

**A MEASUREMENT AMONG THE INDICATORS OF THE WRITING SELF-EFFICACY  
SCALE AND SELF-ASSESSMENT**

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**Abstract**

This research investigated a measurement among the indicators of writing self-efficacy and self-assessment scales. This research aimed to examine the relationship between the variables forming indicators of the self-efficacy scale and self-assessment scales and the pre-test and post-test treatment that influence the language writer's self-efficacy scale and self-assessment. This research involved 135 students of the University of Pahlawan Tuanku Tambusai, Indonesia. Data were analyzed using the correlation test; the ANOVA Repeated Measures test and the paired Z-test. The result shows that the variables comprising the Language Writer Self-Efficacy Scale and Self-Assessment have a significant and strong correlation ( $>0.50$ ) overall. Moreover, the post-test treatment significantly affects changes in Self-Efficacy and Self-Assessment Scales.

**Keywords: Writing self-efficacy, Self-assessment, Academic writing, Writing measurement**

## **CHAPTER I**

### **INTRODUCTION**

In recent years, scholars have paid more attention to graduate-level writing techniques in various subjects. The ability to express a wide range of academic writing in English, such as research projects, conference papers, scientific journals, or theses/dissertations, has historically been considered among the most important skills for graduate students in many sectors (Paltridge, 1997). Even though the writing is a crucial skill for students' academic success, most students lack adequate writing skills (Graham, 2008). Writing is also difficult to master; it is the most common way instructors evaluate students' success. Writing is a complex and difficult undertaking that necessitates completing several steps. Moreover, writing is thought to be the most important skill that may help students learn and achieve.

Self-efficacy is a powerful motivation construct (Pajares, 1997). Self-efficacy can affect how much effort is put in, how consistent one will be in completing a task, and how emotionally one responds to occurrences. Thus, self-efficacy is regarded as a strong component of student writing competency (Bruning et al., 2013) and a strong indicator of achievement (Jinks & Lorsbach, 2003). Furthermore, academic self-efficacy has been confirmed to predict total grade points (Feldman & Kubota, 2015). Even though there has been numerous research on motivation, few were on self-efficacy.

Self-efficacy was a major predictor of writing quality and length of individual stories in fourth-grade children (Graham et al., 2017). Students with a higher level of self-efficacy produced a prolonged time and higher-quality writing projects. Sanders-Reio et al. (2014) found students who have high writing self-efficacy were more focused even during the process of writing, and good writing needs continuous effort (Pajares & Johnson, 1994). Furthermore, students with high levels of writing self-efficacy seem more susceptible to interacting with planned writing techniques that can impact the standard of their writing process (e.g., giving details and planning) (Graham et al., 2017).

Numerous studies have discovered a connection between writing self-efficacy and performance (Sanders-Reio et al., 2014). Students mostly found

precise techniques to increase their self-efficacy or sufficient writing practice (Pajares, 2003). In addition, Bartsch et al. (2012) mentioned that by exposing students to fictional material in an undergraduate research methodology and statistical course, the researchers improved students' self-efficacy. In addition, students inside the experimental group attended a 10-minute presentation on their course experiences, time management, and study approaches for a graduate colleague. Following the presentations, intervention students had significantly higher self-efficacy for course performance than control students. Following concepts for first-year college students, Davidson et al. (2012) reported that post-test academic and self-efficacy scores were substantially higher. They created three student groups. Every group was given a lesson regarding theory and was required to create a concept learning achievement map, and mental practice is needed to achieve learning targets.

Relatedly, Bresó et al. (2011) mentioned that a cognitive-behavioral treatment (CBT) session intended to minimize challenge and anxiousness increased undergraduate students' participation and academic achievement. CBT aims to identify and modify inappropriate beliefs that lead to negative emotions and actions using a systematic methodology. The researchers demonstrated how people might benefit from cognitive-behavioral coaching (CBC) to enhance the students' written compositions. They applied the ABCDE framework to discover active experiences (A) that contribute to negative emotions (B) and unfavorable outcomes (C); to avoid unfavorable outcomes, the coach refutes (D) and incorrect writing assumptions and assists the writer in developing successful techniques (E).

