but it can be frustrating to know where to focus your attention.” Therefore, when it comes to timing, students prefer their feedback to be prompt and gradual rather than delayed and all-encompassing.

**Research Question Three: Factors that Diminish or Drive Writing Motivation**

How does feedback influence agricultural communications students’ motivation to write?

Four themes emerged as a result of the study identifying how feedback influences agricultural
communications students’ self-determined motivation to write. Collectively, these themes involved the level of depth and explanation provided, factors influencing students’ receptivity toward feedback, and the level of analysis instructors use when sharing feedback. As students described their interactions with feedback, a dichotomy between the factors that diminish or drive their writing motivation also emerged. While three of the themes were consistent with Townsend’s approach for exploring the impact of feedback on autonomy, competence, and relatedness, a fourth theme closely related to students’ receptivity toward feedback expanded upon this model and considered the dynamics of student-instructor relationships. Subsequently, the themes were named to be congruent with students’ responses and the existing literature. Table 4.1 provides a summary of the major themes and subthemes of the study identifying the factors that diminish or drive students’ writing motivation and inform the perceptions students hold about the quality of the feedback they receive.

### Table 4.1. Research Question Three Major Themes and Subthemes

<table>
<thead>
<tr>
<th>Level of Depth and Explanation</th>
<th>Factors that Drive Motivation</th>
<th>Factors that Drive &amp; Diminish Motivation</th>
<th>Factors that Diminish Motivation</th>
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<tr>
<td>Feedback Tone</td>
<td>Direct feedback</td>
<td>Praise, criticism</td>
<td>Indirect feedback</td>
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<td>Student-Instructor Relationships</td>
<td>Positive relationships</td>
<td>Negative relationships</td>
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<tr>
<td>Level of Feedback Analysis</td>
<td>Individual intelligence, social comparison, process or progress feedback</td>
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Theme One: Level of Depth and Explanation

Level of depth and explanation was one of the key qualifiers students used to describe the quality of the feedback they have received about their writing. Students asserted that when they receive feedback, it makes them feel supported in their writing, whereas in the absence of feedback they feel discouraged and confused as to what corrections can be made to improve their writing. Consequently, their writing motivation diminishes. According to students, feedback is especially crucial when it is taken into consideration with their grades because it helps them to simultaneously identify errors and justify their scores. Isabelle said: “When I get feedback…it makes me feel like I'm being supported in my writing…when I don't receive feedback and I get a score I'm not expecting, then I'm confused.” However, the quality of feedback largely depends on whether the statements or comments are made directly or indirectly.

Direct feedback

Students described direct feedback as a type of response that provides them with clarity as to what corrections are needed relating to structure, flow, and organization among other areas of their writing. For example, several students shared they benefit from feedback when it is broken down and clearly identifies errors within specific sections of their writing. Georgia explained: “I've had some instructors break it down into intro, body, and conclusion or by paragraphs. Other times, they will highlight main concepts in the rubric. It helps me know where I can improve.” Additionally, students said direct feedback allows them to quickly point out mistakes and recognize inconsistencies in their writing. When asked how instructors can help enhance motivation to write, Dani explained she is more likely to make corrections when instructors provide examples alongside their revisions. “One of my instructors would go through each paragraph, explain where I needed to add more content and give an example of what [the instructor] wanted to see…that added detail really helps me as a student.” Another perspective
revealed that even though students are often uncomfortable with the critiquing process, they value feedback that is thorough and straightforward because it gives them an opportunity to grow. Callie said:

For one class we wrote six papers and we received detailed comments throughout almost every sentence about what the instructor liked, disliked, or where you could improve. The instructor tore the papers apart to give you a new foundation to build off of for the next one…as much as I hate those processes, I feel they’re always beneficial to my writing.

**Indirect feedback**

In contrast, students described how indirect feedback, or a lack of depth and clarity, can diminish their writing motivation. Examples of indirect feedback included revision statements that are vague, insubstantial or fail to offer suggestions for improvement. Students agreed concrete feedback statements are important to their writing development. In the revision process, students improve their writing skills by learning to challenge their own ideas, identifying weaknesses in their writing, and finding new ways to strengthen the arguments they are trying to convey. According to participants, indirect feedback limits these opportunities for learning and discovery because it does not provide them with clear direction for guided practice. Georgia recalled a time she received limited feedback on an assignment: “The feedback didn't tell me if I had all the components I needed, it didn't even give me suggestions. I think that’s really important when writing…to have someone help you explore the bigger picture of what you’re trying to capture.” Subsequently, students become uncertain about what areas of their writing they need to focus on. Abby shared the disappointment she felt after receiving insufficient feedback on a feature story assignment. “The instructor left comments like ‘this isn’t right’, ‘this paragraph doesn’t make sense’, but didn’t say why or offer suggestions on how to make it better. I was never sure what an A paper looked like…it was left to my imagination.” In other instances,
students became defensive and discouraged when they were not provided with an adequate explanation of how to improve their work. Jasmine shared:

   When I asked for clarification, I wasn’t given an explanation and it felt like an ‘I’m right, you’re wrong’ situation…it left me frustrated not only with myself but with the class in general. I appreciate direct feedback because I want to see where I can grow and where I can improve rather than just receiving a grade.

**Theme Two: Tone of the Feedback Statement**

A second qualifier students used to rate the quality of the feedback they have received included the tone of the feedback statement. Students indicated their acceptance or receptivity toward feedback is due largely to whether the statement comes across as praise or criticism.

**Praise**

For example, many students shared that praise “empowers” and “encourages” them as they move along the revision process. Praise was also found to provide students with a sense of reassurance, which further motivates them to continue developing their writing skills. However, some students, like Dani, recognized how too much praise can also be limiting. “Seeing positive comments is so reassuring to me... but sometimes when you get all positive feedback you start to believe you’re perfect…you don’t need to listen to other feedback.”

Correspondingly, several students suggested feedback can be more beneficial to their writing development when it is provided to them as criticism with a positive spin. According to participants, these kinds of critiques are helpful rather than harmful to their writing motivation because they provide practical recommendations that are not harsh in nature. Two students, Lilly and Jasmine, gave specific examples of how this process can be achieved. They described it as an “oreo” or “peanut butter and jelly sandwich” approach that starts with a positive comment, followed by a layer of suggestions on what areas need improvement, and ends with another
positive comment. Jasmine explained why this approach is effective. “I always feel like it’s very
helpful because you do get that positive feedback…and areas where you could improve.
Feedback that does not follow this approach is disheartening.”

Criticism

While a number of students indicated a balance of praise and criticism can be helpful for
recognizing their writing errors, a majority of students described criticism as a form of feedback
that is demotivating. Callie explained how criticism can ultimately hinder the revision process.

There’s a stigma that feedback is always negative. When I see a lot of feedback, most of
the time I perceive it as a negative rather than a positive. You feel like it’s just slamming
or tearing apart whatever you wrote. It’s hard to want to piece your writing back together
after you’ve been knocked down.

Other students acknowledged the internal struggle they face when responding to
criticism. Many shared how processing and acting on negative feedback is not always easy. As a
result, it can make students feel defensive, self-conscious, or angry, which impairs their
motivation to learn from their mistakes. Kim shared how feedback can be deeply personal and
cause her to disengage. “Whenever I get negative feedback it’s like my pride gets in the way. I
know what I’m trying to say and what I’m trying to communicate…if the response is negative it
makes me not want to listen.”

Theme Three: Student-Instructor Relationships

Another dimension related to students’ receptivity toward feedback includes the
relationships fostered between students and instructors. Just as students hold perceptions about
the quality of feedback based on whether the tone is positive or negative, students also make
judgements based on the nature of their relationships with instructors.
Positive relationships

Students who developed a strong rapport with their instructors were more accepting of feedback because they could engage in deeper and more meaningful conversations about their writing. Additionally, students were more comfortable meeting with their instructors outside of class, felt supported in their writing, and were more motivated to continue writing. Harley shared: “I had a really good relationship with a professor who encouraged deeper thought and reflection….it made me feel a lot better about my writing and gave me solid critiques and criticism, too.”

While not all students reported developing this same sense of connectedness with their instructors, several acknowledged that the longer they worked with an instructor throughout the semester, the better they were able to gauge their expectations. Subsequently, students had a more positive outlook on how their relationship with their instructor affected their learning outcomes, even if they initially had reservations about the class or were hesitant about the feedback they would receive. Isabelle described the increased motivation she experienced as she eased into one of her courses and became more familiar with her instructor’s teaching methods. “Towards the middle to later part of the semester you feel more comfortable with your professor and their teaching style. Going into later assignments you become more confident in your abilities because you have a grasp on what they want.”

