Confidence in Communication: Factors that Relate to Student Confidence in Communication Abilities

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Abstract

The Writing and Media Center (WMC) at Iowa State University plays an integral role in the formation of a capable student body. This ability is diminished, however, by an incomplete understanding of an essential psychological construct underlying one's ability to succeed: confidence. This research will generate a framework for understanding and increasing communication-specific confidence based on the characteristics of students who utilize the WMC. Past research on confidence has focused on uncovering various correlates of an individual's judgment of their ability. For example, the links that exist between general academic self-confidence and variables such as age, gender, and intelligence were studied to create an integrative confidence model. Similarly, this research will employ a Qualtrics survey to measure three factors hypothesized to impact communication confidence. Information regarding motivations for coming into the WMC, the stage of the writing process at which an appointment occurs, and the concerns expressed within a session will be collected. By gathering such data from the students who use the WMC, this research strives to create a framework of the various influences on communication-specific confidence. Intrinsic motivations for utilizing the WMC, doing so early in the writing process, and focusing on broader concerns are expected to be related to higher confidence. The WMC will utilize the findings to generate training and educational materials that work to increase the confidence of the student-writer community at Iowa State University. Furthermore, this study will provide insight into the capability of a service such as the WMC to influence the lives of the students it supports. By creating more confident communicators, this research will increase the global confidence of the entire writing center – and university – community.

Keywords: Writing centers, communication confidence, motivation

1. Introduction

Writing centers are an academic service that can be found on many university campuses across the nation; these services have the potential to significantly impact students' lives. Graduate and undergraduate students, native and acquired English speakers alike can all find assistance for any part of their communication within a university writing center.

Writing centers have been empirically proven to improve the academic performance of the students who visit them. Students who used writing center services achieved significantly higher grades than their peers who did not use the service[1]. This benefit also carried over to non-native English speakers, who not only attained higher grades, but also improved in their expression of ideas and the overall organization of their essays[2]. A study conducted through the Iowa State University Writing and Media Center (WMC) found that utilizing the service improved students' semester GPAs by 0.211 points and improved their cumulative GPAs by 0.199 – nearly one-half of a letter-grade improvement[3].

At Iowa State University, the WMC has a clear mission: helping students succeed by making them "stronger, more confident communicators"[4]. However, to fully accomplish this goal, a comprehensive understanding of confidence – and how to foster it in students – must be obtained.

Past research has addressed similar undertakings – the development of a broad model to understand the correlates of self-confidence – in various fields. For example, in undergraduate nursing students, gender and early levels of confidence served as predictors for self-confidence ratings throughout the educational program[5]. Similarly, gender stereotypes and individual and parent perceptions were investigated in an attempt to undercover the causes of higher confidence in boys than in girls[6].

Confidence has been used as a predictor variable – rather than an outcome variable – in studies, as well. General self-confidence was found to be related to affective variables such as happiness and loneliness, where low confidence was related to loneliness, and high confidence was related to happiness[7]. Within an academic setting, self-confidence was one of the most potent predictors of achievement and performance on a number of cognitive assessments. Additionally, high levels of domain-specific confidence were associated with high intelligence[8].

Furthermore, direct relationships have been identified between individuals' self-confidence and their performance in communication settings. When individuals are not confident in their abilities to communicate, doing so leads to lost or understated information. Moreover, unconfident speakers prefer to abstain from a communication environment altogether[9]. In a writing-centric investigation, it was found that writing self-confidence was a significant predictor of actual writing performance abilities. Increased confidence in writing abilities was also related to decreased writing anxiety[10].

Given the noteworthy effects of improved confidence – both in communication and in general – it is clear that writing centers should strive to develop confidence in the students they serve. However, a clear understanding of the components of confidence has yet to be obtained. In pursuit of filling this gap in understanding, this study identified three variables predicted to have an influence.

The first variable of interest was students' motivations for utilizing the WMC. Motivations were divided into two categories: intrinsic motivations and extrinsic motivations. Intrinsic motivations indicate an action completed for its own sake or due to an internal drive. Extrinsic motivations, alternatively, indicate an action completed for an external incentive; those with external motivations strive to obtain rewards or avoid punishments[11]. Previous research has suggested that as students who utilize writing centers progress and improve throughout a semester, they shift from having extrinsic motivations to having intrinsic motivations[12]. Intrinsic motivations in college students were found to be related to enhanced learning and higher levels of achievement[11], thus demonstrating the value of this shift.

