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Identifying Variables that Predict Community College Students' Level of Self-Efficacy in Writing

Cristina M. Savarese

Suffolk County Community College USA

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Abstract: *Self-efficacy in writing is increasingly studied among undergraduates; however, less is specifically known about the variables that are associated with community college students' confidence in their capacity to succeed on writing assignments. In this study, 434 community college students who have completed at least one semester of a freshman composition course were surveyed on their level of self-efficacy in writing, as well as on several demographic and academic variables. Linear regression revealed that students' freshman composition course grade and college GPA were significant predictors. Results have implications for how undergraduate writing instruction can be designed to positively shape students' self-concept as academic writers, which may ultimately help support their continued enrollment in a degree program.*

Key Words: Self-efficacy, writing, first-year composition, community college, higher education

INTRODUCTION

Students' essays are more than just words on a page; they are also the products of years of judgements students have received about their writing. By the time a student arrives in a freshman composition class as an undergraduate, they have experienced both praise and criticism for dozens of writing assignments over many years, and whether students can rise to the expectations of college-level writing may well hinge on how they have internalized these experiences (Ekholm et. al, 2015; Perin et al., 2016). In one of his many writings about human agency and its causes, Bandura (1999) claims that "[u]nless people believe that they can produce desired effects by their actions they have little incentive to act or to persevere in the face of difficulties" (p. 28). The power of this belief, also known an individual's level of self-efficacy, has become increasingly evident to me as a teacher of composition: how my students' feel about their writing abilities may be nearly as important as their abilities themselves. Consequently, the experience of teaching writing to undergraduates has often been a paradox: most students know they need help, but, at the same time, many also may not believe they can be helped. I want my students to earn high marks on

Correspondence concerning this article should be addressed to Cristina M. Savarese, E-mail: savarec@sunysuffolk.edu.

their writing assignments, but I also feel a responsibility to tackle the larger issue of understanding their innate beliefs in their capacity to become successful writers, or their level of self-efficacy in writing.

The need for such inquiry is especially acute at the community college level, where I teach, and where rates of student persistence (a student's ability to maintain matriculated in a degree program) and institutional retention (the institution's ability to keep students matriculated) are lower than at public, four-year institutions (Hagedorn, 2006). According to the National Student Clearinghouse Research Center (2021), 59% of students who started at two-year public colleges in fall 2019 persisted to fall 2020, compared to 84% of students who started at four-year public institutions ("Persistence & Retention – 2021"). The reasons why so many community college students do not persist are varied, and they have only been further compounded by the effects of the COVID-19 pandemic, which has disproportionately impacted students in demographic groups more likely to attend community colleges than four-year schools (Belfield & Brock, 2020). According to the most recent survey data, 83% of students attending community colleges are considered *nontraditional* (compared to 54% of students attending public, four-year colleges and universities), as defined by the U.S. Department of Education, meaning they have either delayed enrollment into college, attend part-time, live independently from their parents, have dependents, work full-time, are single parents, and/or possess a GED or high school equivalent diploma (Radford et al., 2015). As nontraditional students generally face greater challenges to their education than traditional students do, they often require greater levels of support to maintain their enrollment. This may include an active awareness on the part of English faculty of students' level of self-efficacy in writing, which, the following research suggests, is a significant factor in students' ability to complete required composition courses.

Review of Relevant Literature

The connection between self-efficacy and academic achievement has been confirmed by Prat-Sala and Redford (2010), who found that undergraduate students who demonstrated high levels of self-efficacy in writing were more likely to apply purposeful, focused approaches to completing reading and writing assignments. Self-efficacy and writing achievement have also been found to be significantly correlated in subsequent studies by Sahril and Sukardi (2018) and Frey and Vallade (2018). Further, researchers have identified positive relationships between self-efficacy in writing and academic achievement alongside additional factors, including *locus of control* and *audience orientation*, that may be significant predictors of writing performance (Jones, 2008; Sanders-Reio et al., 2014).

