

Introduction

Strong writing skills are critical for people in a variety of careers, and increases in technological advancements are only contributing to the importance of quality writing (Laurinavicius, 2016). Writing is not only a crucial skill, but also one highly sought after by employers (Bradford, 2019). In fact, one study ranked writing as the third most desired skill in an employee, only behind leadership and teamwork (Moore, 2016b). When employees have the ability to write well, they can become indispensable members of an organization. Those who are good writers are often good thinkers, as they can clearly organize their thoughts and words (Bradford, 2019; Soloman, 2018).

While writing is viewed as a skill of high regard and demand, the fact that businesses have invested billions of dollars on remedial writing training suggests employees are not equipped with suitable writing skills (Moore, 2016a). In fact, many human resources personnel believe writing is one of the more considerable gaps in overall employee skillsets (Moore, 2016a; Solomon, 2018). Further, some suggest nearly a quarter of college graduates are not only poor writers, but also lack general communication skills (Moore, 2016a). The awareness of substandard writing is unfortunately well-established, as is the associated concern (Goldstein, 2017).

As college and university faculty seek to cultivate better student writing skills, a variety of strategies and approaches to teaching writing have been implemented. However, Lingwall and Kuehn (2013) argued that the Millennial generation – many of whom are in or entering the workforce – have not profited from writing courses. Even as universities attempt to tackle the issue associated with poor writing skills, there is little evidence of improvement in overall writing technique (Lingwall, 2010). Therefore, in order to improve students' writing skills, educators must adopt new ways of teaching that account for constant technological advancements (Lingwall & Kuehn, 2013). As a first step to improve writing skills, it is important to understand how students perceive their writing abilities relative to their actual writing abilities (Lingwall & Kuehn, 2013). If educators acknowledge their students' perceptions of the writing process, they can incorporate instructional approaches and techniques to help them become better writers.

One common method used to assess students' writing self-perceptions involves the reflection process. Self-reflection allows students to assess their current work compared to where they want to be and helps to encourage closing the potential existing gap (Lam, 2018). The encouragement of continual self-reflection can aid students in becoming more successful writers. The role of reflection has been explored in agricultural communications courses. For example, practicing self-reflection can lead to increased student self-efficacy (Leggette et al., 2019). As an additional benefit of reflection, students may also become stronger critics of their own writing (Redwine et al., 2017). Written reflections assessed in one agricultural communications course also indicated growth within the students as writers (Leggette et al., 2016).

The importance of self-reflection in gaining insights to self-perceptions as students partake in the writing process cannot be overstated. However, other factors associated with students' overall writing self-perceptions must also be explored. As students and teachers work to collectively establish and build strong writing skills, an understanding of student self-perceptions about their writing abilities may lend further insights to a student's feelings and beliefs about writing. Educators who seek to meet the demands of employers hiring agricultural communications students should take note of the importance of improving students' writing self-

efficacy (Morgan, 2012). To help achieve this goal, instructors can utilize the Media Writing Self Perception (MWSP) Scale to better understand factors associated with students' writing abilities (Lingwall & Kuehn, 2013). While this study is not the first to utilize the MWSP Scale in evaluating self-perceptions of student writers, relationships between writing assignments and self-perceptions have not been evaluated. In this study, we explored the role of writing assignment scores and media-writing self-perceptions in an agricultural communications course.

Conceptual Framework

Self-Efficacy

Self-efficacy is an individual's belief in their ability to complete or perform a behavior (Bandura, 1997) and is applied in cognitive, motivational, emotional, and situational selection processes (Bandura, 1993). Student self-efficacy beliefs contribute to their motivation levels, aspirations, and accomplishments. To measure self-efficacy, individuals often rely on successes or failures of their individual experiences (Schunk, 2003). Those with low self-efficacy often stray from challenges, have weak goals and levels of commitment, and are more affected by failure (Bandura, 2010). In contrast, those with high self-efficacy experience increased motivation, an eagerness to engage in larger and more challenging goals, and to use failures as lessons learned. Student self-efficacy is impacted depending upon the strategies, feedback, goal setting, and self-evaluations implemented throughout a course and within a learning environment (Schunk, 2003). From a standpoint of improving self-efficacy, instructional methods that incorporate modeled strategies, progress feedback, goal setting, and self-evaluations can improve self-efficacy in classrooms (Schunk, 2003).