The second variable for this study was the concerns that students addressed during a session at the WMC. As with motivations, concerns were categorized into two groups: higher-order concerns (HOCs) and lower-order concerns (LOCs). HOCs are broad, global issues in an individual's writing; these include such concerns as organization or the thesis of the paper. LOCs are smaller, local issues with concepts such as spelling, grammar, or punctuation[13].

The final variable of interest was the stage of the writing process at which the WMC session occurred. Four stages of this process were identified: planning, drafting, editing, and polishing. Planning refers to the brainstorming stage during which students consider what they will write and the kinds of resources they will use. Drafting involves creating an outline and writing an initial draft of the paper. Editing includes revision of the paper in search of grammatical errors, statements that need more support, or changes to aid the audience's understanding. Finally, polishing is the process of perfecting the paper – getting rid of small errors and making final changes[14].

In this study, the following research questions were addressed. (1) How effective is the WMC in its goal of improving students' communication confidence? (2) How are motivations for utilizing the WMC related to students' communication confidence? (3) How are the concerns addressed during a session related to students' communication confidence? (4) How is the stage of the writing process during which a session occurs related to students' communication confidence?

2. Methodology

2.1 Participants

There were 562 participants in this study. Fifty-five participants were excluded from analysis due to incomplete responses. Of the remaining 507 participants, 434 were undergraduates, and 140 were international students. Furthermore, 195 of the participants were first-time users of the WMC; the remaining 312 had used the service at least

once before. Each participant utilized the WMC during the Fall 2019 semester at Iowa State University. Participants were informed of the nature of the study and given the option participate, as indicated on an informed consent form.

2.2 Materials

Participants responded to several questions on an online Qualtrics form presented on an iPad following their WMC appointment. The first questions on this survey were routinely asked of students who utilize the service. These questions gathered demographic information, including the students' class standing (undergraduate or graduate), and first-generation and international student statuses. Additionally, students indicated whether they had used the WMC previously, and if they were satisfied with the services they received.

The second portion of the questionnaire included questions relevant to this study. The first three questions asked participants to rate their communication confidence before the WMC session, after it, and overall. Participants' ratings were indicated on a five-point Likert scale (1 = *very low* and 5 = *very high*). The next question asked about participants' goals when visiting the WMC. The options included items such as "to get a better grade" – indicating an extrinsic motivation, and "to become a better communicator" – indicating an intrinsic motivation. Next, participants were asked to select which step of the writing process they were in during their session. These steps were planning, drafting, revising, and polishing. In the final question, participants selected the primary concerns they focused upon in their session. The options included items such as organization, purpose, and thesis or focus – which are higher-order concerns, and spelling, grammar, and punctuation – which are lower-order concerns.

2.3 Procedures

Participants took part in the study after completing a session at the WMC. Upon completion of the session, students were asked if they would like to respond to a short survey, and told that there was a research study at the end in which they had the option to participate. Participants who chose to complete the survey first responded to the initial set of questions, which included demographics and feedback. After finishing this section, an informed consent form was presented to the participants. This form explained the nature of the study and gave participants an overview of the information that would be gathered. Students who expressed their agreement to participate were then taken to the next page of the Qualtrics survey, where they answered the remainder of the questions. Once participants completed the survey, they returned the iPad to a WMC employee, indicating the end of their session and their study participation.

3. Results

Each question was categorically coded to focus upon the variables of interest. For the question on motivations for using the WMC, the options were coded as "intrinsic" or "extrinsic." For the question on concerns addressed during a session, the options were coded as "higher-order concerns" or "lower-order concerns."

3.1 Overall Writing Center Effectiveness

Initial analyses focused upon the overall role of writing centers on increasing confidence. Before having a session at the WMC, participants' mean confidence rating was 3.08 (SD = 0.93). This value falls in the middle of the Likert scale, indicating that students, on average, felt neutral about their communication confidence. After a session, participants' mean confidence rating was 4.22 (SD = 0.68). This rating indicates that students, on average, rated their communication confidence as "high" or "very high" after visiting the WMC. A one-tailed paired t-test was conducted to test for significant differences in confidence ratings before and after a WMC session. This t-test revealed that participants experienced a significant increase in communication confidence after an appointment, $t(506) = 28.67$, $p < .001$. Figure 1 below illustrates the change in communication confidence before and after a session at the WMC.

