Project 3: Development of a Self-efficacy for Writing Scale

Sara Mills

George Mason University

PSYC 557

May 4, 2010

**Table of Contents**

 Page

Executive Summary . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5

Background and Purpose . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 6

Methods . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12

Results . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 13

Discussion . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 14 References . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 17

**List of Tables**

 Page

Table 1. Descriptive Statistics and Item-total Correlations for the 16-item Self-efficacy for Writing Scale . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 20

Table 2. Factor Loadings for Exploratory Factor Analysis of 16-item Self-efficacy for Writing Scale . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 22

Table 3. Descriptive Statistics and Item-total Correlations for the Self-efficacy for Writing Scale with Items Deleted. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 24

Table 4. Factor Loadings for Exploratory Factor Analysis of the Self-efficacy for Writing Scale with Items Deleted . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . .26

**Appendices**

 Page

Appendix A: Self-efficacy for Writing Scale . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 28

Appendix B: Revised Self-efficacy for Writing Scale . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 30

**Executive Summary**

As the need for of research in academic strategies for students with emotional and behavioral disorders (EBD) accelerates as a result of No Child Left Behind, researchers need tools that effectively measure learning processes for this population of students. Self-efficacy is a critical focus of instruction for students with EBD to increase their willingness to approach academic tasks and persist when tasks become difficult. Writing is one academic area where the need for such tools is currently needed. This study proposed a Self-efficacy for Writing Scale to measure students’ beliefs about their ability to complete the various tasks required throughout the writing process. A convenience sample of 67 adults (32.8% male, 65.7% female), with a mean age of 33.75 years (SD = 11.5) completed the measure. After analyzing the initial results, five items were dropped from the scale, resulting in a revised Self-efficacy for Writing Scale that is a reliable measure of self-efficacy for this sample (α= .90). Results of an exploratory factor analysis indicate that the construct of self-efficacy for writing for this sample is uni-dimensional. Limitations of the study and directions for future research are discussed.

**Project 3: Development of a Self-efficacy for Writing Scale**

Identifying evidence-based instructional practices for students with disabilities is a top priority in the field of special education. Not only does the No Child Left Behind Act of 2001 require that all students participate in high-stakes test in reading, writing, and math, but it also mandates that teachers use instructional strategies supported by research. For teachers of students with emotional and behavioral disorders (EBD), this is a particularly challenging requirement to meet. While there is a wealth of research focused on controlling and remediating the challenging behaviors these students present, there is very little research on academic instruction for students with EBD (Wehby, Lane, & Falk, 2003). This makes it difficult for teachers of students with EBD to provide “evidence-based” academic instruction as required by the law. There is a critical need for such research if teachers are to effectively serve their students.

Writing is one academic area with an emerging body of research on effective instruction for students with EBD (e.g., Lane et al., 2008; Mastropieri et al., 2009). Nearly all of these studies have focused on implementing the self-regulated strategy development approach to writing, which has a strong research base to support its use with students with learning disabilities (Graham & Harris, 2003), with students with or at-risk for EBD.

Self-regulated strategy development (SRSD) is an approach that combines strategy instruction with self-regulation skills to improve academic performance. SRSD was designed specifically for students with learning disabilities (LD; Zito et al., 2007). Like students with EBD, students with LD have deficits in self-regulation along with affective challenges that make writing difficult. SRSD explicitly teaches the self-regulation skills of goal setting, self-monitoring, self-instruction, self-evaluation, and self-reinforcement. It also seeks to increase student self-efficacy for the writing task.

 To be a self-regulated learner, one must be metacognitively aware of their learning processes, be motivated to learn, and possess strategic behaviors for learning (Zimmerman, 1989). Studies have shown that students who are more self-regulated are more successful (Zimmerman & Martinez-Pons, 1986). For middle-school students, in particular, maintaining motivation is the key to self-regulation. Dembo and Eaton (2000) proposed that self-regulated middle school students typically use three strategies for maintaining motivation during these critical years when academic motivation wanes: goal setting, self-talk, and rewards. Research on SRSD with students with LD has demonstrated that the self-regulation components embedded within SRSD instruction promote maintenance and generalization of writing skills (Glaser and Brunstein, 2007; Sawyer, Graham, & Harris, 1992).