### *1.1 Writing Self-Efficacy*

One of the primary components in a study by Sanders-Reio et al. (2014) is writing self-efficacy and its relationships to various writing-related variables, such as writing approaches, writing anxiety, and writing ability. Another research by McCarthy et al. (1985) reported that students with a high level of writing self-efficacy write better and have less writing anxiety than those with a low level of writing self-efficacy. Moreover, it was recently revealed that writing self-efficacy is

a better factor in students' writing tests than writing anxiety (Sanders-Reio et al., 2014).

However, several studies on writing self-efficacy examined native English speakers (Bruning et al., 2013). Few studies have looked at the notion from the standpoint of ESL/EFL students. As Woodrow (2011) pointed out, there is a paucity of research on L2 writing self-efficacy. Furthermore, most studies on L1 writing self-efficacy focused on students in secondary or university settings, with many studies directly examining writing self-efficacy among NES and ESL/EFL graduate students. Previously, writing self-efficacy among master's or doctorate students was considered one of the numerous subscales of research self-efficacy (Phillips & Russell, 1994).

Forester et al. (2004) employed a large sample of master's and doctorate students in psychology programs in the United States to investigate the underlying features of three research self-efficacy questionnaires previously used in other studies. Self-efficacy for data analysis, research integration, data collection, and technical writing was four subscales of research self-efficacy. However, only 6 out of the 58 survey items on their modified instrument, for example, "writing the opening and discussion sections for a research article for publication and "writing the introduction and literature review for a thesis," measured technical writing skills.

### *1.2 Self-assessment*

Self-assessment is "the assessment of one's own performance's 'quality as well as the discovery of one's skills and problems to improve one's academic achievement" (Klenowski, 1995). Furthermore, Klenowski (1995) mentioned the benefits of self-assessment are much more likely to obtain: students and teachers deal with self-assessment requirements, teacher-student dialogue focused on substantiation for decisions, and self-assessments contribute to the grade. Self-assessment is a crucial component of active learning as it enables students to pay attention to the quality of their work instead of relying on their teacher for constructive assessments. Self-evaluation is a formative assessment approach in which individuals evaluate the quality of their work, assess the extent to which it reflects explicitly stated goals or criteria, and revise as required.

### *1.3 Research Question*

This research was conducted on 135 students with pre-test and post-test treatment with the following research questions.

1. What is the relationship between the variables forming indicators of the Language Writer Self-Efficacy Scale and Self-Assessment?
2. Do the pre-test and post-test treatments affect the Language Writer's Self-Efficacy Scale and Self-Assessment?

## **CHAPTER II**

### **METHODOLOGY**

#### *2.1 Screening Assessment and Participants*

A total of 135 students of the University of Pahlawan Tuanku Tambusai were involved in this research. Intervention Central offered the story of the screening CBM introduction. Students in groups of 5–20 were given screening assessment items by experts on the subject. The WSES, WAT, and writing CBMs were given randomly, and the researchers read the directions aloud. Students were allowed one minute to plan before writing for five minutes. After screening, CBMs were rated on total words written (TWW) and proper writing sequences (CWS), as well as self-report items and reactions. Some participants were asked to assist in this procedure if they satisfied these criteria: (1) would be visiting the Boys and Girls Club during the week, (2) having CBM grades between 10th and 25th percentages, and (3) had under WSES and WAT scores. Three of the five respondents who met the inclusion criteria provided their agreement and assent.

#### *2.2 Instrument*

The questionnaire was adopted from Bruning et al. (2013) to measure the writing self-efficacy scale. This questionnaire has a total of ten items divided into five scales. These scales were used to assess students' ability to use language, such as Linguistic self-efficacy, Self-regulatory efficacy, Performance self-efficacy, Level of experience, Competence as a writer, Comfort when discussing with the teacher, Comfort when discussing with the peer, Comfort when editing & making suggestions, Understanding a successful academic essay and Knowing how to write a successful academic essay.