3.2 Motivations

Supplemental analyses focused upon the role of the individual variables of interest in participants' communication confidence. In order to conduct these analyses, an additional confidence variable was created – change in confidence. This variable was created by subtracting a participants' confidence rating before an appointment from their confidence rating after an appointment, thus quantifying the change due to a writing center appointment.

The first variable that was analyzed was motivations for utilizing the WMC. The mean change in confidence for participants utilizing the WMC for extrinsic reasons was 1.10 (SD = 0.88). The mean change in confidence for participants utilizing the WMC for intrinsic reasons was 1.28 (SD = 0.95). A t-test comparing these changes found that those with intrinsic motivations experienced a statistically greater increase in confidence than those with extrinsic motivations, $t(505) = 1.72$, $p = .04$. Figure 2 depicts participants' changes in communication confidence ratings based on their motivations.
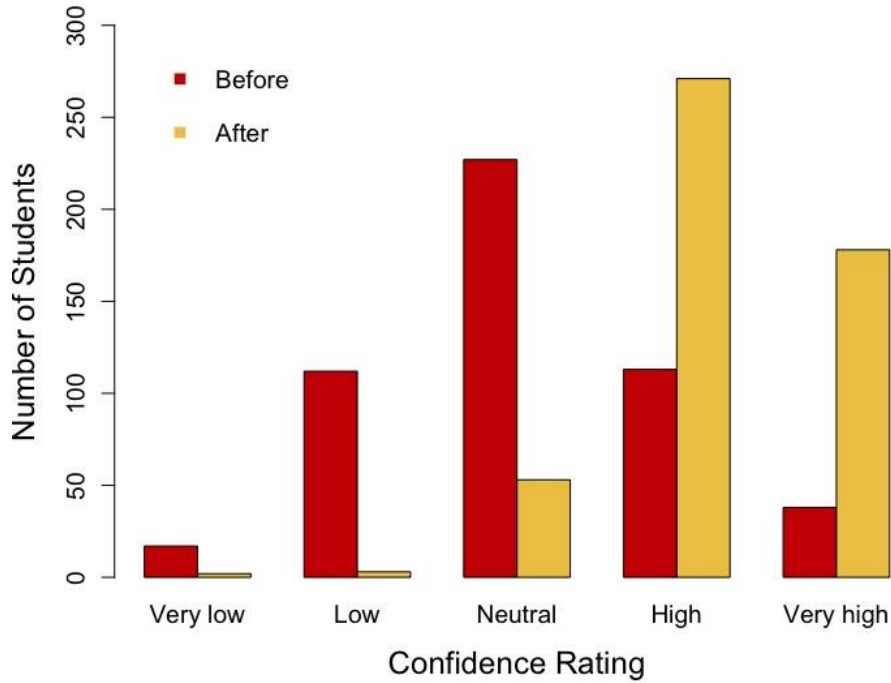
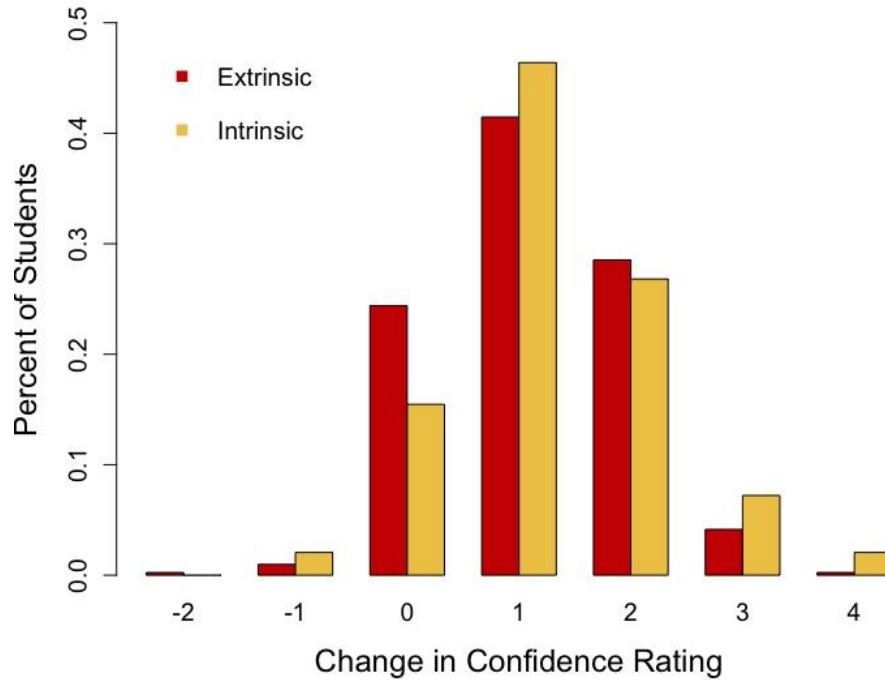Figure 1. Students' communication confidence ratings before and after a writing center appointment