Negative relationships

Meanwhile, other students reported developing negative attitudes towards their instructors. Such instances were most prevalent when students felt their sense of agency was being challenged. Students described how negative student-instructor relationships impact behavior, adjustment and achievement by limiting their ability to cope with feedback. As a result, feelings of resentment and alienation may arise, causing some students to shut down from
their writing altogether. Kim described how these feelings developed with one of her instructors and deteriorated her writing motivation over time.

One of my professors was tough…the approach she took was intimidating. It was not fun to have conversations with her because she was very much like ‘cross out this’, ‘I don’t like this’…and we’d do seven to eight rounds of revisions. So it became this big process and I got angry because it felt like she wasn’t helping me write…she could have approached it more lightly.

**Theme Four: Level of Analysis**

A final area students used to describe the quality of their feedback is the level of analysis used to review their work such as individual intelligence, social comparison, and process or progress feedback.

**Individual intelligence**

Individual intelligence reflected each students’ personal performance or writing tendencies. For example, while some students routinely struggled with transition sentences and using professional language, others stated they receive feedback regarding basic grammar, spelling, and punctuation errors. Because no two students have the same writing style or skill level, the patterns of their writing errors also differ. In this way, students felt feedback based on their individual intelligence was beneficial because it met their specific writing needs. Dani addressed how individual intelligence feedback helps her learn from her mistakes. “It’s definitely humbling, but I think it’s good for students to get that type of feedback…having that sense of learning from your mistakes and getting better.” Additionally, students noted how individual intelligence feedback helps them stay motivated by focusing on the positive aspects of their writing, which in turn, helps them feel more capable of tackling the areas that need improvement.
Social comparison

In contrast, social comparison provides students with feedback from the perspective of how they are performing compared to their peers. According to participants, this form of feedback is less frequent than individual intelligence feedback, but still applies in some situations. For instance, when students work in teams or pair up to complete group projects, they recognize that their peers may have different writing strengths and acknowledge ways in which they can improve their own writing to match that of their peer audience. Some students noted how recognizing and acting on these subtle changes in their writing can really drive their motivation. Students also indicated instructors will also use this approach to provide feedback about their writing. Molly said:

They are somewhat comparing you to a standard or to your classmates, but it’s also how you’ve progressed during the semester and what you’re working on to improve in certain areas….I think it’s encouraged my writing, and challenged it too.

Process or progress feedback

The process or progress approach Molly alluded to also elicited a response from several other students who indicated this form of feedback serves as a stepping stone in their writing by allowing them to reflect on and be credited for the different phases of the drafting, writing and revision process. A majority of students explained that this approach is most common when instructors assign writing exercises that involve multiple drafts. Belle described the benefits of receiving this type of feedback.

Starting with a rough draft helped a lot…I felt my instructor was giving me good feedback along with some things that I could change to make it better. That made me feel more motivated as a writer because I knew I could go back and fix my mistakes. Other students commented on how the process or progress approach allows them to
notice areas where they have improved in later versions of their writing while gaining suggestions and approval from their instructors before moving forward with their final draft. Subsequently, students are able to make changes, expand their arguments and add final touches to their work before submitting the assignment. Several students also noted process and progress feedback reflects how their papers have changed in quality over time. As a result, students often feel more deserving of the grade they receive because of the dialogue that is kept open between drafts and revisions. Furthermore, students felt process or progress feedback provided them with a more positive, more meaningful experience as they prepared drafts and made revisions.

Isabelle concluded:

Even though it puts more pressure on you to get the rough draft done…you know your rough draft doesn’t have to be perfect and it’s open for revisions. Having that whole process is beneficial to improving your knowledge as a writer.
CHAPTER 5. CONCLUSION

Researchers in the field of agricultural communications have consistently identified written communication skills as a deficiency among agricultural communications graduates; however, few studies have addressed considerations for resolving this issue. The premise of the present study was to move beyond the evaluation of industry needs and skill requirements to providing next steps and practical recommendations on how to help agricultural communications students enhance their writing. Thus, a central function of the study was to capture how this student population responds to feedback and experiences writing in academic settings. In doing so, the study supported the broader impacts of informing writing instruction and enhancing agricultural communications students’ writing skills so that they can better serve the agriculture industry in presenting scientific information, conveying complex agricultural issues, and building a relationship of trust with consumers (Kurtzo, Hansen, Rucker & Edgar, 2016; Watson & Robertson, 2011).

A comprehensive analysis of the literature revealed the various contexts in which writing and feedback have been investigated and informed a discussion of relevant theories focusing on social cognitive theory and students’ writing self-efficacy, theories of implicit intelligence and the nature of feedback, and self-determination theory as a theoretical intersection between feedback, revision, and students’ self-motivation to write. These theories provided the foundation of knowledge that shaped the conceptual framework used in the study. As a result, a link between feedback and students’ writing self-efficacy and motivation emerged. This chapter presents a discussion of the research findings, provides recommendations for practice, proposes implications for future research, illustrates the revised conceptual framework, and summarizes the major theoretical, methodological, and contextual contributions and limitations of the study.
Discussion on Sources of Self-Efficacy

Overall, few students confidently stated they perceive themselves as strong writers, whereas a majority of participants questioned their writing abilities and admitted their written communication skills need improvement. Participants wrestled with their writing self-efficacy as they described their writing style, work habits, and past writing performance. These accounts helped to identify the underlying factors that inform agricultural communications students’ self-efficacy beliefs. Agricultural communications students use a variety of sources to inform their self-efficacy beliefs, though the level, strength, and generality of these beliefs vary student-to-student and across different domains of writing (Pajares, 2003). In this study, students demonstrated moving between the highs and lows of their writing self-efficacy as they described interpretations of their writing performance and background, interactions with modeling and assignment expectations, feedback messages and their perceived value of writing, feelings of anxiety and optimism, self-regulated writing strategies, such as prewriting and drafting processes, different types of writing, such as academic writing versus industry writing, and different types of courses, including agricultural science and communications courses.

Compared to previous studies that have described mastery experiences within the context of task complexity, timing, and repetition that leads to continued success (Walker, 2003), this study resulted in a much broader interpretation of students’ successes and failures that encompasses their past writing performance as well as their grades and the quality of their early writing education. This broader interpretation can perhaps be explained by the education level of students who participated in the study. A number of earlier self-efficacy studies have focused on adolescent students in the development stages of learning (Holmes, 2016, Usher, 2009), whereas the present study targeted students at the post-secondary education level. While grades may also be considered an important source of self-efficacy for other learners, college students are
arguably more likely to notice their grades because of the increased task complexity that occurs during the transition from high school to college, or due to the ramifications that may result from failing, such as academic probation or dismissal. Additionally, college students are more likely to reflect on how well their early writing education prepared them for higher levels of learning. As revealed in the study, if a student’s past educational experience was inadequate, they were quick to acknowledge their lack of writing instruction as a source of their self-efficacy, or their inability to perform certain writing tasks. Although students’ interpretations of successes and failures differed in the present study, it was evident that like Bandura’s definition of mastery experience, students’ broader writing performance and background served as one of the most direct forms of authentic evidence students use to gauge their potential to succeed (Artino, 2012).

Similar to students’ interpretations of mastery experience, their interpretations of vicarious experience were broadened beyond the traditional forms of modeling described in the literature which include instructor or peer modeling, and referencing examples of other student work (Pajares, 2003; Ray 2002). Primarily, students frequently noted the use of rubrics as an extension of the modeling component commonly associated with self-efficacy. According to students, instructors regularly provide rubrics as a set of guidelines or expectations for their writing assignments. Subsequently, students rely on these rubrics to distinguish examples of failure from examples of success. However, they become easily frustrated when the rubric guidelines are unclear or provide few details about what a quality submission should look like. One possible reason for this reliance on rubric guidelines as an alternative source of self-efficacy may result from a lack of traditional forms of modeling being used in the classroom. Students indicated that while instructor modeling and student work samples have the potential to aid their writing, these tactics have been largely unsuccessful due to their limited use or directions and
expectations they say are too discrepant. Therefore, without instructor modeling or examples of other student work, agricultural communication students use rubric guidelines as an alternative form of self-efficacy compared to more commonly known vicarious experiences. Furthermore, in the absence of modeling, rubric guidelines may also be useful if students have low self-efficacy or have limited experience with the task at hand (Pajares, et al., 2007).