#### *2.3 Design and analysis of data*

The data used in this study was analyzed by the Correlation Test to determine the close relationship between independent and dependent variables. In the correlation test, the strength or weakness of a relationship is indicated by the correlation coefficient ( $r$ ) from -1 to 1. If  $r$  is closer to 0, the relationship between the two variables is weak. Several tests can be used to examine correlations: Pearson, Kendal's, and Spearman. In this study, the Pearson Correlation test was employed.

After the Correlation Test, the ANOVA Repeated Measures test was undertaken, the development of the One-Way ANOVA. In One-Way ANOVA, the samples used are unpaired samples, while in the repeated measures test, the samples are paired. The repeated measures technique examines whether there is a significant difference between the results of repeated measurements on a research variable. Next, the paired Z-test was conducted, and the mean difference test if the data scale of the two variables was quantitative (Interval or Ratio). Paired Z-test is a parametric mean difference test on two paired data.

#### *2.4 Operations*

Interventions were held three times a week between 11:30 and 1:00 p.m. Furthermore, if students were unavailable or went early, it was common for students to complete in less than three weekly periods. The students finished the subject the next day and presented it after the intervention was terminated. While sessions were occasionally interrupted, they were always 35–45 a few minutes. Nonetheless, the time was frequently extended out over various lengths of time.

#### *2.5 Baseline*

The researchers utilized a program for administering a new version of a writing CBM. Next, the following procedures were done: (1) the students were given a lined essay with both the headline beginner typed above, (2) the researchers read the story starting center loudly, (3) students started telling their stories and wrote it, (4) the researchers provides the students a blank piece of paper, and (5) decided to tell him or her that perhaps the paper could be used for making plans. Due to the removal of time constraints, students could participate actively in the writing process. The researchers were unable to provide any assistance to students.

#### *2.6 The SI-CBT intervention*

This session consisted of seven periods. This relied on all students individually, about 25 until 40 minutes. Furthermore, they did not do the writing test in the first and second periods. During this session, the researchers discussed the ABC components of Gardiner and Kearns' ABCDE type. Students' responses to

the WSES and WAT were examined during the first course. The researchers also discussed with each student their responses, emphasizing their lacking of self abilities. Additionally, students were encouraged to reflect on the stories they wrote in baseline during session two. According to the ABCDE approach, the researchers must use baseline materials to help them recognize the stimulating events, detrimental mindsets, and disagreeable results in accordance with the ABCDE model.

In sessions three to six, students received the modified type of writing CBM employed in the baseline. In the baseline session, the researchers gave the students lined paper with the writing prompt written at the top. The researchers read the question loudly to the students, assuring them that they could write for as long as they wanted and giving them blank lined paper to start with. Students were encouraged to use the technique and were allowed to ask the researchers for assistance. Although students were allowed to ask for help with the mnemonic, they were just allowed to ask for help with spelling and calculations related to the number in the stories.

After the students had completed the writing, the researchers requested them to reflect on the procedure. Students were assessed on their memorization as well as the quality of their work. At the end of session six, the researchers utilized additional training based on student advice. Each lesson focused on the revision of low abilities on the screening test (for example, verb tense, singular/plurals, and semi-colons) and skills that each student wished to learn. The final session was devoted to supporting students in determining how to integrate the new successful strategies taught in the course.

### *2.7 Self-contained performance*

Students conducted five independent performance sessions once the intervention sessions were completed. The procedures were similar to those in the baseline. A component of reward was added. Then, the addition was made for a variety of reasons. First, a visual inspection of baseline and intervention data revealed extremely varied performance, which might indicate inconsistent motivation that could be addressed with incentives. In addition, this finding was reinforced by observations of conduct during the preceding phases. Furthermore,



most baseline assessments were performed by students, including writing assignments with no supervision, assessment, motivation, or CBT aspects. Then consider whether these baseline sessions have diminished his motivation to compose.