 There are six proscribed stages in the SRSD for writing instructional model (Graham, Harris & Troia, 1998). The first stage, “Develop Background Knowledge,” addresses pre-skills needed to learn and apply the writing strategy and self-regulation procedures. In the second stage, “Discuss It,” students are introduced to the writing strategy and make a commitment to learn it. In “Model It,” the third stage, the teacher models the strategy while thinking aloud and students develop self-statements they can use for writing. During the fourth stage, “Memorize It,” students memorize the strategy’s mnemonic and their self-statements. “Support It,” the fifth stage, provides guided practice for students to implement the strategy and to perform self-regulatory skills such as goal setting, self-instruction, and self-monitoring. Finally, “Independent Performance” is the sixth stage of the SRSD model. At this stage, students use the writing strategy and self-regulation skills to write independently.

**Self-efficacy for Writing**

Bandura (1997) explains that as students’ skills increase, their self-efficacy for the given task also increases. Self-efficacy refers to one’s belief that he or she is able to successfully complete a task. A strong sense of self-efficacy is established through mastery experiences, vicarious experiences observing a model, verbal reinforcement, and one’s psychological and affective states. Individuals with higher self-efficacy for a given task are more likely to engage in that task and persevere when faced with difficulty. For students with a history of low writing skills, such as students with EBD and LD, improving their self-efficacy is a key goal of instruction.

Self-efficacy is very task specific. Therefore, when designing a self-efficacy measure, it is important to tie it to a particular task rather than ask broad questions about a given domain. Bandura (2006) makes several additional recommendations for constructing a self-efficacy scale: (1) Use the phrase, “can do,” rather than “will do;” (2) conceptually analyze the relevant domains of functioning; (3) include items that represent varying levels of task difficulty; and (4) use a response scale that ranges from 0 (cannot do it at all) to 100 (highly certain can do it). However, a 0 to 100 response scale can be difficult for students with disabilities to interpret and may hinder their ability to more accurately report their beliefs.

Measures of self-efficacy have been used throughout the past 25 years in SRSD research to demonstrate an increase in self-efficacy for writing as a result of instruction (Harris & Graham, 2003). However, the self-efficacy measure that is typically used in SRSD studies, which by and large focus on elementary-age students with LD, have not yielded useful information in recent studies of adolescents with EBD (e.g., Mastropieri et al., 2009; Mastropieri et al., 2010). This current measure, developed by Graham and Harris, consists of 12 items, which students rate on a Likert-type scale from 1 to 4 (1=very different from me, 2 = different from me, 3 = like me, and 4 = a lot like me). Examples of items include: “When my class is asked to write my paper is one of the best,” “I like to write outside of school,” and “I do not like to write.” This self-efficacy measure may not be appropriate for adolescents with EBD for several reasons: (a) it was designed for elementary-aged students, not adolescents; (b) it is not task-specific, as recommended by Bandura; and (c) it does not include enough points on the response scale to make it sensitive to changes in self-efficacy that occur after a relatively short period of time (e.g., after 3 months of instruction in writing).

The purpose of this project is to develop a self-efficacy for writing measure that will provide useful information about the effect of writing instruction on the self-efficacy of adolescents with mild disabilities such as EBD and LD. Such a tool will be useful as research in the area of evidence-based writing strategies increases for this population of students. To that end, a self-efficacy measure was developed and pilot tested. Results were analyzed to provide information about the internal consistency of the measure, descriptive information about the items, and item-total correlations. An exploratory factor analysis was also run to determine whether the domain measured by the instrument was uni-dimensional or multi-dimensional.

 **Development of the Self-efficacy for Writing Scale**

 The Self-efficacy for Writing Scale was developed through a multi-stage process. First, the construct of self-efficacy for writing was defined based on models of writing and a task-analysis of skills needed to produce a persuasive essay. Persuasive essays were selected as the target for this self-efficacy measure because a number of SRSD studies of writing with adolescents have focused on persuasive writing, and because this is the type of writing predominantly required of adolescents in school (as opposed to story writing). Second, possible items were generated. Next, a team of expert writing researchers reviewed the items and provided feedback about their clarity and how well they covered the domain of persuasive writing. Finally, a final self-efficacy measure was developed for pilot testing.