Despite these associations between self-efficacy and achievement, results from research that examines the instructional environment and its relation to students' self-efficacy paint a more complex picture. For example, feedback and assessment are two variables researchers frequently study in connection to students' beliefs and attitudes about writing. In the case of feedback, students appear to be more deeply affected by the opinions of their teachers than of their classmates. This difference was identified by Ruegg (2018), who found levels of self-efficacy in writing among undergraduates enrolled in a second-year composition course to be significantly, positively related to instructor feedback, as opposed to peer feedback. Additionally, instructor feedback may be more consequential to students who are less confident writers, according to results from a study by Mitchell et. al (2019) which revealed that students with low self-efficacy in writing sought more writing help from their instructors but reported that the feedback from these

sources continued to make them feel negatively about their writing capabilities. However, self-efficacy among students may be improved with a more personalized classroom experience, as demonstrated in a study by Camfield (2016) who found that undergraduate students' attitudes about writing became more positive as they developed meaningful relationships with their writing instructors.

Corresponding to findings that associate these external instructional variables with self-efficacy, researchers have also investigated how students' self-efficacy in writing is related to their innate response to writing assignments, specifically the level of anxiety they experience when faced with a writing task. To understand variables that correlate with undergraduate students' writing anxiety, Martinez et al. (2011) surveyed students on their level of self-efficacy in writing, writing anxiety, and the amount of leisure writing in which they engage. Results showed that both leisure writing and writing anxiety significantly predict self-efficacy in writing, demonstrating that whether an individual regards writing as something enjoyable, and not stressful, may play a role in how they view themselves as a writer. Similarly, a case study by Eckstein et. al (2021) revealed that the self-efficacy in writing of first-year composition students was negatively affected by their levels of anxiety and writing apprehension. Writing apprehension has also found to be significantly, negatively correlated to self-efficacy in writing (Pajares & Johnson, 1994). Researchers have found that students who have developed an awareness and understanding of their own writing process may experience lower levels of writing anxiety and increased self-efficacy in writing (Sachar, 2020; Stewart et. al, 2015).

Beyond an understanding of students' preexisting emotional reactions to writing tasks, research findings further suggest that the act of completing writing-intensive courses may also increase students' self-efficacy in writing, particularly if those students are enrolled in academic and technical degree programs that do not traditionally include many composition requirements (Fischer & Meyers, 2017). To further support students' self-efficacy in composition courses, researchers believe the curriculum should specifically expose students to all areas of the writing process (Chae, 2013) and be designed in such a way that creates a supportive writing environment and fosters students' positive beliefs about writing (Abdel Latif, 2019).

DEVELOPMENT OF SELF-EFFICACY IN WRITING MEASURES

Self-efficacy itself is a trait that can vary widely, even within a general task, such as "academic achievement," where an individual may have greater levels of self-efficacy in one subject than another (Bandura, 2006, pg. 326). Accordingly, the area of writing contains a range of domain-specific self-efficacies that students can possess. Beginning in the mid-1980s, researchers have developed a series of scales to measure such perceived self-efficacies. Earlier scales mainly evaluate student self-efficacy related to mechanical writing skills. The Self-Assessment of Writing measure by McCarthy et al. (1985), for example, asks students if, and with what degree of certainty, students can demonstrate a particular writing skill after viewing correct and incorrect examples. Shell et al. (1989) developed a writing self-efficacy instrument containing subscales for students to evaluate their confidence in completing different types of writing tasks as well as in their knowledge of various writing elements. Similarly, Pajares and Valiante's Writing Skills Self-Efficacy Scale (1999) consists of items related to composition, grammar, usage, and mechanics. Later scales place greater emphasis on self-regulation and motivation as they relate to the writing process, building on the Writing Self-Regulatory Efficacy Scale developed by Zimmerman and Bandura (1994), which measures students' beliefs in their ability to carry-out the writing process, develop engaging writing, and self-motivate to complete a writing

task. Likewise, Piazza and Siebert's Writing Disposition Scale (2008) measures degrees of confidence, persistence and passion related to writing tasks. The Self Efficacy for Writing Scale, developed by Bruning et al. (2013), measures self-efficacy in writing ideation (thought-process), conventions (including grammar, sentence structure, and organization), in addition to self-regulation (the student's ability to begin and complete a writing task). The Writing Beliefs Inventory (White & Bruning, 2005) measures whether the individual views writing as a process that is either *transactional* (one that reflects a high level of cognitive engagement) or *transmissional* (one that reflects a superficial reproduction of knowledge).