With a reward, students completed five periods of actual achievement. At the outset of each session, students were informed that they could win a prize. A paper bag containing numbered slips of paper was shown to the students. Students were instructed that if they wrote more words in their story than the number on the piece of paper they chose from the bag, they would win a prize from a prize box. The prize package contained various unusual items they had never seen before. The lid stayed on the box until the children concluded their story, and new things were added before each session.

Students chose a scrap of paper from a bag to begin their skills and reward. The scrap of paper was attached to the bag and hidden from the students and researchers after students completed their stories. As a result, students were handed lined paper with the prompt written across the top and the blank lined paper on which they might plan. The researchers read the suggestion aloud to the students and informed them that they may take as much time as they decided to write their story but that the researchers would not assist them. When students concluded their stories, the researchers and students calculated the total words submitted.

### *2.8 Interscorer agreement*

For all writing factors, the agreement was calculated by dividing the total number of agreements by the total number of agreements plus disputes and then multiplied by 100. (TWW, CWS, percentage of mnemonic components contained). The overall interscorer agreement for TWW was predicted to be 100% throughout all levels. Consequently, interscorer agreement for CWS was 97 % (86–100), with 96 percent (86–100) agreement across baseline, 98 % (95–100) agreement across intervention, and 97 % ( 91–99) agreement across independent performance (plus

reward). In the interscorer agreement, 92 % of memory components were present (80–100).

### *2.9 The integrity of the procedure*

A selected sample of sessions from each phase (30%) was recorded. A trained researcher listened to each audio recording independently and used the original researcher's guideline to grade procedural integrity. The session target list functioned as a process to ensure procedures were followed correctly. To establish procedural integrity, the total number of items completed was divided by the total number of items on the checklist and multiplied by 100. Procedural integrity was determined to be 100 percent across all processes.

## CHAPTER III

### RESULT

#### *3.1 Descriptive statistics*

Descriptive statistics is a preliminary data analysis technique to provide an overview of measured variables. Descriptive statistics consisted of data concentration (Mean, Mode, Median, etc.) and data distribution (standard deviation, variance, etc.). The mean and standard deviation of all variables in the study are presented in Table 1.

**Table 1.** Descriptive Statistics of Research Variables

No	Item	Pre Test				Pre Test			
		Mean	SD	Min	Max	Mean	SD	Min	Max
1	Linguistic self-efficacy	2.96	1.03	1.20	5.00	3.06	1.03	1.30	5.00
2	Self-regulatory efficacy	2.90	1.02	1.20	5.00	2.99	1.02	1.30	5.00
3	Performance self-efficacy	2.59	0.85	1.10	4.30	2.68	0.84	1.20	4.40
4	Level of experience	2.43	0.75	1.10	3.90	2.53	0.75	1.20	4.00
5	Competence as a writer	2.48	0.78	1.10	4.30	2.61	0.91	1.20	8.00
6	Comfort in discussing with a teacher	2.44	0.73	1.10	4.00	2.53	0.73	1.20	4.00
7	Comfort in discussing with peers	2.45	0.71	1.20	3.80	2.54	0.71	1.30	3.90
8	Comfort in editing and & making suggestions	2.57	0.78	1.10	4.30	2.67	0.78	1.20	4.40
9	Understanding a successful academic essay	2.52	0.74	1.20	4.20	2.63	0.73	1.30	4.30
10	Knowing how to write a successful academic essay	2.50	0.77	1.20	4.00	2.59	0.76	1.30	4.00

Table 1 shows the mean and standard deviation of all variables for Pre Test and Post Test. The result is mean of all indicators in the Post Test group is greater than the Pre Test group. It seems there is an effect of the treatment, leading to a greater mean of the post-test. To determine whether the effect is significant, it is necessary to carry out further tests.

#### *3.2 Spearman's Correlation*

Correlation analysis is a statistical method used to determine the close relationship between variables in this research. The results of the correlation test with the Pearson method are shown in Table 2.