With regard to social persuasion, students highly value the feedback they receive about their writing. Johnson et al. (2007) demonstrated that negative appraisals are often more influential in shaping students’ self-efficacy beliefs than positive encouragement, however agricultural communications students were generally accepting of the role of feedback in their growth as writers. Overall, students recognized the positive outcomes of feedback and agreed that feedback helps them improve their writing skills and become more confident in their writing abilities. This was an important finding that can perhaps be attributed to the expectancy for this student population to become skilled writers as required by their profession. As a result, agricultural communications students internally acknowledge the need to hone their written communications skills and view feedback as a significant source of self-efficacy. In contrast, it was evident that students sometimes struggle with their perceived value of writing. Consequently, this can cause students to lose interest in their writing development and become passive learners. As described by Holmes (2016), perceived value of writing is a component of social persuasion that defines writing as a learning process rather than an inherent skill. Based on the findings, perceived value declines when students are struggling with their writing skills or fail to see the connection between the task at hand and their development as writers. Such observations reiterate the need for improving self-efficacy through statements that remind students of the importance and uses of writing (Holmes, 2016).
Emotional states such as stress, anxiety, passion, and pride also served as a strong representation of how students interpret their writing self-efficacy. It was evident these experiences stick with students long after a writing incident has occurred and impact their judgements about their writing performance. These findings mirrored those of previous self-efficacy studies that have indicated physiological and emotional states serve as important cues about a students’ future successes or failures (Artino, 2012; Johnsen et al., 2007; Walker, 2003). Furthermore, the study demonstrated students’ vulnerability to positive or negative feelings that influence their self-efficacy beliefs (Artino, 2012). Although students predominantly recalled incidents where they experienced feelings of stress or anxiety, students did describe some instances of physiological and emotional states that were helpful rather than harmful to their writing self-efficacy. For example, writing assignments that instilled a sense of passion or pride allowed students to experience an increase in self-efficacy and renewed confidence in their writing abilities. Each of the findings described above echoed the four sources of information Bandura (1977) used to describe self-efficacy beliefs; however, the underlying subthemes pointed to the specific ways agricultural communications students interpret their writing experiences.

Shifting to the sources of self-efficacy that expanded upon Bandura’s framework, many students were conscious of their self-regulated writing strategies including their use of outlines, utilizing professional or peer editing, and creating a conducive writing environment when approaching writing tasks. Many of these same approaches have been previously noted in the literature, particularly in studies completed by Holmes (2016) and Usher (2009) who focused on self-efficacy among middle school students. Agricultural communications students reported using several methods, practices, and pre-writing techniques such as outlining, peer editing, and
eliminating distractions in their writing environment to boost their confidence in their writing abilities. Students also articulated their desire for writing experiences that closely mirror industry practice rather than composition that is scholarly in nature. Holmes (2016) too acknowledged that different types of writing influence students’ writing self-efficacy, however these orientations were not exclusive to types of writing used in the workforce. Given the target population of this study, it is not surprising that agricultural communications students tend to focus on industry writing over other writing styles when compared with studies focused on middle school students who distinguish different types of writing by subject matter rather than their applicability in the real world. Nevertheless, this was a key finding that helped inform recommendations for practice.

Finally, students had strong opinions regarding their writing self-efficacy when enrolling in different types of courses. While agricultural science courses allow students to engross themselves in pertinent agricultural topics, the instructors of these courses often do not push students to higher levels of writing. As a result, students look to their communications courses to provide them with the writing rigor they need to improve their skills. This finding served as the most significant theoretical contribution of the study as the distinction between different types of courses has not been previously explored in writing self-efficacy studies. Agriculture courses account for a majority of agricultural communications students’ major specific requirements at ISU. Although students shared they feel comfortable with their writing performance in these classes, they explained this ease also gives them a false sense of success as agriculture courses typically do not focus on writing. Therefore, agriculture classes do not have a high impact on furthering agricultural communications students’ writing education. Consequently, students feel they are not receiving the rigor and writing practice they need to improve their writing skills and
increase their self-efficacy when comparing their agriculture courses to their communications courses. As a new underlying source of writing self-efficacy uncovered in the study, this key finding helps to provide a more comprehensive framework for identifying the cognitive, behavioral, and environmental factors influencing students’ writing self-efficacy and skill development.

**Recommendations for Practice**

While participants gave some examples of how their writing self-efficacy has been positively influenced through mastery experience, social persuasion, and self-regulated writing strategies, it is evident much more can be done to improve students’ confidence in their writing abilities. With regard to writing performance, instructors should consider how grades influence students’ interpretations of success and give scores that not only reflect evidence of learning but also the quality of the writing itself. Care must also be taken to accept that not all students have the same skill level when entering college (Leal, 2016), yet in many cases, students have a desire to learn and are eager to improve. There is also an opportunity to capitalize on student’s “aha” moments when they do achieve success in their writing. By acknowledging these moments, instructors can accentuate the positive in students’ writing development and encourage them to push further as they build up their confidence.

In relation to model and assignment expectations, it is important to recognize that students in agricultural communications often pursue a mixed curriculum that includes a combination of agricultural science and communications courses (Cartmell & Evans, 2013, Kearl, 1983). Therefore, establishing consistent methods for modeling and observation across the curriculum may be problematic. However, individual instructors can set aside at least one class period to discuss expectations for the semester, including preferred writing style choices, and prepare rubrics that provide clear direction as to how assignments should be conducted. A verbal
explanation of the rubric guidelines may be needed in addition to written directions. If appropriate, providing students with other examples of student work may serve as another useful tool for setting expectations and providing clear direction.

Based on student responses it is clear feedback plays a central role in building students writing self-efficacy (Bandura, 2008). While it is unlikely that the same forms of feedback will satisfy all students and their preferences for refining writing development, instructors should continue communicating a combination of positive and negative feedback messages to students to maintain and strengthen their writing self-efficacy. Steps must also be taken to improve agricultural communications students’ perceived value of writing. Before each assignment, instructors could spend more time linking writing to learning, build meaning, and helping students draw connections to real-world applications.

Physiological and emotional states such as intense feelings of fear or a strong sense of pride permeate agricultural communications students’ writing self-efficacy. Because these feelings are likely internalized by students and not shared with instructors it is imperative to regularly check in with students, either on an individual basis or by addressing the class, to mitigate fears or highlight student successes. These checkpoints may also be a good time to review course expectations, share deadline reminders or provide supplemental resources that help students gauge their progress. A little extra encouragement could go a long way in alleviating fears or reinforcing students’ self-assurance.

In terms of self-regulated writing strategies, agricultural communications students are already employing a variety of techniques to hedge their writing development, but there are additional steps instructors can take to promote good writing practices. For example, while many students choose to create outlines before beginning the writing process, instructors can
encourage the use of alternative prewriting activities such as listing, clustering, and freewriting for those who do not use traditional outlining methods. Additionally, students should be encouraged to seek outside assistance and engage in repetitive writing practice to expand their skill set as self-regulated learners (Pajares, 2003).

To satisfy students’ desire for practical writing exercises, instructors should incorporate more industry-related writing, like crafting social media posts, to enhance students’ self-efficacy beliefs. However, business writing should not become the sole focus of instruction at the expense of other writing styles. Rather, educators should strive for a balance of academic and industry-oriented writing within the agricultural communications curriculum. By achieving this balance, instructors can continue teaching students how to attain a scholarly level of writing and write to a variety of audiences while preparing them for professional careers in the agriculture industry (Irani & Doerfert, 2013; Tucker et al., 2003).

Finally, courses in agricultural communications should shift from a singular focus on content to an instructional synergy between content and skills that includes writing. To support this shift, academic departments can be more proactive in identifying existing courses within the major or across other disciplines that provide the rigor students need to develop their written communications skills. Designing specialized courses in agricultural communications that emphasize writing instruction may also help to fill this need.

**Implications**

For decades, researchers have investigated the various factors and complex sociocognitive processes involved in writing development. Subsequently, many theoretical and conceptual frameworks, such as social cognitive theory, have emerged as roadmaps for contributing knowledge, providing meaning, and guiding future research (Becker, 2006). More recently, researchers in the realm of social cognitive theory and self-efficacy “have pointed to the
need for greater attention to the sources underlying students’ self-efficacy” (Johnson et al., 2007, p. 106). As a result, studies concerning writing self-efficacy have received increasing attention in educational research and provided valuable contributions to the investigation of how students develop confidence in their academic performance across different subjects. In the present study, several underlying sources of self-efficacy were revealed. While some of the sources have been previously confirmed among other student populations, this study also explored broader interpretations of students’ past writing performance and their experiences with modeling, as well a new source of self-efficacy specific to the agricultural communications discipline. As Holmes (2016) and Usher (2009) demonstrated, it is likely that other salient forms of self-efficacy exists beyond Bandura’s hypothesized sources. Therefore, additional research is needed to identify how other student populations develop self-efficacy and interpret their abilities using different sources of information. This is an important consideration for future research, especially in other undergraduate programs like agricultural communications where writing is a critical component of the curriculum.