Figure 2. Change in confidence ratings based on motivations for utilizing the writing center

3.3 Concerns

The following variable-specific analysis looked into the role of higher-order and lower-order concerns on the change in communication confidence. The mean confidence change for those who focused on LOCs was 1.07 (SD = 0.87). The mean confidence change for those who focused on HOCs was 1.18 (SD = 0.89). A t-test comparing these differences found that focusing on HOCs leads to a significantly greater increase in confidence than focusing on LOCs, $t(467)$, $p = 0.07$. Figure 3 graphs this relationship.
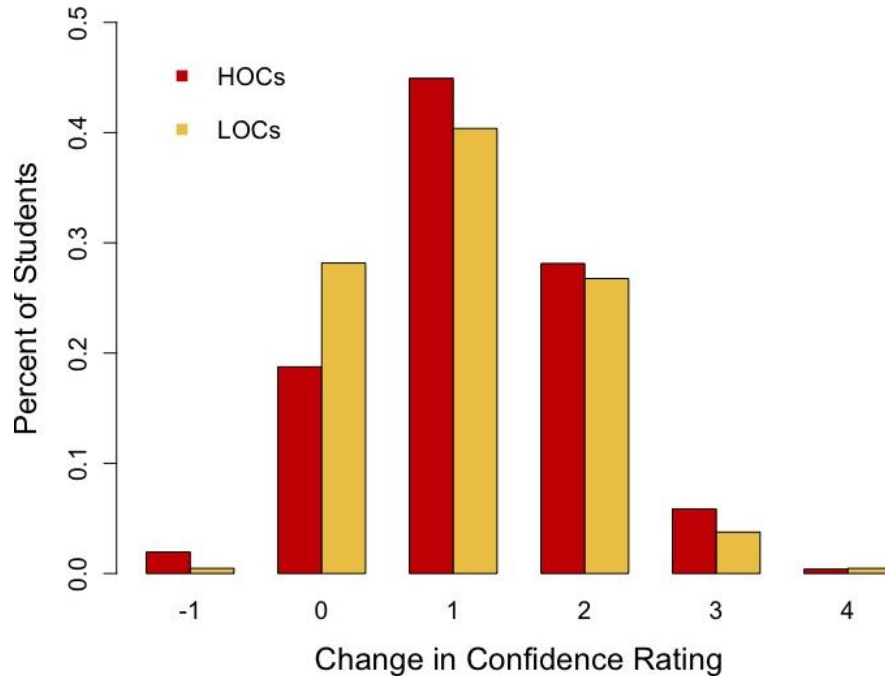
Figure 3. Change in confidence ratings based on concerns addressed during a session

3.4 Stage

The final variable-specific analysis focused on the relationship between the writing process stage and the participants' change in confidence. The average confidence increase for those in the planning stage was 1.37 (SD = 0.99). The average increase for those in the drafting stage was 1.12 (SD = 0.91). The average increase for those in the editing stage was 1.03 (SD = 0.86). The average increase for those in the polishing stage was 1.18 (SD = 0.89). Figure 4, below, graphically displays these values. Conducting multiple pairwise comparisons with the Bonferroni correction revealed that none of these stages were significantly different from any of the others. Thus, the stage of the writing process during which students utilize writing center services does not appear to be related to their confidence in their communication abilities.