**Table 2.** The Correlation Test Spearman Results of Language Writer Self-Efficacy Scale

No	Item	R			
		1	2	3	4
1	Language Writer Self-Efficacy Scale		0.603**	0.640**	0.552**
2	Linguistic_self_efficacy	0.603**		0.008	0.012
3	Self_regulatory_efficacy	0.640**	0.008		0.101
4	Performance_self_efficacy	0.552**	0.012	0.101	

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 2 shows the correlation between indicators of the variable Language Writer Self-Efficacy Scale as measured by three different indicators. The results showed that Linguistic self-efficacy has a fairly strong and significant relationship with the Language Writer Self-Efficacy Scale ( $r=0.603$ ). The self-regulatory efficacy also has a fairly strong and significant relationship with the Language Writer Self-Efficacy Scale ( $r= 0.640$ ). In addition, Performance Self-Efficacy has a fairly strong and significant relationship with the Language Writer Self-Efficacy Scale ( $r=0.552$ ). Overall, the variables forming the Language Writer Self-Efficacy Scale have a fairly strong and significant correlation ( $r>0.50$ ).

**Table 3.** The Result of the Self-Assessment Correlation Test

No	Item	R							
		1	2	3	4	5	6	7	8
1	Self Assessment		0.491**	0.181**	0.397**	0.445**	0.475**	0.360**	0.479**
2	Level_of_experience	0.491**		-0.013	0.002	0.081	0.096	0.021	0.202**
3	Competence_as_a_writer	0.181**	-0.013		-0.143*	-0.093	0.236**	-0.046	-0.073
4	Comfort_discussing_with_teacher	0.397**	0.002	-0.143*		0.098	0.186**	0.004	0.025
5	Comfort_discussing_with_peer	0.445**	0.081	-0.093	0.098		0.071	0.008	0.151*
6	Comfort_editing_n_making_suggestions	0.475**	0.096	0.236**	0.186**	0.071		0.128*	0.103
7	Understand_a_successful_academic_essay	0.360**	0.021	-0.046	0.004	0.008	0.128*		-0.063
8	Know_how_to_write_a_successful_academic_essay	0.479**	0.202**	-0.073	0.025	0.151*	0.103	-0.063	

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 3 shows the correlation between indicators on the Self-Assessment variable, measured by seven different indicators. The results showed that the Level of experience indicator has a fairly strong and significant relationship with Self-

Assessment ( $r=0.491$ ). The Competence as a writer indicator also has a fairly strong and significant relationship with Self-Assessment ( $r=0.181$ ). Then the Comfort in discussing with the teacher indicator has a fairly strong and significant relationship with self-assessment ( $r=0.397$ ). The Comfort in discussing with peer indicator has a fairly strong and significant relationship with Self-Assessment ( $r=0.445$ ). The Comfort in editing and making suggestions indicator also has a fairly strong and significant relationship with Self-Assessment ( $r=0.475$ ). Understanding a successful academic essay has a fairly strong and significant relationship with Self-Assessment ( $r=0.360$ ). Knowing how to write a successful academic essay also has a fairly strong and significant relationship with Self-Assessment ( $r=0.479$ ). Overall, the indicators that make up the self-assessment variable have a fairly strong and significant correlation.

### 3.3 Kurtosis Normality Test

The normality test examines whether the data to be tested with various statistical tests meets the normality assumption. The Normality Test with Kurtosis provides its advantages, namely that the normality graph will be known to be skewed to the right or the left, too flat or clustered in the middle. Therefore, the normality test with Kurtosis is also often referred to as a measure of data bias. The results of the kurtosis normality test can be seen in Table 4.