The application of self-efficacy can be linked the skill of writing. Writing self-efficacy is influenced by a student's self-perception of their own ability to write. To improve students' writing skills, it is important instructors understand students' motivations and desires to succeed related to writing – a task accomplished by measuring students' levels of writing self-efficacy (Lingwall & Kuehn, 2013).

Writing Apprehension

A contributing factor to writing self-efficacy involves a student's apprehension toward writing and the writing process in general. Writing apprehension is commonly measured in terms of anxiety or avoidance of writing (Faigley et al., 1981). Much like its counterpart of writing self-efficacy, levels of writing apprehension also affect a student's experience in the writing process. It is common for students with low apprehension toward the writing process to feel more confident about their writing skills. However, this confidence does not always lead to success. Over-confidence in writing abilities can result in a lack of attention to detail and the occurrence of increased mistakes (Fischer & Meyers, 2017). In contrast, students with high apprehension tend to ignore instruction about writing due to high levels of anxiety. In turn, anxiety and apprehension toward writing can be reflected in students' work (Faigley et al., 1981). In their study, Faigley et al. (1981) found students with low levels of writing apprehension scored higher than those with high levels of writing apprehension on both a writing competency test and an essay.

Measuring writing self-efficacy and writing apprehension

Several measures have been created to measure writing self-efficacy and writing apprehension. In an effort to explicate these components at the collegiate level, Lavelle (1993) created the Inventory of Processes in College Composition to measure writing self-efficacy and writing apprehension using five factors: elaborationist, low self-efficacy, reflective-revisionist, spontaneous-impulsive, and procedural. These factors were conceptualized based upon prior studies to create and verify an instrument that would evaluate variation in writing styles (Lavelle, 1993).

Later, Lavelle and Zuercher (2001) used the Inventory of Processes in College Composition to study writing process approaches in relation to students' beliefs of themselves as writers. The researchers applied the results to the develop the approaches-to-writing framework, another method for teaching writing skills. From this study, it was also determined that as students' positive perceptions increased, actual skills increased simultaneously (Lavelle & Zuecher, 2001).

Continuing the line of inquiry, Lavelle and Guarino (2003) further investigated the approaches-to-writing framework with added emphasis on students' intentions when writing compared to the writing outcome. They argued for the importance of examining students' writing under various circumstances and recommended encouraging students to think more deeply when writing (Lavelle & Gaurino, 2003). From an instructor standpoint, Lavelle and Guarino (2003) also found that combining all five of the Inventory of Processes in College Composition factors made it easier to understand the approaches-to-writing framework.

Having found evidence more recently that suggested new college students were only moderately-proficient writers, along with a lack of consensus on how to address improving student writing (Lingwall, 2010), Lingwall and Kuehn (2013) developed the Media Writing Self-Perception (MWSP) Scale to learn more about student perceptions of their own writing abilities. The MWSP Scale works by assessing both student self-efficacy and writing apprehension across five constructs: elaborative/surface, reflective/revisionist, writing self-efficacy, writing apprehension, and social media/professional (Lingwall & Kuehn, 2013). The total MWSP score is calculated using a formula developed by Lingwall and Kuehn (2013) by subtracting the sum of the negative-valence items from the sum of positive-valence items. The varying number of positive and negative items in each construct identified by Lingwall and Kuehn (2013) results in a range of scores unique to each construct.

In agricultural communications, recent studies have explored writing self-efficacy, writing apprehension, and overall writing self-perceptions from various methodological perspectives. Through semi-structured interviews, Ahrens et al. (2016) gathered students' perceptions of communication and writing apprehension and found students prefer small class sizes, less group work, more speaking opportunities, more critical feedback, and a recognition to overcome apprehension on a personal level. Ahrens et al. (2016) recommended that instructors align their instruction with these emergent themes to tailor lessons to improve students' writing skills.

Similarly, Fischer and Meyers (2017) found that through writing intensive courses, students' writing apprehension may decrease by incorporating activities such as peer reviews, editing exercises, practice with writing, self-reflection, learning how to organize information, and lessons regarding the use of correct grammar, spelling, and punctuation. Leggette et al. (2019) used the MWSP Scale to determine the effect of reflections on student growth compared

to the student's own perceptions of their skills and concluded those who engaged in reflection throughout the semester improved their overall MWSP score.