Post-secondary writerly self-efficacy scale (PSWSES)

This scale was developed by Schmidt and Alexander (2012) in response to the need for undergraduate writing centers to quantitatively assess students' self-efficacy in writing over repeated visits. While most college tutoring assessment uses student achievement, such as GPA (Bredtmann et al., 2013; Cooper, 2010; Fauria & Fuller, 2015; Rheinheimer et al., 2010; Walvoord & Pleitz, 2016;) and persistence (Bell & Frost, 2012; Coladarci et al., 2013; Rheinheimer et al., 2010; Vick et al., 2015) to measure program effectiveness, the aim of the PSWSES is to understand students' progress based on their evolving attitudes about writing. The scale comprises five features of writerly progress, (reading and responding like a writer, ability to synthesize research, awareness of strengths and weaknesses as a writer, writing self-regulation, and response to expert modeling) in addition to items derived from the four sources of self-efficacy, as outlined by Bandura (2006). Because specific writing skills may vary depending on the writing assignment, researchers designed the PSWSES to emphasize "self-efficacy beliefs related to writing than on confidence in writing skills" (Schmidt & Alexander, 2012, pg. 3). The researchers validated the scale using 505 students at a four-year university who participated in writing center services at least three times over 10 weeks. Additionally, writing center tutors completed a corresponding self-efficacy scale on behalf of 180 of those participants, and 39 students who did not use the writing center served as a control group. Students participating in at least three writing center visits demonstrated a significant increase in self-efficacy than students in the control group.

PROBLEM STATEMENT AND RATIONALE

Research to understand self-efficacy in writing among undergraduates has examined the relationships between the emotional, instructional, and self-regulatory behaviors that are associated with students' beliefs in their abilities to succeed as writers. Self-efficacy in writing measurement scales have been developed to examine specific writing domains, including mechanics, process, and writing confidence. Less understood, however, is an examination of the specific academic and demographic variables that are related to an individual's level of self-efficacy in writing, particularly among students attending community colleges (Ryan, 2020). What follows is a quantitative research study undertaken to identify the factors that predict self-efficacy in writing among community college students. Results from this study can inform faculty and administration of how students perceive their own writing skills, providing insights that can foster academic success.

METHOD

PARTICIPANTS

I surveyed students attending a suburban community college in the mid-Atlantic region of the Northeastern United States. At the time of the study, total college enrollment was approximately 23,000 students. Participants were selected from one of the college's three main campuses, which had a student enrollment of approximately 8,000, with two-thirds considered part-time. The two most popular degree programs among students are Associate in Arts (A.A.) from the program in Liberal Arts and Sciences – General Studies Emphasis, followed by an Associate in Applied Science (A.A.S.) in Nursing. See Table 1 for demographic information of the campus population.

Table 1
Demographics of Student Population

Student Characteristic		Percentage of Campus Population
Age	24 and younger	74.0
	25 and older	26.0
Gender	Female	56.0
	Male	54.0
Race/ Ethnicity	Asian or Pacific Islander	4.0
	Black or African American	12.0
	Hispanic/Latino	27.0
	Unknown	22.0
	White, non-Hispanic	37.0

Participants were enrolled in a second-semester English course, Introduction to Literature (ENG 102). The course is required by nearly all degree programs at the college, thereby ensuring students from a variety of academic disciplines would be represented in the sample. Additionally, because a freshman composition course is the pre-requisite for ENG 102, virtually all participants in the sample would have at least one full-semester's worth of experience writing as an undergraduate.

VARIABLES

SELF-EFFICACY IN WRITING (SEW)

The instrument used to measure self-efficacy in writing was the Post-Secondary Writerly Self-Efficacy Scale (PSWSES), which evaluates 20 items of self-efficacy in three separate areas of writing: local and global writing process knowledge (e.g., "I can find and correct my grammatical errors"), physical reaction (e.g., "I can write a paper without feeling overwhelming feelings of fear or distress"), and time/effort (e.g., "When I have a pressing deadline for a paper, I can manage my time efficiently"). The scale's psychometric characteristics were evaluated using components analysis with varimax rotation and Kaiser normalization, revealing the 20 items

loaded onto three factors that explained 56% of the variance in scores. The published Cronbach's Alpha for the scale was .931. The authors determined construct validity by correlating students' writerly self-efficacy ratings to those of their writing tutors. I modified the scale slightly for this study by asking participants to rate each item on a Likert scale from 1 (never) to 6 (always), for a possible total score range of 20 – 120. Cut-off scores were created based on quartiles to indicate the participant's level of self-efficacy in writing. The complete scale used for this study can be found in the Appendix.