**Table 4.** The Result of the Kurtosis Normality Test

	N	Mean	Std. Deviation	Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error
Language Writer Self-Efficacy Scale	270	2.8637	0.57962	-0.027	.295
Self-Assessment	270	2.5352	0.30368	-0.250	.295
Valid N (list-wise)	270				

In the Language Writer Self-Efficacy Scale variable, the Kurtosis value was -0.027. As the Kurtosis value is in the range of -1.96 to 1.96, it can be concluded that the Language Writer Self-Efficacy Scale data in the pre-test and post-test groups meet the normality assumption. For the Self-Assessment variable, the Kurtosis

value was -0.250. It can be concluded that the Self-Assessment data in the pre-test and post-test groups did not meet the assumption of normality.

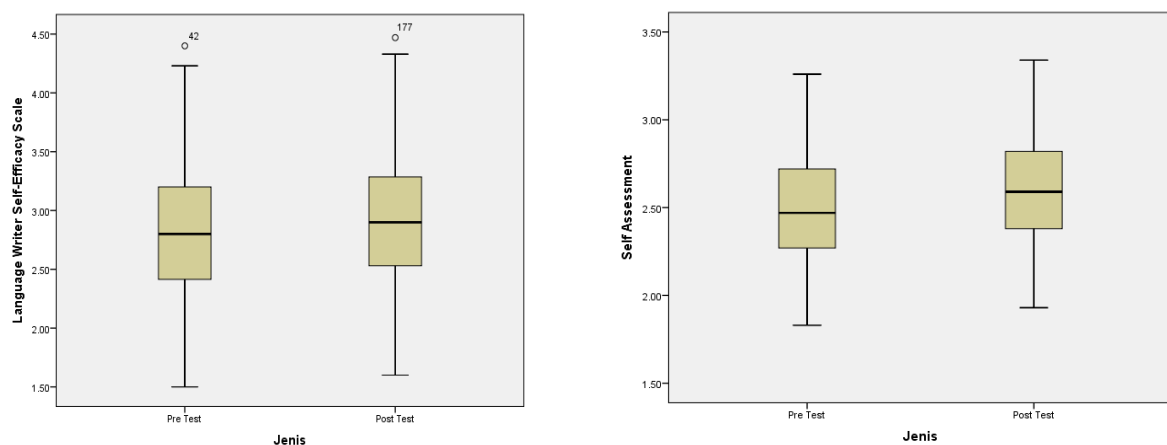
### 3.4 Levine Homo Homogeneity Test

The test aims to determine whether the variation of some data from the population has the same variance. This test generally serves as a condition (although not an absolute requirement) in comparative analysis. The results of the Levine homogeneity test can be seen in Table 5.

**Table 5.** The Result of Levene's Test

			Levene	df1	df2	Sig.
			Statistics			
Language Writer Self-Efficacy Scale	Based on Mean		0.022	1	268	0.884
			0.021	1	268	0.887
			0.021	1	268	0.887
			0.022	1	268	0.885
Self-Assessment	Based on Mean		0.001	1	268	0.990
			0.002	1	268	0.973
			0.002	1	268	0.973
			0.001	1	268	0.982

For the Language Writer Self-Efficacy Scale variable, the Levene statistics was 0.021-0.022, and the p-value was 0.884-0.887; thus, it can be concluded that the variance of the Language Writer Self-Efficacy Scale data in the pre-test and post-test groups was homogeneous. For the Self-Assessment variable, the Levene statistics is at 0.001-0.002, and the p-value was 0.973-0.990, also indicating that the variance of the Self-Assessment data in the pre-test and post-test groups was homogeneous. The box plot of the homogeneity test is also presented in Figure 1.



**Figure 1.** Box Plot of Homogeneity Test*3.5 ANOVA Test Repeated Measures*

Repeated Measures ANOVA was conducted to determine whether the differences in the treatment of paired samples repeatedly produced significant differences in the mean. The results of the ANOVA Repeated Measures are displayed in Table 6.