As described above, previous studies have explored how to improve students' writing skills using different strategies and approaches. The MWSP Scale (Lingwall & Kuehn, 2013) provides a robust way to assess students' writing self-efficacy and writing apprehension as it encompasses five factors to provide a nuanced understanding of students' perceptions about writing. By collecting and analyzing this information, writing instructors can use these insights to create strategies to help students become skilled writers, well positioned for professional careers in media (Lingwall & Kuehn, 2013).

Purpose and Research Questions

The purpose of this study was to explore agricultural communications students' writing apprehension, writing self-efficacy, and writing self-perceptions using the Media Writing Self-Perception Scale (Lingwall & Kuehn, 2013) during a writing intensive course. While previous studies, such as Leggette et al. (2019) focused on the value of reflection exercises in increasing student self-efficacy and MWSP scores, this study more closely examined the relationship between student media writing self-perceptions and writing assignment performance. Therefore, the study was guided by the following research questions:

1. How did students' MWSP scores change from the beginning to the end of the semester?
2. What relationship, if any, existed between students' MWSP scores and scores on major writing assignments in the course?
3. How did the students describe any changes in their MWSP scores as a result of the course?

Methods

The population of this study was undergraduate students within an upper-level, writing-intensive agricultural communications course at Texas Tech University. Most of the 31 students enrolled in the course were agricultural communications majors. A major component of this course was a service-learning project in which students worked with self-selected clients to develop three specific written materials – a personality profile, a news release, and a blog post. Approval from the Texas Tech University Institutional Review Board at (IRB) was obtained prior to data collection.

The MWSP Scale was the primary instrument used in this study. As the purpose involved comparing scores and perceptions over the time of an entire course, the instrument was administered at the beginning of the semester and the end. The researchers followed the recommendations of Lingwall and Kuehn (2013) who suggested the MWSP Scale be administered toward the beginning of a course in conjunction with other writing tests or lessons about foundation topics, such as grammar, spelling, and punctuation to achieve optimal evaluations. Using a quantitative, pretest-posttest design, 26 students completed the Media Writing Self-Perception (MWSP) scale at both at the beginning and end of the semester for self-assessment and discussion (Lingwall & Kuehn, 2013). Completing the instrument was a required activity in the course, but not all students completed the instrument at both points in time

potentially because of time constraints commonly associated with the end of an academic semester. The MWSP Scale instrument is comprised of 50 Likert-type questions to assess perceptions within five specific constructs: elaborative/surface (EL), reflective/revisionist (RR), self-efficacy (SE), writing apprehension (WA), and social media/professional (SMP). The MWSP Scale was administered to students on the Qualtrics online platform.

At the conclusion of the semester, students were presented with their scores from both the pretest and posttest MWSP Scale and were encouraged to reflect and respond to four open-ended questions. These questions prompted students to reflect upon their thoughts about changes in their scores and feelings toward writing. Students recorded their responses to the four reflection questions on paper during class time, and the responses were collected for further analysis. The four questions were:

1. What strategies/assignments/activities this semester may have influenced a change in your writing perception score?
2. What were your reactions to reviewing your scores from the beginning of the semester compared to your most recent scores?
3. After taking this course, what area of writing is most exciting to you?
4. As a writer, what area do you need to continue to improve upon?

Measures

All of the items on the MWSP Scale instrument were measured on 5-point Likert type scales. An individual score for each construct was calculated by adding the associated items with positive valence together and subtracting the sum of negative valence items within the construct. Lingwall and Kuehn (2013) provided a detailed guide to calculate the construct and overall MWSP scores. Fifty total items were included in the MWSP Scale and the number of items within each construct varied from six to eight positive items, and one to five negative items. This variety in number of items coupled with the breadth in potential response, depending upon the student's rating of each statement, resulted in a different range of scores for each construct.