 **Conceptualization of self-efficacy for writing.** In their seminal work on writing, Hayes and Flowers (1980) described writing as a three-stage process of planning, translating (or drafting), and revising. Furthermore, they emphasized the meta-cognitive processes that govern the writing process. Strategy instruction in writing (e.g., self-regulated strategy development; SRSD) also takes a process approach, teaching students strategies for completing each stage of the writing process. Students with high self-efficacy, then, are conceptualized to be students who feel they are capable of effectively carrying out planning, translating, and revising tasks. Additionally, students with high self-efficacy for writing are also conceptualized to have strengths in the meta-cognitive processes that regulate the writing process, such as goal-setting, self-talk, and self-monitoring.

 As Bandura (2006) recommended, this self-efficacy scale is tied to a specific task. Instead of asking broad questions about a variety of writing tasks and situations, as the Graham and Harris self-efficacy scale did, this scale was designed to have students answer questions in response to a given writing prompt. When used as a dependent measure in writing intervention research studies, students will read the given essay prompts (two prompts are typically given, and each student can chose the one he will write about), fill out the self-efficacy scale in response to the prompt they select, and write the corresponding essays. The Self-efficacy for Writing Scale was designed with this use in mind.

 **Item generation.** Possible items for the self-efficacy scale were generated by task analyzing the three stages of the writing process and the different components that must be completed at each stage. Then, self-regulation components associated with successfully completing a writing task were analyzed, with particular attention paid to those that are deficits for students with EBD such as refocusing on work when there are distractions in the room.

After task analyzing the necessary skills for writing and self-regulation, previously published self-efficacy scales for writing were reviewed to identify possible items that could be included. These scales were located by looking at Emory University’s (January, 2010) self-efficacy website. Most of the self-efficacy scales already published focus on college-level or adult writers and were not appropriate for adolescents with disabilities.

 **Expert review.** After a list of possible items was generated, six members of a writing research team were asked to provide feedback about the items. Specifically, they were asked to identify whether they felt an item measured self-efficacy for planning, translating, revising, or self-regulating the writing task. The reviewers were also asked to indicate if an item did not appear to belong in one of these categories. After the reviewer responses were compiled, any items that reviewers did not categorize in the same way were thrown out. Four items were removed from the measure for this reason. Additionally, one item was rewritten so that there would be at least four questions for each category included in the measure.

 Next, the revised measure was given to two Masters-level students to review. Based upon their recommendations, changes were made to the response scale to make it match the wording of the questions more closely. Additionally, two questions were reworded for clarity. Feedback from the student reviewers prompted a reconceptualization of the domains contained in the scale. Specifically, items in the planning and drafting categories were combined to form a single category: content and organization. The revision and self-regulation categories remained in tact.

 **The final measure.** The Self-efficacy for Writing Scale that resulted from this development process is a 16-item scale. Eight items address content and organization, four items address revision, and four items address self-regulation. Before answering the self-efficacy questions, students are given a choice of two essay prompts and asked to select the prompt they would like to write about (i.e.,Is it better to do a staycation – vacation at home with day trips – or go away for a vacation? Or Should people your age be allowed to talk on their cell phones while driving?). Then, students rate their level of agreement with 16 statements about writing on a 5-point Likert-type scale (1 = strongly disagree, 2 = disagree, 3 = neutral or maybe, 4 = agree, 5 = strongly agree). One item on the scale asks a general question about the ability to write a persuasive essay: “I can write a good essay on this topic.” Other statements relate to planning (e.g., “I can make a good plan for this essay.”), drafting (e.g., “I can write a good introduction sentence on this topic.”), revising (e.g., “I will be able to rewrite my confusing sentences clearly.”), and self-regulation (e.g., “I will be able to manage my time effectively to finish this paper during this class period.”). A copy of the Self-efficacy for Writing Scale can be found in Appendix A.