**Discussion on Feedback Preferences**

Another aim of this dissertation was to provide a practical investigation into agricultural communications students’ preferences and attitudes toward different types of feedback practices. Feedback orientations such as the source of delivery, mode, types of writing concerns, and timing were considered. As a result, several patterns in feedback preferences were revealed. A new finding uncovered in the study explored feedback intervals, or the amount of feedback given over the course of an instructional period. While previous studies have investigated this dimension in terms of how the amount of feedback is influenced by the length or complexity of the information, they did not consider how the aspects of timing and quantity work together to
impact feedback effectiveness. Thus, this was a key finding in the study providing a new direction for feedback research.

Using theories of implicit intelligence as a model for understanding how students perceive and respond to feedback, several points of divergence between current feedback practices and student preferences were also uncovered. These discrepancies helped to reveal implications for which practices align with a feedback seeking orientation versus a feedback avoidance orientations. As demonstrated by Waller and Papi (2017), incremental writing intelligence can serve as a positive predictor for a feedback seeking orientation, which is defined as a desire for learner-related feedback that can be used to address writing issues and improve writing skills. In contrast, they found students with an entity view, or theory of fixed intelligence, have a higher tendency to glance at their grades with little regard for feedback (Waller & Papi, 2017).

A similar link between students’ feedback preferences and their feedback seeking orientations was noted in the present study. Table 5.1 summarizes the major themes and subthemes from the study that fit within a feedback seeking orientation and which subthemes align with a feedback avoidance orientation. An additional category identifies the areas where more research is needed to determine the link between theories of implicit intelligence and students’ feedback preferences. The following types of feedback were found to align with a feedback seeking orientation: instructor feedback, verbal feedback, global writing concerns, immediate feedback, and incremental feedback. Among the various types of feedback explored, students considered these forms to be the most useful and valuable to their writing development. As students described their individual learner characteristics, it was clear these feedback interactions made them feel as though they had an active role in their learning. Additionally, it
was evident students were more motivated by these forms of feedback because they presented opportunities for identifying errors as a route to skill mastery, which is a component of incremental view emphasized by Dweck (2000). Overall, students indicated they are more likely to take advantage of feedback and closely examine their work when it is provided to them by their instructors, presented in a verbal manner, addresses their global writing concerns, attained in a timely fashion, and is broken down throughout the instructional period.

Table 5.1. Students’ Feedback Preferences and Correlating Feedback Seeking vs. Feedback Avoidance Orientations

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Contrastingly, students’ aversion toward peer reviews, written and digital modes of feedback, and local writing concerns were found to align with a feedback avoidance orientation. In Waller and Papi’s (2017) study, a feedback avoidance orientation represented a predisposition toward performance-related feedback, or feedback that is directly associated with students’ grades. As students described their interactions with peer reviews, written and digital feedback and local writing concerns in the present study, it was evident these forms of feedback do little to cultivate students’ writing development and cause students to develop a passive role in the feedback process. Furthermore, students indicated peer reviews and local writing concerns
expose their weaknesses as writers and threaten their perceived intelligence. As a result, students feel removed or disengaged from these learning opportunities, which is a common characteristic of entity theory (Dweck, 2000). Finally, because students did not describe any specific experiences with delayed feedback or aggregated feedback, more information is needed to link theories of implicit intelligence to these forms of feedback.

Just as Waller and Pappi (2017) presented preliminary evidence on how students’ views of writing intelligence help shape their writing motivation, applications of their model in the present study helped to provide implications and additional insights on agricultural communications students feedback orientations and preferences. This correlation between students’ feedback preferences and a feedback seeking versus a feedback avoidance orientation was an important link to make because it helped to reveal the types of feedback best suited for fostering an incremental view of writing ability, including instructor feedback, verbal feedback, global writing concerns, immediate feedback, and incremental feedback. Ultimately, an incremental view of writing intelligence benefits both students and instructors by improving learning outcomes such as setting learning goals instead of performance goals, alleviating negative mindsets to maintain motivation, and intervening with the right form of feedback to enhance the quality of writing instruction. In addition to having a better theoretical understanding of how students perceive and respond to feedback, the misalignments that exists within the various themes and subthemes provided several recommendations for practice. The following recommendations address each of the emerging themes explored.

**Recommendations for Practice**

First, participants indicated they value instructor feedback over peer feedback as a source of delivery. In practice, peer reviews were described as the dominant source. Students recognized peer reviews as a useful tool for identifying writing errors and engaging in the feedback process.
However, they contended that peer feedback generally lacks consistency and authority, causing them to devalue or disregard comments provided to them by their peers. To improve the current imbalance between these sources of feedback delivery, instructors should rely less on peer reviews and incorporate more direct feedback. In doing so, instructors can draw more meaningful connections between students’ writing and any areas that need improvement.

Second, digital feedback was identified as the primary mode used to communicate feedback to students. According to participants, digital and written modes of feedback are often not as effective when compared to verbal feedback approaches. Although digital feedback is the most common mode of feedback used in today’s classroom environment, students underscored how digital comments are often insubstantial. These same limitations were also extended to written feedback. Whenever possible, verbal responses should be used to provide students with positive or negative feedback about their writing. This may be achieved through classroom discussions, one-to-one meetings, or verbal recording applications available in some course management systems. When using variations of written or digital feedback, comments should be thorough and detail-oriented. In some cases, it may be appropriate to follow written or digital feedback with a verbal response to reinforce the feedback statement.

Third, as students progress into advanced level courses, they expect more conceptual- or structural-level feedback over grammatical or lexical-level revisions. Participants were satisfied with current practices and no major misalignments were noted. Students desired a balance between addressing global and local writing concerns. Instructors should continue providing this balance while gradually incorporating more and more global feedback to advance students’ writing skills. However, they should also be mindful of students who may need additional local feedback as they move along the revision process. Such decisions should be made on a case by
case basis as students do not have the same writing skills and educational background.

In terms of feedback timing, students agreed immediate feedback is preferable to delayed feedback or no feedback, and that it is the best method for addressing their writing errors. Few experiences with delayed feedback were noted, however students indicated delayed feedback is typically absent or inadequate following written exams. By providing feedback that is relevant and timely, instructors can help to prevent errors and improve retention. Immediate feedback may also improve student-instructor relations by keeping a dialogue open as students approach revisions. If circumstances hinder the application of immediate feedback, then a delayed feedback approach should be exercised rather than avoided.

Another pattern uncovered in the study considered students’ preferences towards the amount of feedback they are given. This pattern emerged as an extension to discussions involving feedback timing. Participants indicated that feedback is easier to manage when it is introduced to them gradually rather than cumulatively. By breaking up revisions into smaller increments, students feel less overwhelmed and better equipped to address errors in their writing. Students described this approach as a form of incremental feedback or a multi-layered process for perceiving, understanding and evaluating the input they have received. To avoid overwhelming students, instructors should consider categorizing or compartmentalizing feedback into smaller units, or focusing on specific aspects of students’ writing to narrow the corrections that are needed. Another strategy might involve checking in with students during various points of the drafting process to help them work on their revisions in unison with their writing instead of treating editing as a separate activity. When it is not possible for instructors to provide incremental feedback, they might consider using a holistic approach to evaluate student work so that the focus is on the overall quality, proficiency or understanding of specific content or skills.
In cases where students struggle with errors, even on a holistic level, a verbal feedback intervention may be the best way to work with students through their mistakes. This was an important research finding because it revealed a feedback orientation that had not been considered within the initial framework of the study. Furthermore, it represents an area of interest to expand upon in future research.

**Implications**

Several implications surfaced as a result of the study. Concerning peer feedback, participants hinted at the potential consequences of requiring peer reviews as a graded activity. Future studies could help shed light on what these consequences are and how they influence feedback effectiveness. Participants also noted peer reviewers are generally involved in the earlier stages of the writing process and are more likely to focus on mechanical or grammatical errors. There may be other underlying reasons peer feedback is undervalued. By the same token, studies should consider instructor interventions during the drafting process and compare formative feedback to summative feedback. Such studies may provide useful insights on how to effectively provide the increments of feedback students desire. Additionally, the absence of feedback through written and digital modes presents a missed opportunity for both instructors and students. Researchers should explore how these feedback modes can be better utilized to enhance students’ writing development. Other modes of feedback, such as audio feedback, should also be considered. Similarly, additional information is needed about delayed feedback practices and whether or not they may be an effective tool for improving writing performance. Overall, more research is needed to investigate the interactions between the various feedback orientations and how overlap between feedback source, mode, types of writing concerns and timing can be used to students’ and instructors’ advantage in developing complex skills, such as writing.
Discussion on Factors that Diminish or Drive Writing Motivation

Overall, students used four indicators to rate the quality of the feedback they receive. These indicators included the level of depth and explanation (i.e., direct vs. indirect feedback), tone of the feedback statement (i.e., praise vs. criticism), student-instructor relationships (i.e., positive or negative connections) and levels of analysis (i.e., individual intelligence vs. social comparison and process and progress feedback). Additionally, the findings revealed a dichotomy between several of the indicators as well as the underlying factors that drive or diminish agricultural communications students’ writing motivation. Each category of indicators can be related back to the innate psychological needs outlined by self-determination theory which include the elements of competence, autonomy, and relatedness.