**Table 6.** The Result of Repeated Measures ANOVA

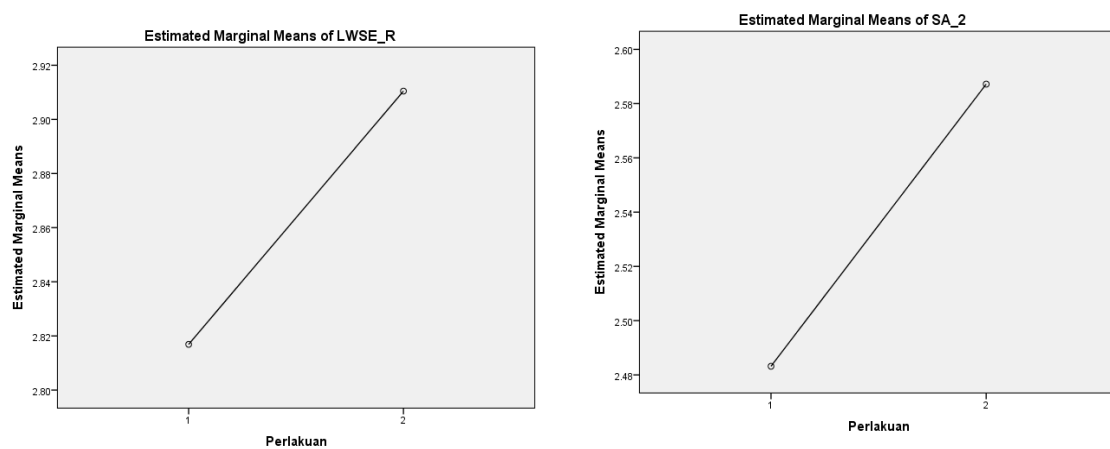
Item	Language Writer Self-Efficacy Scale					Self Assessment				
	F	Sig	Mean Difference	LB	UB	F	Sig	Mean Difference	LB	UB
Mauchly's W		0.000					0.000			
Green-Geisser	873.365	0.000				337.790	0.000			
Pairwise Comparisons			-0.094	-	-			-0.104	-	-
Wilk's Lamda	0.133	0.000		0.1	0.087	0.284	0.000		0.115	0.093

Mauchly's W showed the difference in variance formed between the pre-test and post-test groups for each variable. For the Language Writer Self-Efficacy Scale variable, it was significant ( $p=0.000$ ), indicating that the variance in the score of the Language Writer Self-Efficacy Scale between the pre-test and post-test treatments had a significant difference. For the Self-Assessment variable, it was also significant ( $p=0.000$ ), showing that the variance of the Self-Assessment between the pre-test and post-test treatments also had a significant difference.

The Mean Difference showed the difference between the pre-test and post-test treatments. For the Language Writer Self-Efficacy Scale variable, the Mean Difference was  $-0.094$ , meaning that the overall mean of the Language Writer Self-Efficacy Scale of the post-test treatment was higher than the pre-test. The Lower Bound (LB) of the Language Writer Self-Efficacy Scale variable showed the minimum ( $-0.100$ ), while the Upper Bound (UB) showed the maximum ( $-0.087$ ).

For the Self-Assessment variable, the Mean Difference was  $-0.104$ , indicating that the overall mean of Self-Assessment of the post-test treatment is higher than the pre-test. The LB of the Self-Assessment variable showed a minimum ( $-0.115$ ), while the UB was a maximum ( $-0.093$ ).

The Green House-Geisser test examined the mean difference between the pre-test and post-test scores. It was significant for the Language Writer Self-Efficacy Scale ( $F=873,365$ ,  $P=0.000$ ), indicating the mean of the Language Writer Self-Efficacy Scale was significantly different between the pre-test and post-test. The Self-Assessment variable was also significant ( $F = -337,790$ ,  $p=0.000$ ), showing that the self-assessment in the pre-test and post-test treatments differed significantly. The plot means the difference between treatments is also displayed in Figure 2.



**Figure 2.** Plot Mean Difference between Treatments

### 3.6 Paired samples Z-Test

The Paired samples Z-Test was conducted to determine whether the pre-test and post-test treatment significantly affected the Language Writer Self-Efficacy Scale and Self-Assessment variables. The results of Paired samples Z-Test are shown in Table 7.