Elaborative/Surface (EL)

Elaborative Surface (EL) measures what students “think about the writing process” and what feelings are associated with “the task of writing, improving [their] writing, and learning about writing” (Lingwall & Kuehn, 2013, p. 383). Lavelle and Guarino (2003) described the difference in elaborative/surface writing as either taking a proactive, complex manner when writing or writing in a simple manner. EL scores can range from a maximum of 31 to a minimum of -13 and are measured using 11 items. Scoring high on the EL construct indicates that a student puts time and effort into their writing, possesses a high level of engagement, and sees themselves as a “deep” writer who thinks about their writing and enjoys it (Lavelle & Zuercher, 2001). To measure this construct, participants rated their level of agreement to statements such as: *I practice my writing outside of class*. Participants rated their agreement from 1 = *not at all true of me* to 5 = *completely true of me* on a five-point, Likert-type scale. Reliability for this measure was ensured *a priori* via a Cronbach's alpha test ($\alpha = .71$).

Reflective/Revisionist (RR)

Lingwall and Kuehn (2013) defined Reflective/Revisionist (RR) as the amount of time and effort a student exerts to write, engage with, and edit their draft. This construct also measures a more thorough approach to writing. High scores for this measure mean students understand the growth and change that occurs in writing when revising a paper (Lavelle & Guarino, 2003). This approach accounts for a sophisticated student who wants to learn by doing even if that means work beyond any one assignment. Calculated using 11 items, RR scores vary from 25 to -19. Those who score high in this measure enjoy making their work as strong as possible. An example of a reflective/revisionist statement was: *When I know I've got a writing assignment due, I start working right away*. Participants rated their agreement from 1 = *not at all true of me* to 5 = *completely true of me* on a five-point, Likert-type scale. Reliability for this measure was ensured *a priori* via a Cronbach's alpha test ($\alpha = .72$).

Self-Efficacy (SE)

The Self-Efficacy (SE) score refers to the degree of confidence a student maintains about their writing abilities and is measured via nine items. These scores range from a high of 39 to a low of 3, with a higher score indicating a higher level of confidence. Students who are less confident tend to be more apprehensive about writing (Lavelle, 1993). Many factors may affect a student's level of self-efficacy including praise, previous successes or failures, as well as the learning environment itself. A student's self-efficacy should be developed and maintained for them to continue being effective learners (Schunk, 2003). Building self-efficacy can be strengthened by decreasing anxiety, building stamina, and improving emotional states (Bandura, 2012). To measure self-efficacy, participants rated their level of agreement to statements such as: *I can write a paper that connects the different paragraphs in a coherent way*. On this measure, participants rated their agreement on two response scales within the instrument from 1 = *strongly disagree* to 5 = *strongly agree* and 1 = *not at all trust of me* to 5 = *completely true of me* on five-point, Likert-type scales. A Cronbach's alpha test was conducted to establish reliability *a priori* ($\alpha = .77$).

Writing Apprehension (WA)

Writing Apprehension (WA) determines a student's level of anxiety or worry toward writing (Lingwall & Kuehn, 2013). WA scores vary from 31 to -13 and were measured using 11 items. The student's approach to writing, whether with ease or anxiety, determines their apprehension. This unique approach is displayed through behaviors such as student work and attitudes, length of assignments, and the depth of ideas (Faigley et al., 1981). WA has been found to be related to both students' self-perceptions and overall self-esteem (Daly & Wilson, 1983). Students' writing apprehension was measured with statements such as: *I have a hard time choosing the right words while I write*. Participants rated their agreement from 1 = *not at all true of me* to 5 = *completely true of me* on a five-point, Likert-type scale. Reliability for this measure was ensured *a priori* via a Cronbach's alpha test ($\alpha = .83$).

Social Media/Professional (SMP)

The Social Media/Professional (SMP) construct was created due to the need to improve students' writing in the area of social media (Lingwall & Kuehn, 2013). SMP measures the degree to which students believe their levels or quality of writing used for social media and texts could be used in a professional setting. Eight items were used to calculate these scores, which range from a maximum of 28 to a minimum of -4. To measure this construct, participants rated their level of agreement with statements such as: *My writing skills will not be an important factor in whether I am promoted in my profession*. Participants rated their agreement on a five-point, Likert-type scale using two response options from 1 = *strongly disagree* to 5 = *strongly agree* and 1 = *not at all true of me* to 5 = *completely true of me*. Reliability for this measure was achieved *a priori* via a Cronbach's alpha assessment ($\alpha = .70$).