CO-VARIATES

Along with self-reporting their gender identity, age, race/ethnicity, and degree program, I surveyed participants on the grade they earned in their freshman composition course (either ENG 100 or ENG 101), their college GPA, if they have used the college's writing center, and whether they have taken remedial and/or ESL coursework while they have been enrolled at the college. Additionally, participants indicated whether they were considered nontraditional and/or first-generation college students, according to criteria set forth by the National Center for Education Statistics (Cataldi et al., 2018).

DATA COLLECTION AND ANALYSIS

Participants in 18 sections of ENG 102 were surveyed in-person over a two-week period in the beginning of the spring 2020 semester. I, or a faculty member not affiliated with the course section, began distributing the surveys 5-10 minutes prior to the start of each class. Participants in two remote sections of ENG 102 were surveyed online using Qualtrics during the same period. Data for this study were obtained as part of a larger research project investigating student writing center use (Savarese, 2021). All participants signed a statement of informed consent and were notified that taking part in the study was voluntary, confidential, and would not impact their course grade. Of a possible 579 participants, 434 students returned surveys. Once data were collected, variables were entered into SPSS version 26 for analysis, with significance for all results set at the $p <$. 05 level. To answer the research question, I used multiple linear regression to determine the independent variables that significantly predicted the students' self-efficacy in writing scores.

RESULTS

PSYCHOMETRIC CHARACTERISTICS OF PSWSES

To begin my analysis, I conducted a principal-axis factoring (PAF) with varimax rotation and Kaiser normalization to determine the extent to which components of the PSWSES administered in this study matched those produced by Schmidt and Alexander (2012). Bartlett's test of sphericity was significant ($\chi 2$ (190) = 3782.66, $p < .01$), indicating that it was appropriate to use the factor analytic model on this set of data. The Kaiser-Meyer-Olkin measure of sampling adequacy indicated that the strength of relationship among variables was high (KMO = .94), which exceeded the level of .50 generally deemed adequate for factor analysis. The minimum loading of each factor was set at .40. The analysis revealed three factors with an eigenvalue greater than one. These three factors, which explained 56.37% of the variance, are identified by the scale's authors as local and global process knowledge, time/effort, and physical reaction. In this analysis, all items did not fall neatly into the three subscales originally reported by Schmidt and Alexander. Therefore, I created two-letter codes and inserted them next to each item in Table 2 to indicate which subscale the item was attributed to in the original development and evaluation of the

measure. In this study, a Cronbach's Alpha of .93 was revealed, a high value indicating strong internal consistency reliability. The results of the PAF may be found in Table 2.

Table 2
PSWSES Principal-Axis Factoring: Items and Loadings

Item	Subscale	1	2	3
1	WK	.76		
5	WK	.70		
6	WK	.68		
18	WK	.68		
9	WK	.65		
7	WK	.63		
4	WK	.62		
15	PR	.58		
16	WK	.58		
3	WK	.51		
11	WK	.49		
20	TE		.73	
19	TE		.67	
2	TE		.57	
13	PR		.54	
12	WK		.51	
8	PR			.78
14	PR			.77
10	PR			.60
17	PR			.59

Notes: WK = Local and Global Writing Process Knowledge, TE = Time/Effort, PR = Physical Reaction

DESCRIPTIVE STATISTICS

Participants in this study mostly identified as female (59%), Hispanic/Latino (43.6%), nontraditional (53.6%), and enrolled in an Associate of Arts (A.A.) program (64%). Of participants who reported their age (n = 406), the average was 20.6 years. College GPA was reported by 342 participants, and the average GPA was 3.19. See Table 3 for a more detailed description of participants by variable.

Table 3
Descriptive Statistics of Study Sample

Variables		%	N
Student Type	Tradititional	46.4	199
	Nontraditional	53.6	228
First Gen. Student	No	46.8	202
	Yes	53.2	230
Remedial Coursework	No Remedial Courses	73.5	317
	Some Remedial Courses	26.5	114
ESL Coursework	No ESL Courses	96.5	418
	Some ESL Courses	3.5	15
Degree Type	AS/AAS	36.2	156
	AA	63.8	275
ENG100 or ENG101 Grade	A	39.0	166
	B+/B	43.6	189
	C+/C	13.4	57
	D+/D	3.1	13
Writing Center Use	No	73.5	318
	Yes	26.5	115
Gender	Male	39.8	172
	Female	59.3	259
	Other	0.2	1
	Prefer Not to Answer	0.7	3
Race/ Ethnicity	Asian or Pacific Islander	2.8	12
	Black or African American	10.9	47
	Hispanic/Latino	43.6	189
	Other/prefer not to respond	3.7	16
	White, non-Hispanic	39.0	169

CORRELATIONS

I constructed a correlation matrix to explore relationships between variables. Among other significant relationships, SEW score was significantly correlated to GPA ($r = .28$, $p < .01$), ENG100 or ENG101 grade ($r = .32$, $p < .01$), and first-generation student status ($r = .13$, $p < .05$). See Table 4 for the correlation matrix.