**Methods**

**Sample**

 Snowball sampling was used to identify participants for the pilot test of the self-efficacy measure. First the survey was sent to a convenience sample of members of a Masters-level psychometrics course at a university. Then, half of the members of the class were asked to send the survey out to 20 additional people. A final sample of 67 individuals completed the self-efficacy measure. Of these 32.8% were male, and 65.7% were female (one participant did not provide information about his or her gender). Their ages ranged from 19 to 68 with a mean age of 33.75 years (SD = 11.5). Because this sample does not mirror the sample that the measure was designed for (i.e., adolescents with EBD and/or LD), results of the pilot test must be interpreted with great caution.

**Procedures**

 The Self-efficacy for Writing Scale was included as part of a larger online survey that covered such diverse topics as work ethic, health information seeking, and sleep disorders. The survey was developed using Survey Monkey (www.SurveyMonkey.com), and the link was sent to the convenience sample via email with a request to fill out the survey to assist with a class project. Individuals were given one-week to respond to the survey. Those who did not respond within four days were sent a reminder email asking them to fill out the survey. A total of 76 people responded to the survey. Of these, nine did not complete the Self-efficacy for Writing Scale and were not included in this study.

**Results**

 Before analyzing the data from the Self-efficacy for Writing Scale, responses to negatively worded items were recoded to correspond to the ratings of positively coded items. Four items were negatively coded (i.e., items 3, 6, 13, and 15). Overall, the distributions of responses to items were positively skewed, with the majoring of responses being a 4 out of 5 for each item on the scale. The only exception to this pattern was for item 15, “It will be hard for me to concentrate on my writing if there are many distractions around me.” After recoding this negatively worded item, the distribution was negatively skewed, with most respondents rating it a 2 out of 5, indicating that they would find it difficult to concentrate with many distractions. Where individual respondents had not responded to an item on the scale, the average of all responses on the scale for that individual was calculated, and that score was used to fill in the missing data. Four respondents had one of the 16 items missing. One respondent did not respond to three items on the scale.

Data from the Self-efficacy for Writing Scale were analyzed to provide information about the internal consistency of the scale, descriptive information about each item, and item-total correlations. Means and standard deviations for each item are provided on Table 1, along with item-total correlations. Cronbach’s alpha for the full scale was .84. In addition, an exploratory factor analysis was run to identify the number of dimensions measured by the scale. Results of this analysis are presented on Table 2. Based on these results, it appears that the construct of self-efficacy for writing is uni-dimensional rather than multi-dimensional, as it had been conceptualized.

Given low item-total correlations and small factor loadings on the single factor identified by the exploratory factor analysis, five items were deleted from the scale (i.e., items 5, 6, 13, 15, and 16), and analyses were rerun. With the revised scale, Cronbach’s alpha increased to .90. Results of the revised exploratory factor analysis indicate that the remaining items all loaded onto one factor, clearly pointing to a uni-dimensional self-efficacy for writing construct. Results of the data analysis for the revised scale are included on Table 3 and Table 4.

**Discussion**

Results of this analysis indicate that the revised Self-efficacy for Writing Scale is a reliable measure of self-efficacy for writing. Furthermore, self-efficacy for writing, as conceptualized in this study, appears to be a uni-dimensional construct. That is, participants appeared to have either high or low self-efficacy for the writing process as a whole, as opposed to feeling variable levels of efficacy at different stages in the writing process. Those who felt they were strong writers felt they were strong on most tasks. Those who felt they were weak writers felt weaker on most tasks. The one exception to this was in the area of distractibility, where most participants felt they would have difficulty self-regulating their attention in a distracting environment.

 These results appear to validate the process approach to writing instruction. Following the work Hayes and Flowers (1980), most writing researchers shifted their focus to a process writing approach rather than focusing on isolated skills like grammar instruction or pre-writing activities. A recent meta-analysis of research on writing for adolescents with LD (Rogers & Graham, 2009) further validated this conceptual understanding of writing ability. This meta-analysis of single-subject research studies found markedly smaller effect sizes for instructional approaches that focused on isolated skills like grammar than it found for strategy instruction, which takes a process writing approach.

**Limitations**

A major limitation of this study is that the sample used in this study does not match the population for which the Self-efficacy for Writing Scale is intended. Results from this sample of older, mostly self-efficacious writers may look very different from the results of middle school students with EBD and LD who are still learning how to compose well-organized essays. It is easily conceivable that more accomplished writers tend to look at the writing process as a whole, while still-developing writers are more acutely focused on mastering a particular stage of the writing process at any given time.