Data Analysis

The MWSP scale is a "reliable and effective tool to discriminate between different types of writers" (Lingwall & Kuehn, 2013, p. 379). A pilot test using the MWSP Scale was conducted in the same course one semester prior to establish reliability for the instrument's constructs and to test the survey process from beginning to end (Dillman et al., 2014). To analyze the quantitative data and to address research question one, paired sample t-tests were conducted to compare scores from 26 students on the pretest and posttest. To address research question two, given the small sample size, Spearman correlations were also conducted to determine any relationships (Field, 2018) between scores on the MWSP scale and graded scores on two major assignments – the personality profile and blog post. The client profile and client blog were selected for analysis as these assignments were submitted the most closely to the beginning and end of the semester, respectively. Twenty-six student responses were included in this analysis. Individual scores for each of the five constructs were calculated first. Then, to calculate the total MWSP score, 27 positive valence questions were added together while the 23 negative valence questions were totaled. The negative total was then subtracted from the positive total to yield the total MWSP Scale score.

To address research question three and analyze the qualitative data, the students' self-reflection responses to each question were transcribed into Microsoft Word and analyzed using inductive coding techniques outlined by Saldaña (2013). Individual codes were categorized into higher-level themes within the dataset. These procedures allowed for a more in-depth understanding of group perspectives and the opportunity to uncover prevalent themes within the data in order to understand specific issues. A complete description of the data were maintained, which were categorized by topic (Creswell, 2013). Peer debriefing was implemented to ensure trustworthiness (Creswell & Creswell, 2017).

Results

Research question one sought to determine any differences in students' media writing self-perception scores at the beginning of the semester compared to the end. A paired samples t-test was conducted for the total MWSP score and each of the five constructs (Lingwall & Kuehn, 2013). A statistically significant difference in pretest and posttest scores was found for the total MSWP score and three of the constructs (Table 1).

Table 1

Group Differences for Students' MSWP Scores Between Semester Beginning and Semester End (n = 26)

Score	Semester Beginning		Semester End		<i>t</i> (25)	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Total MWSP	24.81	27.98	37.19	29.76	-4.71	< .05
Elaborative / Surface	7.88	7.35	11.12	7.25	-3.65	< .05
Writing Self-Efficacy	24.62	7.01	29.08	7.19	-5.88	< .05
Writing Apprehension	6.46	8.54	2.81	7.65	4.08	< .05
Reflectionist / Revisionist	4.23	7.10	5.73	9.26	-1.24	.23
Social Media / Professional Writing	5.46	4.55	5.92	4.12	-0.61	.55

A paired samples t-test revealed a significant difference between total MWSP scores, which increased from the beginning of the semester compared to the end of the semester, $t(25) = 4.71, p < .05$. The increase in scores indicated students participating in the study enjoyed and felt more confident in writing at the end of the semester ($M = 37.19, SD = 29.76$) than the beginning ($M = 24.81, SD = 27.98$). The potential range for the total MWSP score was 112 to -88. In this study, the range for the total MWSP score was 86 to -54.

For the student elaborative/surface construct, a paired samples t-test showed a statistically significant difference in mean scores from the beginning of the semester to the end, $t(25) = 3.65, p < .05$. Students reported being more positive about their writing and its importance to them at the conclusion of the semester ($M = 11.12, SD = 7.35$) than at the beginning of the semester ($M = 7.88, SD = 7.25$). For this construct, the potential range was 31 to -13, and the scores for students who participated in this study ranged from 23 to -9.

An additional paired samples t-test revealed statistically significant differences in students' writing self-efficacy scores from the pretest to the posttest, $t(25) = 5.88, p < .05$. Students' means indicated they were more confident about writing and completing assignments later in the semester ($M = 29.08, SD = 7.19$) than at the beginning ($M = 24.62, SD = 7.01$). Scores for the writing self-efficacy measure could range from 39 to 3. In this study, scores ranged from 38 to 8.

The student writing apprehension scores were also assessed, and a paired samples t-test revealed a statistically significant difference in scores, $t(25) = 4.08, p < .05$. A review of associated means revealed students reported being more anxious at the beginning of the semester ($M = 6.46, SD = 8.54$) than at the end of the semester ($M = 2.81, SD = 7.65$). Scores for this measure could range from 31 to -13. A range of 29 to -9 was found for this construct.