Concerning the content of the feedback statement, or the debate between direct and indirect feedback, direct feedback was found to be more useful to students’ writing development while indirect feedback was found to diminish writing motivation. Through clear and consistent revisions, direct feedback builds students’ competence, autonomy and relatedness by plainly demonstrating the skills they need to be successful writers. Opposingly, indirect feedback hinders skill development by failing to provide examples for guided practice, thus diminishing students’ ability to govern their learning and providing few opportunities for students to develop a rapport or sense of relatedness with their instructors. These findings are consistent with studies that support direct feedback as a method for helping students make sense of patterns of errors in their writing (Baker & Bricker, 2010; Bitchener, 2008; Moreno, 2004) and counter research that suggests indirect feedback leaves a positive impact for future learning (English, 1997; Goswami, 1992; Halford, 1993).

With regard to feedback tone, students indicated feedback is best delivered as a blend of praise and criticism, or what some might call constructive criticism. Too much praise inflates
students’ competence and autonomy to the point where they no longer feel the need to improve their writing skills. Too much criticism causes students to lose interest and experience feelings of defeat in their writing development. Such insights mirrored results from Henderlong & Lepper (2002) which demonstrated how praise can cause students to develop a false sense of validation. Similarly, the findings echoed the notion that criticism diminishes students’ writing motivation and threatens their competence (Gee, 1972). Thus, a balance between the two types of feedback tones are needed to support and instill optimal levels of competence, autonomy, and relatedness.

The dimension of student-instructor relationships revealed a new qualifying factor that expanded on Townsend’s approach for exploring the innate psychological needs of competence, autonomy, and relatedness. Similar to the tone of the feedback statement, students were found to have more writing motivation when they fostered positive relationships with their instructors. In doing so, students increase their competence through one-on-one instruction, gain a sense of autonomy in their work, and build a unique bond with their instructors. Contrastingly, student-instructor relationships that are negative in nature challenge students’ competence which causes them to feel less in control of their learning and removed from others. At the very least, a mutual level of respect is needed to maintain student-instructor relationships. In relation to SDT, this key finding demonstrates how the psychological need of relatedness can be enhanced through more meaningful student-instructor relations (Schunk, 2001).

Finally, the level of analysis instructors use to provide students with feedback was also found to impact students’ self-motivation to write. These levels of analysis included individual intelligence, social comparison, and process and progress feedback. According to students, each form of feedback had its own set of advantages. For example, while individual intelligence catered to the individual needs of students, social comparison helped shed light on what areas of
writing students can improve on compared to their peers. Additionally, process and progress feedback gave students the opportunity to keep an open dialogue with their instructors as they wrote multiple drafts and moved along the revision process.

Unlike other studies, all three levels of analysis were found to positively influence students’ self-determination to write. Critics argue that when feedback is directed towards students’ individual intelligence, students may develop insecurities about their competence or develop an inability to cope with setbacks (Dweck, 1996; Shell, Colvin & Bruning, 1995). Similarly, some studies have shown that social comparison feedback can cause students to question their achievements and lose intrinsic motivation (Deci & Ryan 1992; Henderlong & Lepper, 2002). These findings were inconsistent with the present study. Rather than threatening students’ psychological needs, these forms of feedback worked to build and expand students’ competence, autonomy, and relatedness as they learned from their own mistakes as well as from their peers and instructors. One possible reason for this discrepancy may have resulted from students reporting that social comparison feedback is not a widely used practice in their courses. Therefore, there are less opportunities for social comparison feedback to demotivate agricultural communications students’ motivation to write. Additionally, several students articulated a sense of superiority when comparing their writing skills to their peers. In this way, social comparison feedback may actually incentivize students to outperform their peers. By the same token, this sense of superiority may help explain why students are also accepting of individual intelligence feedback. If students hold themselves to a high standard, they may already be intrinsically motivated to push towards higher levels of achievement and view feedback as a tool for honing their skills. Future studies should consider what internal and external variables influence students’ perceptions of individual intelligence and social comparison feedback.
Recommendations for Practice

As a result of the study, several recommendations and best practices were identified for helping motivate agricultural communications students as they approach the revision process. First, feedback statements should be direct, thorough, and detail-oriented. Students desire clear explanations and examples of how their writing can be improved. While this process can be time consuming for instructors, it has the potential to pay off in the long run by helping students recursively review their writing, identify patterns, and prevent future errors. Over time, this may reduce the amount of corrections needed and keep students engaged in their writing (Baker & Bricker, 2010; Bitchener, 2008; Moreno, 2004). Additionally, direct feedback helps students justify their grades, which often serve as a form of extrinsic motivation; however, indirect feedback should not be ruled out altogether as students may learn to realize the benefits of this approach if introduced to the concept properly and given time to adapt their expectations.

Second, when feedback is shared, the tone of the feedback statement must be taken into consideration. Following the “oreo” or “peanut butter and jelly sandwich” approach is one way instructors can achieve a balance between praise and criticism. This approach includes offering a positive comment, highlighting areas for improvement, and ending with another positive comment. Furthermore, it supports Townsend’s (2014) observation that praise is not necessarily more successful than criticism when it comes to improving students’ writing motivation. Because both too much praise or criticism can be damaging to students’ writing motivation (Gee, 1972; Smith, 1974), it may also be best to err on the side of caution and opt to meet with students individually when multiple mistakes are made or when commending them for their work. In these situations, face-to-face comments can lead to more meaningful and productive conversations by accentuating the positive and softening any negative remarks.

To foster positive student-instructor relationships, instructors can encourage office hours,
set aside class time for student conferences, or make time before or after class to meet with students. While not all students need or desire the same level of connectedness, instructors can make a good faith effort by regularly checking in with students and keeping lines of communication open. In the more extreme cases where students may be struggling with their writing and developing negative attitudes towards their coursework, instructors might reach out to students individually and attempt to level with them on revisions. This might also require working with students to help them adopt a more professional writing style without losing their voice or sense of creative agency.

Lastly, in terms of the level of analysis used to provide students with feedback, instructors can continue providing a combination of feedback messages that are based on students’ individual intelligence or social comparison of their peers. Another mutually beneficial strategy includes requiring assignments that involve multiple drafts to deliver process or progress feedback. This approach not only breaks up the responses and revisions required of students, but also fragments the amount of time and energy instructors need to provide students with quality feedback, rather than requiring them to do so in a summative manner. Instructors might consider creative ways to break up larger assignments to initiate this process. Ultimately, this may help students to feel more accepting of any setbacks they may have experienced (Dweck, 1996).

Implications

The intersection of motivation research and writing studies provides a unique perspective for exploring the complex issues involved in writing, including students’ interactions with feedback and revisions (Townsend, 2014). Undoubtedly, feedback requires a significant investment of an instructor’s time, energy, and resources to provide students with quality comments. Additionally, students might not choose to act on the feedback, which increases the challenge of keeping both instructors and students involved in the writing process. Future
research studies should consider how deeper engagement can be achieved through the application of different feedback modes, and consider how different types of feedback affects students’ self-determined motivation to write. One possible objective might be to identify which modes of feedback serve as the most productive use of an instructor’s time while meeting students’ needs. Furthermore, researchers should also consider instructors’ perceptions of feedback including the unique challenges they face along with what tools or strategies can be used to help them overcome instructional barriers. After all, instructors’ intentions with feedback may not match students’ perceptions of feedback. Future studies should continue to explore what discrepancies may exist. In addition to expanding writing research using self-determination theory, there may be other theoretical lenses or perspectives for investigating how feedback drives or diminishes self-determined motivation.