There were other limitations of the given sample. One limitation was the use of a convenience sample. Because a convenience sample was used, rather than a random sample, results of this study cannot be generalized to other population. Further impacting the ability to generalize to other populations was the relatively small sample size used for validating the measure. Typically, several hundred respondents are used to validate new measures.

Finally, another limitation of this study is that writing samples were not collected to establish the relationship between self-efficacy for writing tasks and actual writing performance. This is an important issue for students with EBD and LD, who tend to over estimate their abilities and may not accurately evaluate their own work.

**Directions for Future Research**

 The next step in validating the Self-efficacy for Writing Scale would be to administer it to a large group of adolescents with mild disabilities (e.g., LD, EBD). This is the population for which the measure is intended, and given their particular learning characteristics, generalizing to this population of students from non-disabled populations is not possible. Additional research that looks at the difference in the response patterns of disabled and non-disabled students would also be useful. First, it will help shed light on the ways self-efficacy differs for disabled and non-disabled learners. Second, it may provide insights for designing more effective remedial writing instruction for adolescents with disabilities. Finally, research that correlated the results of the Self-efficacy for Writing Scale with actual writing performance would provide important information about whether typically designed self-efficacy measures provide the information researchers think they provide about students with EBD.

**References**

Bandura, A. (2006). Guide for constructing self-efficacy scales. In A. Bandura, *Self-efficacy beliefs of adolescents* (pp. 307-337). Retrieved from http://www.des.emory.edu/mfp/014-BanduraGuide2006.pdf

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freeman.

Dembo, M., & Eaton, M. (2000). Self-regulation of academic learning in middle-level schools. *The Elementary School Journal, 100*, 473-490.

Emory University (January, 2010). Information on self-efficacy: A community of scholars [Web Page]. Retrieved from http://www.des.emory.edu/mfp/self-efficacy.html

Glaser, C., & Brunstein, J. C. (2007). Improving fourth-grade students' composition skills: Effects of strategy instruction and self-regulation procedures. *Journal of Educational Psychology, 99*, 297-310.

Graham, S., & Harris, K. R. (2003). Students with learning disabilities and the process of writing: A meta-analysis of SRSD studies. In H. L. Swanson, K. R. Harris, & S. Graham (Eds.), *Handbook of research on learning disabilities* (pp.383-402). New York: Guilford.

Graham, S., Harris, K. R., & Troia, G. A. (1998). Writing and self-regulation: Cases from the self-regulated strategy development model. In D. H. Schunk & B. J. Zimmerman (Eds.), *Self-regulated Learning: From teaching to self-reflective practice* (pp. 20-41). New York: Guilford.

Hayes, J. & Flowers, L. (1980). Identifying the organization of writing processes. In L. Gregg & E. R. Steinberg (Eds.), *Cognitive processes in writing* (pp. 3-30). Hillsdale, NJ: Lawrence Erlbaum.

Lane, K., Harris, K., Graham, S., Weisenbach, J., Brindle, M., & Morphy, P. (2008). The effects of self-regulated strategy development on the writing performance of second-grade students with behavioral and writing difficulties. *Journal of Special Education, 41*, 234-253.

Mastropieri, M., Scruggs, T., Mills, S., Irby Cerar, N., Cuenca-Sanchez,Y., Allen-Bronaugh, D., Thompson, C., Guckert, M., & Regan, K. (2009). Persuading students with emotional disabilities to write fluently. *Behavioral Disorders, 35*, 19-40.

Rogers, L. & Graham, S. (2008). A meta-analysis of single subject design writing intervention research. *Journal of Educational Psychology, 100*, 879-906.

Sawyer, R. J., Graham, S., & Harris, K. R. (1992). Direct teaching, strategy instruction, and strategy instruction with explicit self-regulation: Effects on the composition skills and self-efficacy of students with learning disabilities. *Journal of Educational Psychology, 84*, 340-352.

Shell, D. F., Murphy, C. C., & Bruning, R. H. (1989). Self-efficacy and outcome expectancy mechanisms in reading and writing achievement. *Journal of Educational Psychology,* *81*, 91-100.