Table 4
Correlation Matrix

Variables	1	2	3	4	5	6	7
1. Writing Center Use							
2. SEW Score	-.08						
3. Age	.17**	-.05					
4. GPA	.02	.28**	.05				
5. ENG100 or ENG101 Grade	-.04	.32**	.01	.48**			
6. Remedial Coursework	.11	-.10	-.01	.03	-.04		
7. Nontraditional Characteristics	.09	-.87	.66**	.01	.01	.07	
8. First-Gen. Student Status	-.90	.13*	.11*	-.20	.07	-.07	-.22**

*p < .05
**p < .01

PSWSES MEANS AND STANDARD DEVIATIONS

All 20 items of the PSWSES were completed by 395 participants. The highest mean scores were achieved by participants who received an A in their freshman composition course (M = 89.89, SD = 15.01) and participants who were not identified as first-generation college students (M = 86.91, SD = 15.88). The lowest means scores came from participants who earned a C+/C in their freshman composition course (M = 72.14, SD = 14.54) and participants who earned a D/D+ (76.45, SD = 16.18). The means and standard deviations of the participants' scores on the PSWSES for various independent variables may be found in Table 5.

PSWSES CUTOFF SCORES

Quartiles were calculated to determine cut-off scores for participants who completed the PSWSES. The minimum possible score on the PSWSES was 20 and the maximum score was 120. Quartiles were created by dividing the participant scores into four equal groups based on the overall median score. The first quartile (Q_1) includes the first 25% of scores. The second quartile (Q_2) includes the next lowest 25% of scores (up to the median). The third quartile (Q_3) includes the second highest 25% of scores. The fourth quartile (Q_4) includes the highest 25% of scores. There were 102 participants who scored in the first quartile, demonstrating below-average SEW, and 93 participants who scored in the fourth quartile, demonstrating above-average SEW. There were 200 participants who scored within the second and third quartiles, demonstrating average SEW. Table 6 presents a summary of the distribution of SEW scores by quartile and illustrates the even distribution of participant scores.

Table 5
Means and Standard Deviations on SEW for All Variables, by Group

Covariates and DVs		Mean	Standard Deviation	N
Student Type	Tradititional	85.66	15.68	175
	Nontraditional	84.44	16.61	218
First Gen. Student	No	86.91	15.88	211
	Yes	82.74	16.30	183
Remedial Coursework	Some Remedial Courses	82.76	16.76	102
	No Remedial Courses	85.72	15.93	292
ESL Coursework	Some ESL Courses	79.92	16.26	13
	No ESL Courses	85.15	16.16	382
Degree Type	AS/AAS	85.03	17.56	145
	AA	84.96	15.29	248
ENG100 or ENG101 Grade	A	89.89	15.01	154
	B+/B	85.21	15.52	174
	C+/C	72.14	14.54	50
	D+/D	76.45	16.18	11
Gender	Male	84.92	15.72	156
	Female	85.00	16.47	234
	Other	106.0		1
	Prefer Not to Answer	78.67	21.20	3
Writing Center Use	Have Used	82.55	15.93	106
	Have Not Used	85.88	16.19	289

Table 6
Summary of the Distribution of SEW Scores by Quartile

Quartile	Q_1	Q_2	Q_3	Q_4
Score Range	20-74	75-86	87-97	98-120
N	102	104	96	93

DIFFERENCES BETWEEN MEANS

I ran a one-way ANOVA to determine whether there were significant differences between participants on their SEW score. Significant differences were revealed between ENG100 or ENG101 grades and SEW score, $F(3, 385) = 18.37$, $p < .01$. See Table 7 for results of the ANOVA.