3.5 Variable Interactions

The subsequent investigations focused upon identifying which variable – motivations or concerns – was related, on average, to a more significant confidence increase. The interactions between the variables were analyzed to examine this question. However, due to the small size of several of the groups used to assess variable interactions – and the resultant lack of statistical power – obtaining inferential statistics was not possible. Instead, measures of central tendency and spread were utilized and compared to uncover group differences relative to one another. Additionally, graphical measures were employed to obtain a visual estimate of these differences and elucidate the magnitude of any findings.
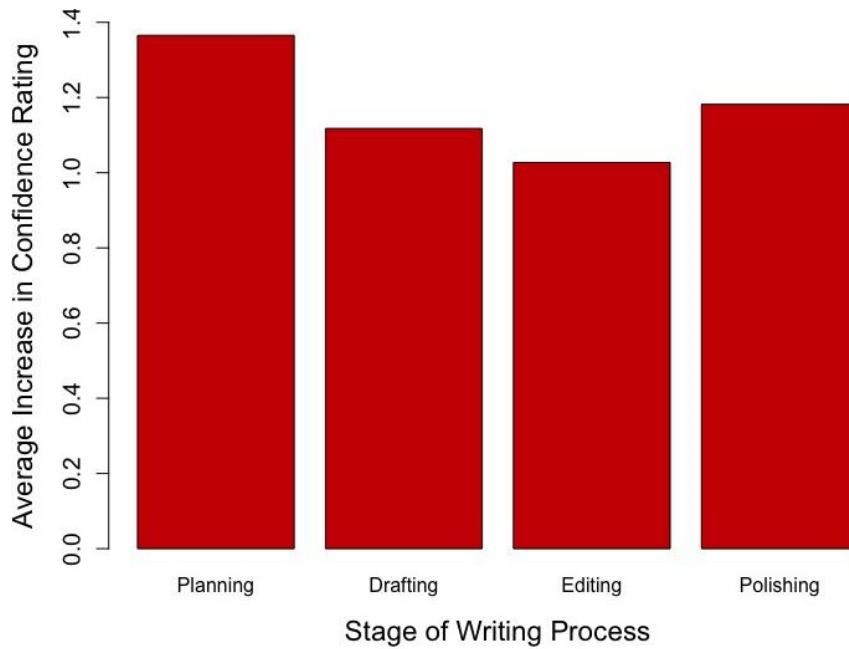
Figure 4. Mean change in confidence ratings based on the stage of the writing process

3.5.1 overall interactions

Preliminary interaction analyses looked at the sample as a whole. When students had both extrinsic motivations and focused on LOCs, the mean confidence increase was 1.03 (SD = 0.86). When students had intrinsic motivations and focused on LOCs, the mean confidence increase was 1.16 (SD = 0.86). When students had extrinsic motivations and focused on HOCs, the mean confidence increase was 1.20 (SD = 0.91). Finally, when students had intrinsic motivations and focused on HOCs, the mean confidence increase was 1.132 (SD = 1.04). These values suggest that focusing on HOCs within a session is related to a greater increase in confidence, regardless of motivations for utilizing the writing center. Figure 5 graphically illustrates each of these values.
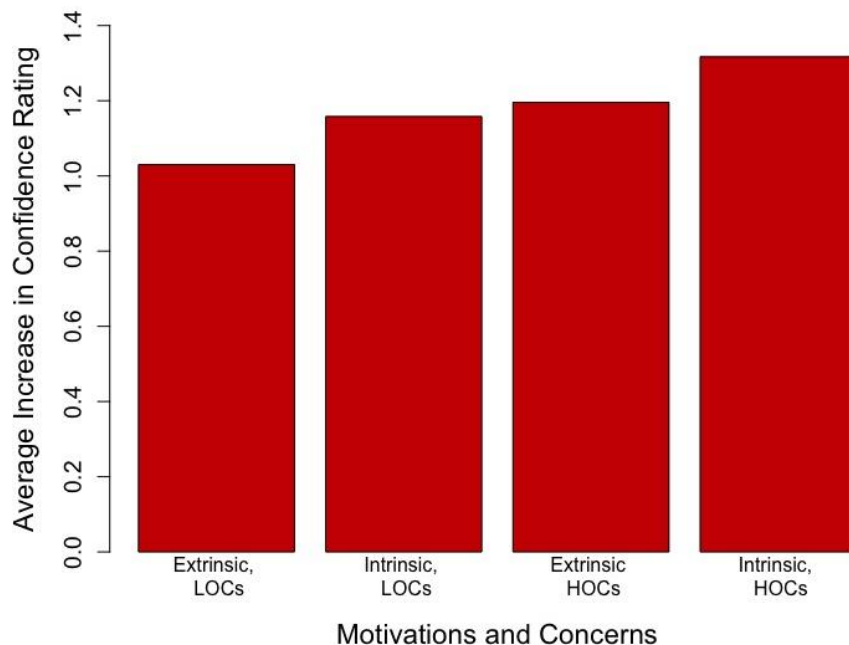