Wehby, J., Lane, K., & Falk, K. (2003). Academic instruction for students with emotional and behavioral disorders. *Journal of Emotional and Behavioral Disorders, 11*, 194-197.

Zimmerman, B. (2000). Attaining self-regulation: A social cognitive perspective. In M. Boekaerts, P. Pintrich & M. Seidner (Eds.), *Self-regulation: Theory, research, and application* (pp. 13-39). Orlando, FL: Academic Press.

Zimmerman, B. (1989). A social cognitive view of self-regulated academic learning. *Journal of* *Educational Psychology, 81*, 329-339.

Zimmerman, B., & Martinez-Pons, M. (1986). Development of a structured interview for assessing student use of self-regulated learning strategies. *American Educational Research Journal, 23*, 614-628.

Zito, J. R., Adkins, M., Gavins, M., Harris, K. R., & Graham, S. (2007). Self-regulated strategy development: Relationship to the social-cognitive perspective and the development of self-regulation. *Reading and Writing Quarterly, 23*, 77-95.

Table 1

*Descriptive Statistics and Item-total Correlations for the 16-item Self-efficacy for Writing Scale*

|  |  |  |
| --- | --- | --- |
| Item  | Mean (SD)a | r |
| 1. I will be able to start writing this essay without any difficulty.
 | 4.09 (.87) | .61 |
| 1. Even if I don’t like this topic, I will still be able to write a good essay about it.
 | 4.15 (.84) | .67 |
| 1. I can make a good plan for this essay.
 | 4.19 (.72) | .69 |
| 1. I can write a good introduction sentence on this topic.
 | 4.19 (.82) | .63 |
| 1. It will be hard for me to find and correct all the grammatical errors in my essay.b
 | 3.99 (.92) | .27 |
| 1. It will be hard for me to decide what goes first, second, third, and so on. b
 | 3.97 (.89) | .37 |
| 1. If I get stuck while I am writing, I will be able to find ways to overcome the problem.
 | 4.21 (.69) | .64 |
| 1. When writing an essay on this topic, I can think of good reasons to persuade the reader.
 | 4.09 (.77) | .57 |
| 1. I can write a good essay on this topic.
 | 4.21 (.71) | .68 |
| 1. I will be able to rewrite my confusing sentences clearly.
 | 4.21 (.62) | .52 |
| 1. When writing this essay I will be able to think of arguments for both sides of the topic.
 | 4.27 (.77) | .47 |
| 1. I will be able to revise my first draft of this paper to make a better-organized essay.
 | 4.30 (.70) | .59 |
| 1. It will be hard for me to write good transitional sentences from one idea to another. b
 | 3.61 (1.17) | .23 |
| 1. I will be able to manage my time effectively to finish this paper during this class period.
 | 3.82 (.87) | .55 |
| 1. It will be hard for me to concentrate on my writing if there are many distractions around me. b
 | 2.42 (1.08) | .18 |
| 1. I will be able to find someone to give me ideas about how to make my paper better.
 | 3.90 (.87) | .05 |

*Note.* aThe response scale ranged from 1=strongly disagree to 5=strongly agree. b Responses to negatively worded items were recoded to correspond to positively worded item.