Table 7

One-Way ANOVA Comparing ENG100 or ENG101 Course Grade on SEW

	Sum of Squares	Df	Mean Square	F	p
Between Groups	12754.63	3	4251.54	18.37	.000
Within Groups	89124.42	385	231.49		
Total	101879.05	388			

Based on the results of the ANOVA, I was curious to further understand which freshman composition grades, specifically, contributed to the significant differences on SEW scores. Therefore, I conducted a post hoc analysis, using the Bonferroni post hoc criterion for significance. The post hoc analysis revealed that SEW was significantly higher for participants who earned an A in their freshman composition course than for those who earned a B+/B ($p < .05$), C+/C ($p < .01$), or D+/D ($p < .01$). SEW was also significantly greater among participants who earned a B+/B than for those who earned a C+/C ($p < .01$). See Table 8 for results of the post hoc analysis.

Table 8

Bonferroni Post Hoc Test for Multiple Comparisons between the Groups in ENG100 or ENG101 Grade on SEW Score

Group (I)	Group (J)	Mean Difference (I-J)	S.E.	Sig.	95% C.I.	
					Lower	Upper
A	B+/B	4.68*	1.68	.034	0.22	9.15
	C+/C	17.75**	2.48	.000	11.18	24.32
	D+/D	13.44*	4.75	.029	0.84	26.03
B+/B	A	-4.68*	1.68	.034	-9.15	-0.22
	C+/C	13.07**	2.44	.000	6.59	19.54
	D+/D	8.75	4.73	.390	-3.79	21.30
C+/C	A	-17.75**	2.48	.000	-24.32	-11.18
	B+/B	-13.07**	2.44	.000	-19.54	-6.59
	D+/D	-4.31	5.07	1.000	-17.75	9.12
D+/D	A	-13.44**	4.75	.029	-26.03	-0.84
	B+/B	-8.75	4.73	.390	-21.30	3.79
	C+/C	4.31	5.07	1.000	-9.12	17.75

*p < .05
**p < .01

RESEARCH QUESTION

To answer my research question regarding the factors that most predict a community college student's level of self-efficacy in writing, I used regression to determine the strength of the relationship between the dependent variable (students' level of SEW) to the various independent variables collected through the survey. Because SEW score is a continuous variable (consisting of a range of values), a linear regression was conducted. The preliminary analysis fit a model including ENG100 or ENG101 grade, remedial coursework, nontraditional characteristics, GPA,

and age as predictor variables and SEW score as the dependent variable. Predictor variables were selected based on the strength of their correlational relationship to the dependent variable and/or an overall absence of research investigating their relationship to self-efficacy in writing. In this analysis, a total of 293 cases were analyzed. ENG100 or ENG101 grade and GPA emerged as significant predictors of a participant's SEW score: $F(5, 287) = 9.37$, $p < .01$. This model explains 12.50% of the variance in SEW scores (adjusted $R^2 = .125$). See Table 9 for results of the initial regression model.

Table 9

Preliminary Linear Regression to Determine the Variables that Predict SEW Score

Variable	B	SEB	β	p
ENG100 or ENG101 Grade	5.73	1.26	.28	.000
GPA	3.52	1.63	.13	.031
Remedial Coursework	-2.49	1.97	-.07	.207
Nontraditional Characteristics	-0.58	0.77	-.054	.452
Age	-0.01	0.21	-.004	.951

I conducted a second analysis with the non-significant variables from the preliminary analysis removed. In this analysis, only ENG100 or ENG101 grade and GPA were entered as predictor variables. Based on this second analysis, a total of 315 cases were analyzed. A significant model emerged: $F(2, 312) = 22.07$, $p < .01$. The model explains 11.8% of the variance in SEW scores (adjusted $R^2 = .118$), indicating that 88.2% of student SEW is explained by a factor other than their freshman composition course grade or GPA. Table 10 provides the regression coefficients for the predictor variables entered in the model and shows that ENG100 or ENG101 grade and GPA are significant predictors, with a positive relationship to SEW score.

Table 10

Second Linear Regression to Determine the Variables that Predict SEW Score

Variable	B	SEB	β	p
ENG100 or ENG101 Grade	4.99	1.24	.239	.000
GPA	4.53	.172	.172	.004

In summary, using a linear regression allowed me to identify two variables that were significant predictors of students' SEW scores: freshman composition course grade and college GPA. Both variables indicated a positive relationship (the higher students' grades in ENG100 or

ENG101 were, the more likely they were to have above-average SEW, and as students' GPAs increased, their SEW scores increased).