Revised Conceptual Model

Based on the results of the study, the conceptual framework outlining the role of feedback on writing self-efficacy and self-determined motivation was revised. Figure 5.1 illustrates the revised model for the role of feedback on agricultural communications students’ self-efficacy and self-determined motivation to write. Components highlighted in green represent new findings or the theoretical contributions of the study. At the center of the model are the sources of information from which students develop their self-efficacy beliefs. These categories include two sources that expand upon interpretations of mastery and vicarious experience, two sources hypothesized by Bandura, as well as two alternative sources confirmed by Holmes (2016) and Usher (2009), and a new source of information (i.e., types of courses) identified in the study that expands upon the existing frameworks. The revised model also includes the external factors influencing students’ feedback preferences including source of delivery, feedback mode, types of writing concerns, and feedback timing. Feedback intervals, or the
amount of feedback given during the course of an instructional period, was added. Additionally, the revised model captures the internal factors that diminish or drive agricultural communications students’ self-determined motivation to write which includes the broader categories of level of depth and explanation, feedback tone, and level of analysis. Student-instructor relationships was a new interacting determinant found in the study; therefore, it was included in the revised model.

Finally, the outer components of the model are connected by the underlying source of social persuasion, which was identified as a significant source of agricultural communications students’ writing self-efficacy through feedback messages and perceived value of writing. As Abby stated: “During my time at Iowa State, feedback has been the most helpful thing influencing my self-efficacy and has shaped some of the greatest growth that I've experienced in my writing.” In this dissertation, social persuasion serves as a key link in the three-in-one model; however more research is needed to fully investigate the relationships between the other variables represented. For example, there are parallels between process or progress feedback students internalize, and the external experience of receiving incremental feedback. Both approaches narrow the type and amount of feedback given, allowing students to focus and improve on specific aspects of their writing. Similarly, instructor modeling may serve as a counterpart to direct feedback or instructor feedback desired by students, and simultaneously build writing self-efficacy while maintaining motivation. Furthermore, the relationship between social persuasion and the debate between praise versus criticism deserves further exploration given the dual role feedback tone plays in diminishing and driving writing motivation. A quantitative examination of these concepts would help to demonstrate additional correlations that exist between self-efficacy and motivation.
ROLE OF FEEDBACK ON WRITING SELF-EFFICACY & SELF-DETERMINED MOTIVATION

Figure 5.1. Revised Conceptual Framework

Students’ Perceptions of Writing Self-Efficacy

- Writing performance and background
- Modeling and assignment expectations
- Social persuasion
  - Physiological and emotional states
  - Self-regulated writing strategies
  - Types of writing
  - Types of courses

Factors Influencing Students’ Feedback Preferences

- Feedback mode
- Source of delivery
  - Types of writing concerns
  - Feedback timing
  - Feedback intervals

Factors that Diminish or Drive Self-Determined Motivation to Write

- Level of depth and explanation
- Feedback tone
  - Internal
  - External

Theories of Implicit Intelligence
(Dweck, 2000)

Social Cognitive Theory
(Bandura, 1977) (Holmes, 2016) (Usher, 2009)

Self-Determination Theory
(Deci and Ryan, 2002)
Overall, the revised model features a multidimensional view of feedback and the independent variables of implicit intelligence and self-determination that function separately as well as interactively to predict the dependent variables of self-efficacy explained by social cognitive theory. While theories of implicit intelligence seek to explain the external variables influencing students’ experiences with feedback, self-determination theory serves as a lens for exploring the internal feedback variables that students use to maintain motivation in the writing process. Together, these theories work to influence and inform students’ writing self-efficacy. The revised conceptual framework demonstrates the various ways feedback interacts with students’ writing self-efficacy and can serve as a useful tool for future studies on agricultural communications students’ writing development.

Implications for Future Research

The theoretical, methodological, and contextual contributions of this dissertation offer several directions for future research. First, additional studies that apply long-standing frameworks, such as social cognitive theory, theories of implicit intelligence, and self-determination theory, are needed to provide insights on how to improve writing instruction while increasing the theoretical rigor of agricultural communications research and practice. A major contribution of the present study was the adaptation of these theories to form a model for examining the role of feedback in agricultural communications’ students writing self-efficacy. This adaptation allows for feedback to be investigated in a number of situational and instructional contexts, and its use could easily be extended to other forms of feedback, such as audio feedback or self-assessment feedback. The model also has potential for future studies comparing students’ perceptions of feedback to instructors’ perceptions of feedback. Such studies would help to reveal the attitudes, positioning, and purpose of feedback from an instructor’s point of view and serve as a useful reflective tool for increasing awareness and addressing problematic areas when preparing writing instruction.
Another major contribution of the study included the rich qualitative data that was used to make sense of the complexities involved in the writing process, including the relationship between feedback, motivation, and students’ writing performance. While the phenomenological qualitative methods used in the present study were beneficial in providing this foundation, additional quantitative measures, such as a survey, would help to verify and expand upon the research findings. Furthermore, studies might consider content analysis as a research tool for identifying specific writing issues within agricultural communications students’ writing samples, and developing a scale to measure the relationship between self-efficacy and feedback variables or identify what factors play the most important role in informing agricultural communications students’ writing self-efficacy beliefs. Such steps would expand critical inquiry and enhance the rigor of the model used in the present study.

A third area in need of further investigation relates to the participants and context in which the present study was conducted. Due to the unique nature of the agricultural communications program at ISU, future research studies should be replicated within other individual agricultural communications programs and across institutions to determine how feedback impacts students’ writing development. Future research studies could also be extended to different populations of students who use writing to learn in their science or agriculture related courses. Such efforts would help to advance writing across the curriculum in a variety of academic fields and disciplines. Another context for potential variation includes the specific assignments or classrooms in which feedback is given. Studies might consider how feedback is perceived in classes that meet more frequently or for longer durations, or compare face-to-face and online learning environments.

The findings presented in this dissertation come together to demonstrate the role of feedback in agricultural communications students’ writing self-efficacy and self-determined motivation. In a broader sense, the results provide a holistic approach to writing instruction
focusing on students’ writing development, their navigation of the writing process through classroom experiences, and their feedback on course content and assignments. Future studies should continue pursuing a holistic approach to writing instruction and consider the various factors influencing writing such as the environment in which writing occurs and students’ individual learner characteristics. In turn, these efforts will help better prepare agricultural communications graduates with the written communications skills they need to be successful in the workforce.

**Limitations**

This study was based on a strong theoretical foundation using Bandura’s (1977) social cognitive theory, Dweck’s (2000) theories of implicit intelligence, and Deci and Ryan’s (2002) self-determination theory. The study design, methodology, and analyses were carefully selected to contribute to the investigation of the role of feedback in agricultural communications students’ writing self-efficacy and self-determined motivation. The sample population selected for this study was purposefully chosen in order to access agricultural communications students who have experience receiving feedback about their writing in their courses at ISU. However, this sample selection limits the generalizability of the findings because they are representative of students in a specific context and do not represent all agricultural communications students. However, the findings make an important contribution to the investigation of the role feedback plays in students’ writing development and may be replicated within other individual agricultural communications programs, across institutions, or among other disciplines. Additionally, as a graduate of the agricultural education – communications option at ISU, the positionality of the primary investigator posed a threat of introducing bias into the study. This bias was mitigated through the use of external coders who were invited to review the data in an effort to maintain objectivity, compare results, and check for consistency.
References


Iowa State University
OF SCIENCE AND TECHNOLOGY

Institutional Review Board
Office for Responsible Research
Vice President for Research
2420 Lincoln Way, Suite 2202
Ames, Iowa 50014
515-294-4966

Date: 08/27/2019
To: Haley Banwart
From: Office for Responsible Research

Title: Examining the Role of Feedback on Agricultural Communications Students' Writing Self-Efficacy: A Case Study

IRB ID: 19-365
Submission Type: Initial Submission

Exemption Date: 08/27/2019

The project referenced above has been declared exempt from most requirements of the human subject protections regulations as described in 45 CFR 46.104 or 21 CFR 56.104 because it meets the following federal requirements for exemption:

2018 - 1: Research, conducted in established or commonly accepted educational settings, that specifically involves normal educational practices that are not likely to adversely impact students’ opportunity to learn required educational content or the assessment of educators who provide instruction. This includes most research on regular and special education instructional strategies, and research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.

2018 - 2 (ii): Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) when any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation.

The determination of exemption means that:

• You do not need to submit an application for continuing review. Instead, you will receive a request for a brief status update every three years. The status update is intended to verify that the study is still ongoing.

• You must carry out the research as described in the IRB application. Review by IRB staff is required prior to implementing modifications that may change the exempt status of the research. In general, review is required for any modifications to the research procedures (e.g., method of data collection, nature or scope of information to be collected, nature or duration of behavioral interventions, use of deception, etc.), any change in privacy or confidentiality protections, modifications that result in the inclusion of participants from vulnerable populations, removing plans for informing participants about the study, any changes that may increase the risk or discomfort to participants, and/or any change such that the revised procedures do not fall into one or more of the regulatory exemption categories. The purpose of review is to determine if the project still meets the federal criteria for exemption.
• All changes to key personnel must receive prior approval.