Table 2

*Factor Loadings for Exploratory Factor Analysis of 16-item Self-efficacy for Writing Scale*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item  | Factor 1 | Factor 2 | Factor 3 | Factor 4 |
| 1. I will be able to start writing this essay without any difficulty.
 | **.70** | -.28 | .25 | .06 |
| 1. Even if I don’t like this topic, I will still be able to write a good essay about it.
 | **.80** | -.20 | .05 | -.16 |
| 1. I can make a good plan for this essay.
 | **.82** | -.17 | -.05 | -.25 |
| 1. I can write a good introduction sentence on this topic.
 | **.73** | -.04 | -.13 | -.30 |
| 1. It will be hard for me to find and correct all the grammatical errors in my essay.
 | .25 | **.62** | .02 | -.01 |
| 1. It will be hard for me to decide what goes first, second, third, and so on.
 | **.34** | **.37** | .25 | -.29 |
| 1. If I get stuck while I am writing, I will be able to find ways to overcome the problem.
 | **.67** | .17 | .09 | -.13 |
| 1. When writing an essay on this topic, I can think of good reasons to persuade the reader.
 | **.69** | **-.47** | .20 | .20 |
| 1. I can write a good essay on this topic.
 | **.78** | -.11 | -.19 | .10 |
| 1. I will be able to rewrite my confusing sentences clearly.
 | **.53** | **.48** | -.11 | .15 |
| 1. When writing this essay I will be able to think of arguments for both sides of the topic.
 | **.57** | -.07 | **-.30** | .19 |
| 1. I will be able to revise my first draft of this paper to make a better-organized essay.
 | **.70** | .13 | -.28 | .25 |
| 1. It will be hard for me to write good transitional sentences from one idea to another.
 | .20 | .08 | **.61** | .22 |
| 1. I will be able to manage my time effectively to finish this paper during this class period.
 | **.54** | **.39** | .09 | .14 |
| 1. It will be hard for me to concentrate on my writing if there are many distractions around me.
 | .17 | .02 | .23 | .01 |
| 1. I will be able to find someone to give me ideas about how to make my paper better.
 | .03 | .22 | .01 | .03 |

*Note.* Factor loadings > .03 are in bold.

Table 3

*Descriptive Statistics and Item-total Correlations for the Self-efficacy for Writing Scale with Items Deleted*

|  |  |  |
| --- | --- | --- |
| Item  | Mean (SD)a | r |
| 1. I will be able to start writing this essay without any difficulty.
 | 4.09 (.87) | .65 |
| 1. Even if I don’t like this topic, I will still be able to write a good essay about it.
 | 4.15 (.84) | .75 |
| 1. I can make a good plan for this essay.
 | 4.19 (.72) | .78 |
| 1. I can write a good introduction sentence on this topic.
 | 4.19 (.82) | .67 |
| 1. If I get stuck while I am writing, I will be able to find ways to overcome the problem.
 | 4.21 (.69) | .64 |
| 1. When writing an essay on this topic, I can think of good reasons to persuade the reader.
 | 4.09 (.77) | .63 |
| 1. I can write a good essay on this topic.
 | 4.21 (.71) | .75 |
| 1. I will be able to rewrite my confusing sentences clearly.
 | 4.21 (.62) | .47 |
| 1. When writing this essay I will be able to think of arguments for both sides of the topic.
 | 4.27 (.77) | .55 |
| 1. I will be able to revise my first draft of this paper to make a better-organized essay.
 | 4.30 (.70) | .67 |
| 1. I will be able to manage my time effectively to finish this paper during this class period.
 | 3.82 (.87) | .48 |

*Note.* aThe response scale ranged from 1=strongly disagree to 5=strongly agree.

Table 4

*Factor Loadings for Exploratory Factor Analysis of Self-efficacy for Writing Scale with Items Deleted*

|  |  |  |
| --- | --- | --- |
| Item  | Factor 1 | Factor 2 |
| 1. I will be able to start writing this essay without any difficulty.
 | **.70** | -.26 |
| 1. Even if I don’t like this topic, I will still be able to write a good essay about it.
 | **.81** | -.25 |
| 1. I can make a good plan for this essay.
 | **.83** | -.20 |
| 1. I can write a good introduction sentence on this topic.
 | **.71** | -.09 |
| 1. If I get stuck while I am writing, I will be able to find ways to overcome the problem.
 | **.65** | .15 |
| 1. When writing an essay on this topic, I can think of good reasons to persuade the reader.
 | **.69** | **-.31** |
| 1. I can write a good essay on this topic.
 | **.79** | -.00 |
| 1. I will be able to rewrite my confusing sentences clearly.
 | **.50** | **.49** |
| 1. When writing this essay I will be able to think of arguments for both sides of the topic.
 | **.58** | .08 |
| 1. I will be able to revise my first draft of this paper to make a better-organized essay.
 | **.70** | **.32** |
| 1. I will be able to manage my time effectively to finish this paper during this class period.
 | **.51** | **.40** |

*Note.* Factor loadings > .03 are in bold.

Appendix A

*Self-efficacy for Writing Scale*

**Persuasive Writing**

Directions: Read the essay prompts below and choose the one you would prefer to write about. Answer the following questions based on how you feel about your writing on this topic.