Finally, a paired samples t-test revealed no significant changes in reflective/revisionist construct mean scores, $t(25) = 1.24, p = .23$. This finding indicated no significant change in how much they enjoyed editing, reviewing, and revising before reaching a level of happiness about their final drafts. Likewise, a paired samples t-test found no statistically significant difference in social media/professional writing pretest and posttest scores, $t(25) = .61, p = .55$. Scores here could vary from 25 to -19 and ranged from 19 to -16 for participants in this study. On this construct, scores between 14 and -15 were observed.

Research question two investigated what relationship, if any, existed between students' MWSP scores and grades on the two major writing assignments in the course. Each writing assignment was worth a maximum of 100 points. The average score on the client profile was 90.4, with a range from 70 to 99, and the average score on the client blog was 89.5, with a range from 70 to 100.

There was a significant positive correlation between MWSP pretest scores and the client personality profile assignment scores ($r = .65$), meaning higher grades on the client profile are associated with higher scores on the MWSP pretest score. There was also a significant positive correlation between MWSP posttest scores and student scores on the client blog, ($r = .71$), which indicated higher grades on the client blog related to higher scores on the MSWP posttest (Table 2).

Table 2

Correlations between MWSP Scores and Assignment Grades (n = 26)

	MWSP Pretest Score	Client Profile Grade	MWSP Posttest Score	Client Blog Grade
MWSP Pretest	1	.65*	-	-
Client Profile Grade	.65*	1	-	-
MWSP Posttest	-	-	1	.71*
Client Blog Grade	-	-	.71*	1

*Note. Correlation is significant at the 0.05 level.

Finally, research question three aimed to better understand how the students perceived any changes experienced in their MWSP scores and how they thought experiences in the course may or may not have contributed to a change. To address this research question, students were presented with both sets of their MWSP scores and were instructed to respond to four reflection questions on the last day of class. Twenty-eight responses were collected.

First, students were asked to share what strategies, assignments, or activities during the semester they thought may have influenced a change in their writing perception scores. During the semester, students completed three main assignments – a personality profile, a blog post, and a news release – in addition to class work and other writing assignments. A variety of themes were identified about the activities and assignments from the coursework. The theme of “writing practice” was present as the data revealed students indicated a preference to complete a practice assignment before their client project (students completed a practice assignment for each of the three major assignments that addressed an instructor-selected topic). As one student shared:

The applied activities followed by client activities really helped me understand the different types of writing. I think this extra work, instead of rushing straight to client work, helped me reflect more on the necessary format and style of each project and refine it.

Another theme that emerged was “writing feedback.” This theme involved the benefit of receiving edits and reviewing each major assignment prior to the final draft being due. One student said, “I feel like having my papers peer edited made me more confident in my writing.” Additionally, “practical experience” was present as a theme as some students said they appreciated the opportunity to work with real clients to complete assignments that could pertain to a real job.

The second reflection question aimed to better understand the students’ reactions to comparing scores from the pretest and posttest. The theme identified when analyzing these responses was “range of emotions.” Students said they felt surprised, happy, and confident, or that they felt neutral about their scores. For those whose scores improved, they noted the improvement with comments such as, “Just a little bizarre to see how someone can change throughout one semester and a writing class.” Another student said: “I am honestly surprised. I knew that my writing had improved, but I didn’t know it had improved that much.” Some students recognized only small changes in their scores from the beginning to the end of the semester. Many of these students commented on the small or overall lack of change within their individual scores, but differed in how they described the lack of change. As one student shared: “There wasn’t much change actually. If there was a change as far as scores go, I don’t think I had much improvement.” In contrast, another student shared a more positive response to the lack of major changes: “My scores did not change too much, but they all improved a little, which doesn’t surprise me. This course definitely improved my confidence in writing.”

Next, students were asked what area of writing explored during the course they were most excited about. The themes identified here dealt with specific types of writing: creative writing, blog posts, feature stories, and news writing. Students who enjoyed the creative assignments shared statements such as: “I like the area of writing that allows me to be myself and show myself,” and “I’m most excited by blog writing as it allows me a little more flexibility and creativeness.” Others indicated they enjoyed more structured assignments such as this comment: “I loved writing the news release. Being strictly fact-based made it much easier to complete.”