Figure 5. Mean change in confidence ratings based on motivations and concerns

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3.5.2 international student interactions

The final subject of analysis focused upon a specific demographic characteristic of the participants: their status as international students. Overall, for all participants, the mean change in confidence ratings was 1.14 (SD = 0.89). For international students, the mean change in confidence ratings was only 1.02 (SD = 0.97). Repeating the above analysis for only international students who participated in the study revealed a different outcome. International students who had extrinsic motivations and focused on HOCs experienced an average confidence increase of 0.83 (SD = 1.00). International students with extrinsic motivations and focused on LOCs had an average confidence increase of 1.03 (SD = 0.96). International students with intrinsic motivations and focused on LOCs had an average confidence increase of 1.33 (SD = 1.03). Finally, international students who had intrinsic motivations and focused on HOCs had an average confidence increase of 1.50 (SD = 0.55). These values demonstrate that for international students, motivations for using the writing center – rather than the concerns addressed in a session – are more important concerning communication confidence increases. Additionally, this interaction is much more pronounced for international students than it is for the overall sample, as presented in Figure 6.
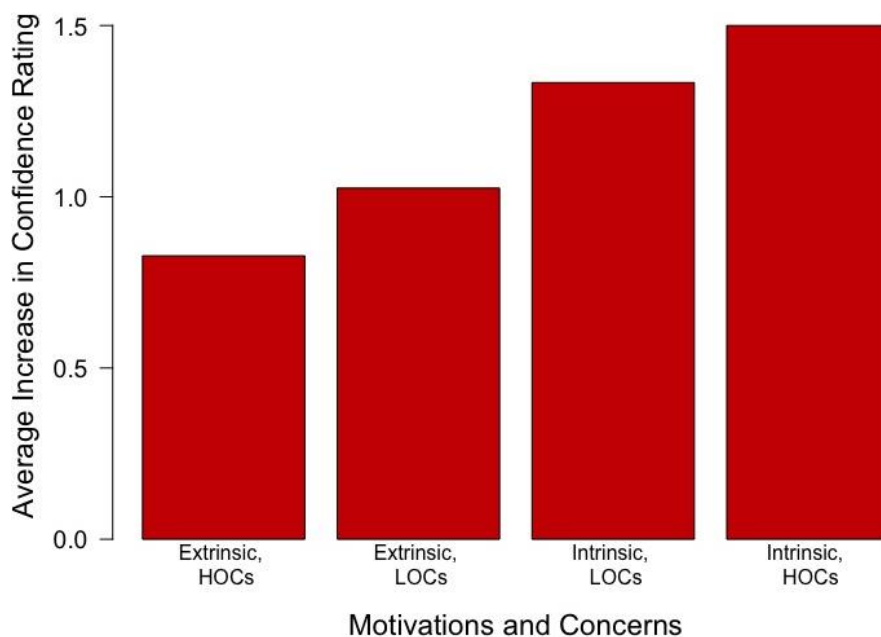

Figure 6. Mean change in international students' confidence ratings based on motivations and concerns

4. Discussion

4.1 Discussion and Implications

The findings of this study illuminated several relationships that underlie the role that writing centers have in increasing their users' communication confidence. Overall, the before- and after-confidence values indicate that using writing centers such as the WMC is related to a significant increase in individuals' confidence ratings. As shown in Figure 1 above, 76% of sessions led to an increase in the participant's communication confidence. Furthermore, 99% of students who utilized the WMC had confidence ratings that stayed the same or improved after their appointments. Relating this finding to previous work, this increase in communication confidence is likely also related to an increase in communication competence and a decrease in writing anxiety[10]. This relationship serves to support the mission of writing centers and validate their place on the university campus.