DISCUSSION

The significant relationship between students' freshman composition course grade and their level of self-efficacy in writing emphasizes the important role that freshman composition courses play in shaping students' writing behaviors and self-concept. In this study, as the students' reported marks in their freshman composition courses increased, so, too, did their scores on the PSWSES. Coinciding with this finding were significant differences that I found between grade categories in freshman composition courses on self-efficacy in writing mean scores. A post-hoc analysis revealed that the greatest differences were between the self-efficacy in writing scores of students who earned an A in the course and the comparative self-efficacy in writing scores of students who received all other grades. This result may be explained by the possibility that many students perceive the freshman composition course as one that is rigorous, and that achieving an A from their instructor is a true representation of an outstanding writing ability and a meaningful accomplishment. This result corresponds to other research findings confirming a significant relationship between instructors' judgments and their students' self-efficacy (Abdel Latif, 2019; Callinan et al., 2018; Camfield, 2016; Ruegg, 2018; Sachar, 2020). The finding about self-efficacy in writing as predicted by course grades and overall GPA is also supported by statistically significant findings of researchers who examined the relationship between students' achievement in writing and their self-efficacy (Martinez et al., 2011; Vanhille et al., 2017). Additionally, the specific role of GPA as a predictor variable for self-efficacy in writing aligns with a similar result published by Warden and Myers (2017) who discovered a strong correlation between self-efficacy and GPA.

The study's finding of non-traditional student status, writing center use, age, remedial coursework, and first-generation college student status as non-significant variables appears to be in line with an overall lack of research findings significantly connecting them to self-efficacy in writing.

LIMITATIONS

The main threat to validity in this study is the use of self-reported survey data. For example, participants may have provided inaccurate or untruthful responses regarding their academic history, writing center use, or remedial coursework. In fact, it is not unusual for students to simply not remember their recent course grades, a phenomenon that has been described by Morrison and Nadeau (2003). Additionally, to complete the survey more quickly, participants may have engaged in satisficing by circling Likert values on the PSWSES without taking time to thoughtfully deliberate on each choice, a common limitation of survey research (Vriesema & Gehlbach, 2021). Beyond these methodological challenges, a further limitation of this study rests in its results, which identify relationships that are purely correlational, and, thereby, do not allow for causality. While results suggest that self-efficacy is related to students' composition grades and GPA, it cannot be assumed that there is a direct relationship between these variables.

IMPLICATIONS AND RECOMMENDATIONS

The results of this study strongly suggest that faculty teaching first-year writing courses play a crucial role in their students' long-term academic outcomes. Therefore, it may be helpful for composition instructors to understand that students struggling in their classes likely have lower levels of self-efficacy in writing than students who are high achievers. These results also demonstrate the consequential nature of assessing student writing and underscore the importance of fair and consistent grading practices that may also incorporate students' self-reflection (Sahril & Sukardi, 2018). For example, composition instructors might consider using rubrics when grading student work, dedicating class time to explain their assessment methods to students, and requiring students to regularly consider their own progress. It may also be advisable for faculty to administer anonymous self-efficacy in writing surveys to their students at various times during the semester to better understand students' collective feelings about their writing abilities and further compel students to reflect on their individual development. Such practices may improve the student-teacher dynamic and inform how instruction is designed and delivered.

Because the results of the study highlight the relationship between students' beliefs and attitudes about their writing skills and the feedback they receive from their composition instructors, faculty should also consider recommending writing support services to all students, such as the campus writing center. Faculty have a unique opportunity to both introduce this service to students and demystify the writing process as an oftentimes elaborate one that requires time to plan, outline, draft, and revise. Faculty may also consider citing research that supports significant, positive relationships between use of academic support services, such as writing centers, and academic achievement (Coladarci et al., 2013; Cooper, 2010; Pfrenger et al., 2017; Rheinheimer et al., 2010; Squires, 2022; Vick et al., 2015).

For writing program administrators, addressing students' self-efficacy, particularly self-efficacy in writing, may also be an important factor in developing strategies to improve academic outcomes. It is possible that instructional faculty are not familiar with the concept of self-efficacy in writing and that their assessments of their students' writing may be related to how those students perceive their ability to succeed in various academic domains. Campus administrators may consider conducting professional development for faculty about self-efficacy in writing and how it can influence students' approaches to learning.