The final reflection question aimed to uncover what students felt they could continue to improve upon as writers. This question encouraged students to reflect and think about areas for continued growth. The themes identified were “mechanics and style” and “the writing process.” More specifically, students identified four key areas of continued improvement: 1) grammar, spelling, and punctuation; 2) Associated Press style; 3) planning the writing process and taking initiative; and 4) writing concisely and creating a better flow or organization to their papers. Students provided varying responses for the final question; however, they were predominately optimistic in nature. For example, one student said: “I need to work on my creativity as a writer and conciseness. I have yet to master writing phrases in the simplest form.” Another student shared: “I would like to improve on my procrastination as a writer. I let papers ‘scare’ me then [I] enjoy them when I begin.”

Conclusions

Improving students' writing self-efficacy should be of importance for educators who seek to meet the demands of employers hiring agricultural communications students (Morgan, 2012). To meet these needs, agricultural communications instructors should strive to increase students' writing self-efficacy while decreasing their levels of writing apprehension (Fischer & Meyers, 2017). As this study and others have found, student self-efficacy toward writing has the potential to increase while writing apprehension can decrease when taking a writing course, especially when assignments are carefully crafted to help advance writing skills (Fischer & Meyers, 2017; Redwine et al., 2017). Students in agricultural communications course have preferences and suggestions to lessen writing apprehension (Ahrens et al., 2016) and those recommendations should be evaluated and implemented when possible. While the results of this study were generated using a small sample and are not generalizable, several insights can be drawn. In particular, this study found writing assignments with an emphasis on practicing skills were of particular value to students. At the same time, feedback from the instructor also helped the students improve their writing self-efficacy. Finally, assignments designed to mimic professional situations can be helpful to students in terms of thinking about their potential futures as writers or communications professionals.

A statistically significant difference between pretest and posttest total MWSP scores and three of the MWSP constructs was found. However, not all changes in construct scores were statistically significant. This finding illustrates that while some elements of self-perceptions toward writing can be influenced through assignments, activities, feedback, and other methods, the issue remains that writing and helping students to improve their overall self-perceptions and self-efficacies of their writing abilities is a complex undertaking. These varied results further strengthen the argument for using more than one measure to determine students' perceptions of their writing abilities (Lingwall & Kuehn, 2013). It is encouraging that positive writing self-perceptions and confidence in writing can increase and writing anxiety can lessen over just one writing course. However, more opportunities for students to reflect throughout the course's timeframe may lend additional insights as to the nature of these increases as they unfold, as Leggette et al. (2019) found.

When comparing the students' MWSP scores from the beginning of the semester to the end, the data suggest students generally grew to care more about their writing as the semester progressed. This change in effort and care likely cannot be attributed to one assignment or course experience as students engaged in numerous activities to improve their writing throughout the semester. However, the opportunity to complete rigorous writing assignments, receive feedback on those assignments, and take the time to reflect on the writing process during this course may have reduced anxiety about writing and improved confidence. These strategies have been proven beneficial in prior studies (Fischer & Meyers, 2017; Leggette et al., 2019; Redwine et al., 2017).

The two MWSP constructs without statistically significant differences between scores from the beginning of the semester to the end were reflective/revisionist and social media/professional. This finding may be explained in terms of class time spent on the topics. During the course in which the participants were enrolled, less time regarding instruction and practice was invested on aspects measured in these constructs. Reflection was encouraged, but was not directly connected to any graded assignments. At the same time, a lesson on social media writing was provided, but was not linked to a major graded assignment. The lack of a significant difference between social media/professional scores may suggest students placed

more emphasis on assignments and projects with higher point values and less emphasis on the in-class assignments that aimed to provide them with skills to address this newer, more dominant type of writing.

Through the reflection questions, students acknowledged the need to spend more time improving their planning and editing skills, which is related to the reflective/revisionist construct. Aside from limited instructional time in this area, the inability to find statistically significant differences for the reflective/revisionist construct from the beginning of the semester to the end may imply students did not improve or put more effort into the editing process or reflecting about their writing.

Students in this study with higher scores on their client personality profiles and client blogs tended to have higher total MWSP scores as well. This supports the relationship Faigley et al. (1981) found between writing apprehension levels and scores on an essay. This result implies helping students improve their writing self-perceptions can improve their performance on writing assignments. Receiving positive feedback and experiencing success in terms of writing may also help students grow in a more positive way pertaining to their writing self-perceptions. Although a correlation cannot determine a cause, future studies should explore the role of writing self-perceptions as a predictor of writing assignment grades.