**Table 7.** The Result of Paired samples Z-Test

Variable	Correlation	Z	Sig (Z Test)	Mean	Df
Language Writer Self-Efficacy Scale	0.998	29.553	0.000	-0.093	134
Self-Assessment	0.976	18.379	0.000	-0.104	134

For the Language Writer Self-Efficacy Scale, the correlation coefficient was 0.998 (98.8%), showing the strong correlation between indicators forming the Language Writer Self-Efficacy Scale. The mean of -0.093 illustrates that before and after treatment, the mean of the Language Writer Self-Efficacy Scale increased by 0.093. The Z-value was 29,553 ( $p=0.000$ ), meaning that the post-test treatment significantly affects changes in the Language Writer Self-Efficacy Scale.



Furthermore, for the Self-Assessment variable, the correlation coefficient was 0.976 (97.6%), meaning that the correlation between the indicators forming the Self-Assessment variable was strong. The mean of -0.104 illustrates that before and after treatment, the mean of the Self-Assessment variable increased by 0.104. The Z-value obtained was 18,379 ( $p=0.000$ ), meaning that the post-test treatment significantly affected changes in the Self-Assessment.

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## CHAPTER IV

### DISCUSSION & CONCLUSION

This research proposed two research questions. The first research question investigates the relationship between the indicators of the Language Writer Self-Efficacy Scale and Self-Assessment. The results showed that Linguistic Self-Efficacy had a relatively strong and significant correlation with the Language Writer Self-Efficacy Scale ( $r=0.603$ ). The self-regulatory efficacy had a relatively strong and significant correlation with the Language Writer Self-Efficacy Scale ( $0.640$ ). Moreover, the Performance Self-Efficacy Indicator has a relatively strong and significant correlation with the Language Writer Self-Efficacy Scale ( $r=0.552$ ). Thus, overall, the variables comprising the Language Writer's Self-Efficacy and the Self-Assessment scales had a significant and strong correlation ( $r>0.50$ ).

The second research question investigates the effect of pre-test and post-test treatment on the Language Writer's Self-Efficacy Scale and Self-Assessment. The mean difference for the Language Writer Self-Efficacy Scale variable was  $-0.094$ , suggesting that after the post-test treatment, the overall average of the Language Writer Self-Efficacy Scale was higher than the pre-test. The Lower Bound (LB) value represents the lowest average ( $-0.100$ ) on the Language Writer Self-Efficacy Scale variable, while the Upper Bound (UB) represents the highest average ( $-0.087$ ). The mean of  $-0.093$  indicates that before and after treatment, the mean of the Language Writer Self-Efficacy Scale variable increased by  $0.093$ . The Z-value was  $29,553$  ( $p=0.000$ ), meaning that the post-test treatment significantly affects changes in the Language Writer Self-Efficacy Scale. While in the Self-Assessment variable, the correlation value obtained is  $0.976$  ( $97.6\%$ ). The correlation test showed that the correlation between indicators forming the Self-Assessment variable was strong, with the mean of the Self-Assessment variable increased by  $0.104$  before and after the treatment. The Z-value obtained was  $18,379$  ( $p=0.000$ ), meaning that the post-test treatment significantly affects changes in the Self-Assessment.

A study by Andrade et al. (2009) aligns with this research. They looked into the relationship among long- and short-term rubric use (including self-assessment), gender, and writing self-efficacy. The findings revealed that females'

self-efficacy was higher than males' before they started writing. Gender and rubric use had interactions. They found that overall self-efficacy scores increased regardless of condition as students wrote. However, the increase in self-efficacy of females in the treatment group was greater than either female in the comparison group. Long-term rubric use had only been connected with females' self-efficacy.

### **Conclusion**

This research concluded that the variables comprising the Language Writer Self-Efficacy Scale have a significant and strong correlation ( $r > 0.50$ ). While the indicators forming the self-assessment variable also have a strong and significant correlation. Moreover, the post-test treatment significantly affects changes in the Language Writer's Self-Efficacy and Self-Assessment scales.

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