• Promptly inform the IRB of any addition of or change in federal funding for this study. Approval of the protocol referenced above applies only to funding sources that are specifically identified in the corresponding IRB application.

Detailed information about requirements for submitting modifications for exempt research can be found on our website. For modifications that require prior approval, an amendment to the most recent IRB application must be submitted in IRBManager. A determination of exemption or approval from the IRB must be granted before implementing the proposed changes.

Non-exempt research is subject to many regulatory requirements that must be addressed prior to implementation of the study. Conducting non-exempt research without IRB review and approval may constitute non-compliance with federal regulations and/or academic misconduct according to ISU policy.

Additionally:

• All research involving human participants must be submitted for IRB review. Only the IRB or its designees may make the determination of exemption, even if you conduct a study in the future that is exactly like this study.

• Please inform the IRB if the Principal Investigator and/or Supervising Investigator end their role or involvement with the project with sufficient time to allow an alternate PI/Supervising Investigator to assume oversight responsibility. Projects must have an eligible PI to remain open.

• Immediately inform the IRB of (1) all serious and/or unexpected adverse experiences involving risks to subjects or others; and (2) any other unanticipated problems involving risks to subjects or others.

• Approval from other entities may also be needed. For example, access to data from private records (e.g., student, medical, or employment records, etc.) that are protected by FERPA, HIPAA or other confidentiality policies requires permission from the holders of those records. Similarly, for research conducted in institutions other than ISU (e.g., schools, other colleges or universities, medical facilities, companies, etc.), investigators must obtain permission from the institution(s) as required by their policies. An IRB determination of exemption in no way implies or guarantees that permission from these other entities will be granted.

• Your research study may be subject to post-approval monitoring by Iowa State University’s Office for Responsible Research. In some cases, it may also be subject to formal audit or inspection by federal agencies and study sponsors.

• Upon completion of the project, transfer of IRB oversight to another IRB, or departure of the PI and/or Supervising Investigator, please initiate a Project Closure in IRBManager to officially close the project. For information on instances when a study may be closed, please refer to the IRB Study Closure Policy.

Please don’t hesitate to contact us if you have questions or concerns at 515-294-4566 or IRB@iastate.edu.
The project referenced above has been declared exempt from most requirements of the human subject protections regulations as described in 45 CFR 46.104 or 21 CFR 56.104 because it meets the following federal requirements for exemption:

2018 - 1: Research, conducted in established or commonly accepted educational settings, that specifically involves normal educational practices that are not likely to adversely impact students' opportunity to learn required educational content or the assessment of educators who provide instruction. This includes most research on regular and special education instructional strategies, and research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.

2018 - 2 (ii): Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement, survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) when any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation.

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- You do not need to submit an application for continuing review. Instead, you will receive a request for a brief status update every three years. The status update is intended to verify that the study is still ongoing.

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that the revised procedures do not fall into one or more of the regulatory exemption categories. The purpose of review is to determine if the project still meets the federal criteria for exemption.

- All changes to key personnel must receive prior approval.

- Promptly inform the IRB of any addition of or change in federal funding for this study. Approval of the protocol referenced above applies only to funding sources that are specifically identified in the corresponding IRB application.

Detailed information about requirements for submitting modifications for exempt research can be found on our website. For modifications that require prior approval, an amendment to the most recent IRB application must be submitted in IRBManager. A determination of exemption or approval from the IRB must be granted before implementing the proposed changes.

Non-exempt research is subject to many regulatory requirements that must be addressed prior to implementation of the study. Conducting non-exempt research without IRB review and approval may constitute non-compliance with federal regulations and/or academic misconduct according to ISU policy.

Additionally:

- All research involving human participants must be submitted for IRB review. Only the IRB or its designees may make the determination of exemption, even if you conduct a study in the future that is exactly like this study.

- Please inform the IRB if the Principal Investigator and/or Supervising Investigator end their role or involvement with the project with sufficient time to allow an alternate PI/Supervising Investigator to assume oversight responsibility. Projects must have an eligible PI to remain open.

- Immediately inform the IRB of (1) all serious and/or unexpected adverse experiences involving risks to subjects or others; and (2) any other unanticipated problems involving risks to subjects or others.

- Approval from other entities may also be needed. For example, access to data from private records (e.g., student, medical, or employment records, etc.) that are protected by FERPA, HIPAA or other confidentiality policies requires permission from the holders of those records. Similarly, for research conducted in institutions other than ISU (e.g., schools, other colleges or universities, medical facilities, companies, etc.), investigators must obtain permission from the institution(s) as required by their policies. An IRB determination of exemption in no way implies or guarantees that permission from these other entities will be granted.

- Your research study may be subject to post-approval monitoring by Iowa State University's Office for Responsible Research. In some cases, it may also be subject to formal audit or inspection by federal agencies and study sponsors.

- Upon completion of the project, transfer of IRB oversight to another IRB, or departure of the PI and/or Supervising Investigator, please initiate a Project Closure in IRBManager to officially close the project. For information on instances when a study may be closed, please refer to the IRB Study Closure Policy.

Please don't hesitate to contact us if you have questions or concerns at 515-294-4565 or IRB@iastate.edu
APPENDIX B. INVITATION TO PARTICIPATE

Participant Recruitment Email – Fall 2019
Send Week of September 9

Subject Line: Invitation to Participate in Ag Comm Study

The agriculture industry depends on agricultural communicators to present scientific information and convey complex issues to diverse audiences. To fulfill the demands of the profession, agricultural communicators must possess strong written communication skills.

In an effort to improve written communication skill mastery, I am performing a study exploring the role feedback plays in developing agricultural communications students writing self-efficacy, or their confidence in their writing abilities.

As part of this study, I will be conducting one-on-one interviews with junior and senior agricultural communications students throughout the fall semester. If you meet this criteria and are at least 18 years of age or older, I invite you to participate.

Participation will require two on-campus interviews and the completion of a short reflective exercise designed to examine your experiences as a writer and the types of writing feedback you have received. Participants will also be asked to share three writing samples that they have completed throughout the semester. All personal identifiers will be removed from these samples to protect participant identities.

Each interview will last up to one hour. The reflective exercise and selection of writing samples will be completed prior to the second interview.

Eligible participants will receive a $25 Amazon gift card for their participation in the study.

If you have any questions, please contact me at hbanwart@iastate.edu or 515-320-5385.

Thanks for considering!

Haley Banwart

**Haley Banwart**
Ph.D. Agricultural Education - Student
hbanwart@iastate.edu
515-320-5385
Participant Recruitment Email – Spring 2020
Send Week of January 13

Subject Line: Share Your Ag Comm Experience, Receive $25 Amazon Gift Card

Hi (insert first name),

The agriculture industry depends on agricultural communicators, like you, to maintain open communication, present scientific information and convey complex issues to diverse audiences. To fulfill the demands of this profession, agricultural communications graduates must possess strong written communication skills.

In an effort to better prepare agricultural communications graduates for the important role they serve, I am performing a study for my dissertation exploring the role feedback plays in developing agricultural communications students writing self-efficacy, or their confidence in their writing abilities.

As part of this study, I am conducting one-on-one interviews with junior and senior agricultural communications students. If you meet this criteria and are at least 18 years of age or older, I invite you to participate!

Here are some basics about participating in the study:
- Participation will require two on-campus interviews and the completion of a short reflective exercise. These interviews will ask you to share your experiences as a writer and the types of writing feedback you have received.
- You will also be asked to share three writing samples that you have completed in your courses at ISU. Please note that all personal identifiers will be removed from these samples to protect participant identities.
- Interviews will be scheduled at a date and time that works best in your schedule. Each interview will last no longer than one hour.
- Finally, eligible participants will receive a $25 Amazon gift card for participation in the study.

Your experiences as a student in the agricultural communications undergraduate program matter. Therefore, your participation in this study would serve as a valuable contribution in helping further support and develop the essential writing skills agricultural communications graduates need to share agriculture’s story.

Thanks for considering!