While the MWSP scores illustrated how students perceived themselves as writers, having students reflect on their scores and potentially the changes in those scores provided meaningful insights. For students, reflecting can improve writing skills (Lam, 2018; Leggette et al., 2019; Redwine et al., 2017). Additionally, the reflection questions provided insight regarding student beliefs and feelings that benefit instructors. Leggette et al. (2019) incorporated the use of multiple reflections throughout a semester to determine if the practice would improve scores on constructs within the MWSP scale. While our study only included one reflection session compared to the multiple reflection exercises in the Leggette et al. (2019) study, the students' comments demonstrated that the opportunity to reflect on their writing helped them recognize where they did make improvements, which may lead to improved writing self-efficacy.

Another beneficial finding from the reflection questions was the great variety in responses. The diverse responses suggest not all students find themselves to be good at or enjoy the same aspects about writing. However, the student responses indicated small things that can help them improve their writing skills, which instructors can then use to implement effective strategies and approaches in the classroom.

Recommendations

With the established need to equip college graduates with strong writing skills (Bradford, 2019; Moore, 2016b), we should continue exploring how to improve students' writing self-efficacy and address their writing self-perceptions. In regard to research, this study should be replicated to compare results across writing courses and across similar courses at other universities. It is also recommended future studies include larger sample sizes in order to calculate more rigorous statistics and effect sizes. The MWSP Scale serves as a reliable measure to determine nuanced elements that contribute to students' overall perceptions about their writing and can provide instructors with insights that can be implemented into both current and future writing-intensive courses. A replication study may help explain the lack of significant differences for the reflective/revisionist construct and the social media/professional construct. A comparison of writing activities and course content might also add further explanation regarding

factors that may or may not contribute to changes in scores. A better grasp of these influences is important to understand given the complex process required to help students learn to become better writers. If an instructor is aware of factors enabling student success, they can place emphasis on those to better aid students in strengthening their writing self-perceptions.

In terms of classroom application, it is recommended instructors utilize the MWSP Scale at the beginning of the semester to gather a baseline understanding. Instructors can then use this insight to integrate activities or assignments that would help address those self-perceptions. These strategies include discussing the writing process as gradual improvement and giving timely feedback to help students gain confidence and improve their writing self-efficacy. At the same time, future studies should be mindful of student performance in the writing course overall in addition to scores on major assignments. A comparison of overall grades along with MWSP scores could lend further insight to student writing self-perceptions.

As this study suggests, agricultural communications instructors should create opportunities for students to practice different styles of writing and develop assignments with a focus on real-world or practical application. However, this study found students were less confident in terms of grammar, spelling, punctuation, AP style, and concise writing. This implies instructors should pay special attention to providing feedback to help students correct mistakes and increase confidence with regard to the mechanics of writing. From a standpoint of teaching methods, future studies should explore the role of time spent teaching content aligned with the varying MWSP constructs and the construct scores.

While this study revealed many positive changes from the beginning of the semester to the end, no significant changes within the reflectionist/revisionist construct were noted. This construct aims to measure students' enjoyment of writing and the writing process. Future studies should investigate this construct more thoroughly to better understand the elements associated with writing that students enjoy, or may not enjoy as much. This information will be helpful to teachers and instructors as they strive to create more meaningful learning opportunities and assignments. Writing will likely always present challenges on some levels, but it seems reasonable to assume those who enjoy writing will be more equipped to grow into stronger writers over time.

Providing students with opportunities to reflect may also increase students' writing skills because reflection allows students to think about the successes and failures they may have encountered (Lam, 2018; Leggette et al., 2019; Redwine et al., 2017). A limitation of this study was a lack of multiple opportunities to reflect. While the semester-end reflections analyzed helped to generate a better understanding of student media writing self-perceptions, more opportunities for reflection throughout the course could help pinpoint more specific feelings and perceptions as the student engage in the writing process. When educators recognize their students' self-perceptions, they can implement strategies to help improve students' writing skills. As employers and previous researchers have noted, writing skills are valued and worth investing efforts to develop.

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