   The next finding – that intrinsic motivations are related to a greater confidence increase than extrinsic motivations – also has a noteworthy significance for the function of writing centers. Writing center employees and professors alike can confirm that many students utilize the service in pursuit of fulfilling a course requirement. Professors will

commonly require their students to visit the WMC at least one time during the semester. While this is done with good intentions – helping students become better communicators and exposing them to the university's services – it may lessen the impact that a visit to the writing center can have. Allowing students to utilize writing centers out of an intrinsic desire to learn and improve – rather than to improve their grades or get another extrinsic reward – is related to a greater benefit. Due to this, instructors should encourage students to take advantage of the services provided by the WMC and allow them to freely choose to utilize the writing center, rather than requiring it as a part of the course.

Another problem faced by writing centers across university campuses is how they are viewed by staff, faculty, and students. Many individuals hold an incorrect assumption that writing centers are a remediation service. That is, that writing centers are believed to only be helpful for those who are already struggling. In reality, writing centers aid individuals from all skill levels and at all points in the writing process. However, if writing centers are viewed solely as a last-minute amenity to help with lower-level concerns, the entire student body cannot fully appreciate the services provided. Writing centers have long strived to move away from this "remediation service" brand; the findings of this study help validate this mission. As shown in Figure 3, students benefit more when they focus on higher-order concerns like theses, purpose, and organization, than when they fret over lower-order concerns like grammar. Thus, if students utilize the writing center to learn about these higher-order concepts rather than stressing over lower-level remediation, they would likely benefit more.

Finally, the findings on the interactions of motivations and concerns – and how this relationship changes for different populations – have important implications for the functioning of writing centers. It is important to remember that, regardless of what data reveals, writing centers are first and foremost a person-centered service. No person is entirely predictable – individual differences are limitlessly present. The trends that exist for one population are not necessarily applicable to another, and even within a population there are extant differences. Nevertheless, these findings can be used to encourage students to pursue a particular path. International students who are especially unconfident may benefit from being told they could improve their communication confidence through intrinsic motivations. A native English-speaking student that is extrinsically motivated could be encouraged to focus on higher-order concerns to increase their confidence further. Rather than serving as a mandatory, all-inclusive path to high communication confidence, these findings should instead act as a guide to what *may* benefit each individual.

Overall, as previously mentioned, the confidence measures in this study were overwhelmingly positive. While some variables led to a *greater* increase than others, it is essential to remember that nearly all of the students who took part in this study benefitted from utilizing the writing center.

4.2 Limitations and Future Research

There are several possible limitations to this study. First, students were able to choose to participate in this study. It is possible that those who chose to participate had different characteristics than those who did not. For example, perhaps only those who had a positive experience at the WMC wanted to participate in the study, while those who had a negative or neutral experience chose not to participate. Secondly, the population from which the study sample was drawn was limited – only those who used the WMC were included. Again, there may be differences between the populations. For example, those who self-selected to utilize the WMC could have been more receptive to receiving assistance, and thus experienced a greater confidence increase than what would have been experienced by those who did not utilize the WMC. Similarly, perhaps those who did not use the service already had a high level of communication confidence, and they would not have experienced significant benefits from using the service. One final limitation of this study is that it was correlational. This means that the findings cannot be used as evidence of causation – they can only hint at the relationships that exist been variables.

Future research in this area could focus on additional variables that may impact the effectiveness of writing centers. These variables could relate to the type of project a student is working upon, additional psychological characteristics such as those included in this study, or other demographic characteristics of the participants. With time, further research could develop a comprehensive model to both predict and explain the benefits that students obtain by utilizing writing center services.

5. Conclusion

In conclusion, this study examined the variables related to how confident students are in their communication abilities and the role that writing centers can play in fostering this confidence. The variables of interest were motivations for utilizing the writing center (intrinsic or extrinsic), concerns addressed during a session (higher-order or lower-order

concerns), and the stage of the writing process during which the session occurred (planning, drafting, editing, or polishing). Through statistical and graphical analyses, several relationships were uncovered. First, writing centers can significantly – and positively – impact the students they serve. Second, students with intrinsic motivations for utilizing the writing center, on average, experienced a greater increase in confidence than those with extrinsic motivations. Third, students who focused on higher-order concerns reported a larger average increase in communication confidence than those who focused on lower-order concerns. Finally, concerns, motivations, and demographics interact in complex ways, whereas students overall benefitted more from focusing on HOCs, but international students specifically seemed to benefit more from having intrinsic motivations. More research is needed to identify additional variables that influence communication confidence and the role of writing centers. Nonetheless, writing centers remain an essential service to students, with the ability to positively impact the academic community.

6. Acknowledgments

7. References

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