The finding regarding college GPA as a predictor of self-efficacy in writing highlights the relationship between college-level writing and global academic achievement. Results from this study suggest that when students are successful in college, they also feel capable as writers. This result has implications for faculty in academic disciplines other than composition, who may seek to understand more about their students' attitudes towards writing as they progress through their degree programs. In addition to understanding students' self-efficacy in writing as a function of their GPA, it may be appropriate for faculty to administer discipline-specific self-efficacy measures to students, such as those that have been designed by Meza and González (2020). Finally, future research into the variables that predict a student's level of self-efficacy in writing should address the study's limitation regarding self-reported survey data. Researchers should consider replicating this type of study using institutional data that contain verifiable information about student demographics, socio-economic status, and academic history.

Conclusion

As community colleges struggle to enroll and retain students in the wake of the COVID-19 pandemic, it is more critical than ever for faculty and administration to develop new strategies to support student achievement. One is to understand how students perceive their own writing abilities and what may be related to those beliefs. My aim for this study was to identify the variables that predict the level of self-efficacy in writing among community college students who have completed at least one semester of freshman composition. Using linear regression, I discovered that students' freshman composition course grade and college GPA were significant factors. This finding underscores the inextricable link between writing and college achievement and suggests that community college students believe the grades they earn in their courses truly reflect their capabilities as academic writers. For faculty who teach required composition courses, this finding also clarifies the essential role we play in determining how students form an academic identity, and how we can work to better understand the needs of the students we teach.

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APPENDIX: POST-SECONDARY WRITERLY SELF-EFFICACY SCALE

Getting to Know Yourself as a College Writer

Ensuring your success as a college writer is our mission; therefore, we are interested in learning more about how you understand yourself as a college writer.

	Please assess your capabilities: **Never 1** **Rarely 2** **Occasionally 3** **Frequently 4** **Usually 5** **Always 6**						
1.	I can identify incomplete, or fragmented, sentences.	**1**	**2**	**3**	**4**	**5**	**6**
2.	I can invest a great deal of effort and time in writing a paper when I know the paper will earn a grade.	**1**	**2**	**3**	**4**	**5**	**6**
3.	I can describe my strengths and challenges as a writer.	**1**	**2**	**3**	**4**	**5**	**6**
4.	I can find and incorporate appropriate evidence to support important points in my papers.	**1**	**2**	**3**	**4**	**5**	**6**
5.	I can be recognized by others as a strong writer.	**1**	**2**	**3**	**4**	**5**	**6**
6.	When I read a rough draft, I can identify problems when they are present in the paper.	**1**	**2**	**3**	**4**	**5**	**6**
7.	I can maintain a sense of who my audience is when writing a paper.	**1**	**2**	**3**	**4**	**5**	**6**
8.	I can write a paper without feeling physical discomfort (e.g., headaches, stomach aches, back aches, insomnia, muscle tension, nausea, and/or crying).	**1**	**2**	**3**	**4**	**5**	**6**
9.	When I read drafts written by classmates, I can provide them with valuable feedback.	**1**	**2**	**3**	**4**	**5**	**6**

10.	When I have a pressing deadline for a paper, I can manage my time efficiently.	**1**	**2**	**3**	**4**	**5**	**6**
11.	I can attribute my success on writing projects to my writing abilities more than to luck or external forces.	**1**	**2**	**3**	**4**	**5**	**6**
12.	When a student who is similar to me receives praise and/or a good grade on a paper, I know I can write a paper worthy of praise and/or a good grade.	**1**	**2**	**3**	**4**	**5**	**6**
13.	Once I have completed a draft, I can eliminate both small and large sections that are no longer necessary.	**1**	**2**	**3**	**4**	**5**	**6**
14.	I can write a paper without experiencing overwhelming feelings of fear or distress.	**1**	**2**	**3**	**4**	**5**	**6**
15.	When writing papers for different courses (for example, Biology, English, and Philosophy classes), I can adjust my writing to meet the expectations of each discipline.	**1**	**2**	**3**	**4**	**5**	**6**
16.	I can map out the structure and main sections of an essay before writing the first draft.	**1**	**2**	**3**	**4**	**5**	**6**
17.	I can find ways to concentrate when I am writing, even when there are many distractions around me.	**1**	**2**	**3**	**4**	**5**	**6**
18.	I can find and correct my grammatical errors.	**1**	**2**	**3**	**4**	**5**	**6**
19.	I can find and use resources that help me with my writing.	**1**	**2**	**3**	**4**	**5**	**6**
20.	When I work with a writing instructor, I can learn new strategies which promote my development as a writer.	**1**	**2**	**3**	**4**	**5**	**6**