**Is it better to do a staycation (i.e., vacation at home with day trips) or go away for a vacation?**

**OR**

**Should people your age be allowed to talk on their cell phones while driving?**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Strongly disagree | Disagree | Neutral or Maybe | Agree | Strongly agree |
| 1. I will be able to start writing this essay without any difficulty. | 1 | 2 | 3 | 4 | 5 |
| 2. Even if I don’t like this topic, I will still be able to write a good essay about it. | 1 | 2 | 3 | 4 | 5 |
| 3. I can make a good plan for this essay. | 1 | 2 | 3 | 4 | 5 |
| 4. I can write a good introduction sentence on this topic. | 1 | 2 | 3 | 4 | 5 |
| 5. It will be hard for me to find and correct all the grammatical errors in my essay. | 1 | 2 | 3 | 4 | 5 |
| 6. It will be hard for me to decide what goes first, second, third, and so on. | 1 | 2 | 3 | 4 | 5 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Strongly disagree | Disagree | Neutral or Maybe | Agree | Strongly agree |
| 7. If I get stuck while I am writing, I will be able to find ways to overcome the problem. | 1 | 2 | 3 | 4 | 5 |
| 8. When writing an essay on this topic, I can think of good reasons to persuade the reader. | 1 | 2 | 3 | 4 | 5 |
| 9. I can write a good essay on this topic. | 1 | 2 | 3 | 4 | 5 |
| 10. I will be able to rewrite my confusing sentences clearly. | 1 | 2 | 3 | 4 | 5 |
| 11. When writing this essay I will be able to think of arguments for both sides of the topic. | 1 | 2 | 3 | 4 | 5 |
| 12. I will be able to revise my first draft of this paper to make a better-organized essay. | 1 | 2 | 3 | 4 | 5 |
| 13. It will be hard for me to write good transitional sentences from one idea to another. | 1 | 2 | 3 | 4 | 5 |
| 14. I will be able to manage my time effectively to finish this paper during this class period. | 1 | 2 | 3 | 4 | 5 |
| 15. It will be hard for me to concentrate on my writing if there are many distractions around me. | 1 | 2 | 3 | 4 | 5 |
| 16. I will be able to find someone to give me ideas about how to make my paper better. | 1 | 2 | 3 | 4 | 5 |

Appendix B

*Revised Self-efficacy for Writing Scale*

**Persuasive Writing**

Directions: Read the essay prompts below and choose the one you would prefer to write about. Answer the following questions based on how you feel about your writing on this topic.

**Is it better to do a staycation (i.e., vacation at home with day trips) or go away for a vacation?**

**OR**

**Should people your age be allowed to talk on their cell phones while driving?**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Strongly disagree | Disagree | Neutral or Maybe | Agree | Strongly agree |
| 1. I will be able to start writing this essay without any difficulty. | 1 | 2 | 3 | 4 | 5 |
| 2. Even if I don’t like this topic, I will still be able to write a good essay about it. | 1 | 2 | 3 | 4 | 5 |
| 3. I can make a good plan for this essay. | 1 | 2 | 3 | 4 | 5 |
| 4. I can write a good introduction sentence on this topic. | 1 | 2 | 3 | 4 | 5 |
| 5. If I get stuck while I am writing, I will be able to find ways to overcome the problem. | 1 | 2 | 3 | 4 | 5 |
| 6. When writing an essay on this topic, I can think of good reasons to persuade the reader. | 1 | 2 | 3 | 4 | 5 |
| 7. I can write a good essay on this topic. | 1 | 2 | 3 | 4 | 5 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Strongly disagree | Disagree | Neutral or Maybe | Agree | Strongly agree |
| 8. I will be able to rewrite my confusing sentences clearly. | 1 | 2 | 3 | 4 | 5 |
| 9. When writing this essay I will be able to think of arguments for both sides of the topic. | 1 | 2 | 3 | 4 | 5 |
| 10. I will be able to revise my first draft of this paper to make a better-organized essay. | 1 | 2 | 3 | 4 | 5 |
| 11. I will be able to manage my time effectively to finish this paper during this class period. | 1 | 2 | 3 | 4 | 5 |