Haley Banwart

Haley Banwart
Ph.D. Agricultural Education - Student
hbanwart@iastate.edu
515-320-5385
APPENDIX C. INTERVIEW PROTOCOL AND REFLECTIVE EXERCISE

Interview Protocol Form #1

Examining the Role of Feedback on Agricultural Communications Students’ Writing Self-Efficacy

Institution: ________________________________________________

Interviewee: _______________________________________________

Interviewer: ________________________________________________

Other Topics Discussed: _______________________________________

Documents Obtained: _________________________________________

_________________________________________________________________

Documents Obtained: _________________________________________

_________________________________________________________________

Documents Obtained: _________________________________________

Post Interview Comments or Leads:

_________________________________________________________________
**Getting Started**

Introductory Protocol

*With your consent, I would like to audio tape our conversation today to help facilitate note-taking. Please know that the audio recording and notes taken today will be used for research purposes only. Thank you for agreeing to participate.*

*This interview will last no longer than one hour. During this time, I have several questions that I would like to cover. If time begins to run short, it may be necessary to interrupt you in order to push ahead and complete this line of questioning.*

Background of Study

I have asked you to speak with me today because you have been identified as an upperclassman in the agricultural communications program who has experience receiving feedback about your writing in your courses at ISU. This research study focuses on exploring how feedback plays a role in the development of your writing self-efficacy or the confidence you have in your abilities as a writer. The following interview questions will prompt you to think about how you perceive yourself as a writer in your courses and ask you to describe the types of feedback you receive about your writing. Additionally, this study aims to attain information about how you perceive the quality and usefulness of such feedback.

*Before we get started, do you have any questions at this time?*

Interviewee Background:

Describe yourself as a student.

What is your year and major(s) at ISU? ____________________________

Why did you choose to major in agricultural communications? _____________

What are your career goals? ____________________________

1. What types of courses are you currently enrolled in at ISU? (**Avoid course names/titles.**)

Probes: What would you say is your best subject this semester? Why?

What subject do you feel is your weakest? Why?

What is your favorite subject to write about? Why?

What subject is your least favorite to write about? Why?
2. Tell me about yourself as a writer.

Probes: What types of writing assignments do you complete in your courses?

What percentage of your assignments are focused on writing?

How would you describe your approach to writing assignments? In other words, what is your process?

What sort of work habits do you have when working on a writing assignment?

Tell me about a time you experienced a setback when working on a writing assignment. How did you deal with it?

Tell me about a time when you were working on a writing assignment you felt great about. Why do you think you felt this way?

3. Describe your instructors’ approach to teaching writing.

Probes: How do you think your instructors would describe you as a writer?

What sorts of things do your instructors tell you about your performance on writing assignments?

How do your instructors make you feel about your ability as a writer?

Describe the best instructor you’ve had for writing. What made her or him so good?

What could your instructors do to help you feel more confident about your writing abilities?

Under what conditions do you perform well on writing assignments? Under what conditions do you perform not as well? Why?

4. Describe the types of feedback you receive in your courses about your writing.

Probes: Can you give me any examples?

Can you give me any examples of written feedback you have received?

Can you give me any examples of verbal feedback you have received?

Can you give me any examples of audio feedback you have received?

What about global feedback or comments regarding content, organization and clarity of purpose of your writing?
What about local feedback or comments regarding word choice, grammar and punctuation in your writing?

How do your instructors generally provide you with feedback about your writing?

How do your peers generally provide you with feedback about your writing?

What is your reaction to the feedback you receive about your writing?

5. Overall, how would you describe your writing self-efficacy?

Probes: On a scale of 1-10, what level of writing self-efficacy do you generally experience when working on writing assignments?

Why do you think you feel this way when approaching a writing task?

How would you describe the progression of your writing self-efficacy from freshman year to today?

How does feedback influence your beliefs about yourself as a writer?

What types of feedback negatively enforces your beliefs about your writing?

What types of feedback positively enforces your beliefs about your writing?

Anything else you would like to add?
Interview Protocol Form #2

Examining the Role of Feedback on Agricultural Communications Students’ Writing Self-Efficacy

Institution: ________________________________________________

Interviewee: ______________________________________________

Interviewer: ______________________________________________

Other Topics Discussed: _____________________________________

_________________________________________________________

Documents Obtained: _______________________________________

_________________________________________________________

_________________________________________________________

Post Interview Comments or Leads:

_________________________________________________________
Getting Started

Introductory Protocol

*Following the same format as the first interview, I would like to audio tape our conversation today with your consent to help facilitate note-taking. Please know that the audio recording and notes taken today will be used for research purposes only. Thank you for agreeing to participate.*

*This interview will last no longer than one hour. During this time, I have several questions that I would like to cover. If time begins to run short, it may be necessary to interrupt you in order to push ahead and complete this line of questioning.*

Background of Study

The purpose of this follow-up interview is to further explore your writing self-efficacy by considering the value or effectiveness of the feedback you receive about your writing. Throughout the interview I may ask you to cite specific examples by referencing the writing samples you have submitted. However, if other examples come to mind please feel free to share those in addition to any evidence demonstrated in your writing samples. Using the reflective exercise you have completed as a guide, the following interview questions will prompt you to think about the quality and usefulness of the writing feedback you have received in your courses.

Reflective Exercise Overview:

1. Describe the writing sample you have selected representing a high level of self-efficacy.

   Probes: How did the assignment allow you to experience this level of self-efficacy?

   What type of global feedback did you receive about your writing?

   What type of local feedback did you receive about your writing?

   How did the feedback make you feel about your ability as a writer?

   Did you feel the feedback was adequate? How so?

   In what ways was the feedback useful to your growth as a writer?

   In what ways was the feedback useless to your growth as a writer?

   Overall, what effect did the feedback you received on this assignment have on your writing self-efficacy?
2. Describe the writing sample you have selected representing a low level of self-efficacy.

Probes: How did the assignment allow you to experience this level of self-efficacy?
What type of global feedback did you receive about your writing?
What type of local feedback did you receive about your writing?
How did the feedback make you feel about your ability as a writer?
Did you feel the feedback was adequate? How so?
In what ways was the feedback useful to your growth as a writer?
In what ways was the feedback useless to your growth as a writer?
Overall, what effect did the feedback you received on this assignment have on your writing self-efficacy?

3. Describe the writing sample you have selected representing a neutral level of self-efficacy.

Probes: How did the assignment allow you to experience this level of self-efficacy?
What type of global feedback did you receive about your writing?
What type of local feedback did you receive about your writing?
How did the feedback make you feel about your ability as a writer?
Did you feel the feedback was adequate? How so?
In what ways was the feedback useful to your growth as a writer?
In what ways was the feedback useless to your growth as a writer?
Overall, what effect did the feedback you received on this assignment have on your writing self-efficacy?
Writing Self-Efficacy Reflective Exercise

Summary Statement

Feedback plays a powerful role in helping students become effective writers and can serve as an important source of self-confidence. To further capture the types of feedback agricultural communications students receive at Iowa State University (ISU), you will be asked to select three writing samples and submit them to the researcher prior to the second interview.

These writing samples will reflect work completed throughout the semester and will represent the following:

- one sample in which you experienced a high level of writing self-efficacy
- one sample in which you experienced a low level of writing self-efficacy
- one sample in which you experienced neither a relatively high or low level of writing self-efficacy

***Important Note: Before submitting your writing samples, please remove all personal identifiers such as your name, the title or number of the course in which the assignment was completed, the name(s) of your instructors and any other information that would allow the reader to directly identify you as the author of these samples.

What is writing self-efficacy?

Before selecting your samples, let’s briefly explore the definition of writing self-efficacy. The term self-efficacy refers to an individual's beliefs in their ability to complete a specific task or achieve a goal. While emotions such as fear and anxiety can often undermine our sense of self-efficacy, feelings of assurance and poise can give us the confidence we need to persevere.

For example, you may experience high levels of self-efficacy when making small talk or socializing with friends, but if you’re really nervous about making a good impression at a particular event, your sense of self-efficacy may decrease.

The same concept can be applied to your experiences as a writer. Writing self-efficacy is an individual’s beliefs about their ability to perform writing tasks successfully. In this study, we will examine both the global and local feedback you have received about your writing in relation to your writing self-efficacy. Global feedback refers to big picture aspects of your writing such as content, organization and clarity of purpose. In contrast, local feedback focuses on more narrow writing basics such as word choice, grammar and punctuation.
Selecting Your Writing Samples

The purpose of the exercise below is to help you reflect on the types of feedback you have received about your writing in the courses you have taken as an agricultural communications student at ISU. Using your writing samples as a reference, consider how this feedback has influenced the extent of your writing self-efficacy.

Please fill out the table provided below as a guide for selecting your writing samples. You may include any supporting details you would like to share. Your samples and information will be reviewed by the researcher and explored further during the second interview at the end of the semester.

***As a reminder, please remove all personal identifiers as described in the Summary Statement section above before submitting your work.

<table>
<thead>
<tr>
<th>Level Writing Self-Efficacy</th>
<th>Describe the course in which this sample was assigned? Please do not use course numbers or titles. (e.g., agronomy, journalism, animal science)</th>
<th>When was this assignment submitted in the semester? (e.g., Week 2)</th>
<th>Why did you select this sample to represent a high/low/neutral level of writing self-efficacy you have experienced? Please write approximately 250 words.</th>
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