



## **Igniting Motivation: Enhancing Writing through Strategy Training among Grade 11 Students**

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### **Abstract**

This quasi-experimental study investigated the effect of writing strategy training on enhancing motivation among Grade 11 students with 52 students in the experimental group receiving training in cognitive, metacognitive, memory, compensation, and social strategies, while 47 students in the control group followed conventional teaching. Data were collected through pre- and post-test questionnaires that supported by semi-structured interviews. The data were analyzed using independent and paired sample t-tests. The results revealed significant improvements in the experimental group's writing self-efficacy, achievement goal orientation, writing beliefs, affective and overall motivation with all changes demonstrating large effect sizes. These findings indicate that strategy training is an effective approach for strengthening learners' motivation and engagement in academic writing. Based on these results, the study recommends that teachers systematically integrate writing strategy training into classroom practice, curriculum developers embed motivational elements such as autonomy support and mastery-oriented goals into writing pedagogy and future researchers examine the long-term sustainability and applicability of such interventions across diverse educational contexts.

**Keywords:** Writing Strategy Training; Writing Motivation; Writing Anxiety; Self-Efficacy; Metacognitive Strategies; Quasi-Experimental Study

### **Introduction**

Writing remains a cornerstone of academic success in secondary education, yet many upper-secondary learners struggle to sustain motivation for writing tasks. Motivation plays a decisive role in shaping engagement and performance, and its core elements self-efficacy, achievement goal orientation, writing beliefs, and affective responses are particularly influential. Students with strong self-efficacy display greater persistence and produce higher quality texts (Han, 2024; Fernandez & Guilbert, 2024). Similarly, mastery-oriented goals foster resilience, while performance-avoidance goals undermine progress (Schunk, Pintrich, & Meece, 2022). Learners' beliefs about writing, whether incremental or fixed, determine their openness to feedback and their

willingness to improve (Teng & Zhang, 2023). Positive affective responses such as enjoyment and interest further sustain effort and readiness to write (Wang & Teng, 2024). Together, these motivational components form the foundation for effective writing development.

One promising approach to strengthening these motivational dimensions is writing strategy training, which equips learners with cognitive, metacognitive, and self-regulatory routines to plan, monitor, and revise their work. By making the writing process more transparent and manageable, strategy training fosters mastery experiences that raise self-efficacy, shift goal orientations toward learning, and build adaptive beliefs about writing as a skill that can be developed. It also promotes positive affect by reducing uncertainty and creating repeated success experiences. Recent studies confirm that strategy-based instruction improves both engagement and achievement in secondary and EFL contexts (Rahimi, 2024; Zhang & Zhang, 2024).

Despite this growing evidence, few studies have examined how writing strategy training influences the multiple elements of motivation simultaneously, particularly in upper-secondary classrooms where students face demanding curricular requirements. To address this gap, the present study investigates the impact of strategy training on Grade 11 students' writing motivation, focusing specifically on self-efficacy, achievement goal orientation, writing beliefs, and affective responses. In doing so, it seeks to provide actionable insights for teachers and curriculum developers on how strategy-based training can ignite and sustain motivation in adolescent writing classrooms.

### ***Statement of the Problem***

Writing is a cornerstone of academic achievement, yet many Grade 11 students in Ethiopia continue to struggle with motivation in writing tasks. Motivation, particularly its elements of self-efficacy, achievement goal orientation, writing beliefs, and affective responses, plays a decisive role in sustaining writing engagement. Learners with strong self-efficacy approach writing with greater persistence and confidence (Han, 2024; Fernandez & Guilbert, 2024), while mastery-oriented goals encourage deeper engagement compared to performance-driven orientations (Schunk, Pintrich, & Meece, 2022). Adaptive writing beliefs and positive affect further sustain willingness to revise and improve performance (Teng & Zhang, 2023; Wang & Teng, 2024). However, Ethiopian secondary school students often display low confidence, performance-oriented goals, and limited adaptive beliefs about writing, all of which weaken their engagement and achievement (Dinsa & Asgedom, 2023; Hiluf, Khairani, & Meutia, 2024).

Writing strategy training—explicit instruction in cognitive and metacognitive routines such as planning, monitoring, and revising has emerged as a promising intervention to strengthen these motivational elements. International evidence demonstrates that strategy training enhances self-efficacy, fosters mastery goals, and cultivates positive beliefs and affective engagement in writing (Rahimi, 2024; Zhang & Zhang, 2024). Yet, systematic research on its motivational impact in Ethiopian upper-secondary classrooms remains scarce. To address this gap, the present study investigates the effect of writing strategy training on students' motivation. Specifically, it aims to:

1. Evaluate the effect of writing strategy training on students' self-efficacy in writing.
2. Assess the influence of the intervention on students' achievement goal orientation.
3. Examine changes in students' beliefs about writing following the training.
4. Investigate the effect of writing strategy training on students' affective responses toward writing.
5. Analyze the interrelationships among the motivational elements of self-efficacy, goal orientation, beliefs, and affect.

## **Materials and Methods**

### **The Research Design**

This study employed a quasi-experimental design because random assignment of students to experimental and control groups was not feasible in the school context. Quasi-experiments are widely used in educational research to evaluate instructional interventions under real classroom conditions as they allow for the examination of causal effects while maintaining ecological validity (Creswell & Creswell, 2018; López & Santibáñez, 2022).

### **The Participants of the Study**

The participants of this study were 90 Grade 11 students, who were assigned to control and experimental groups. All 90 students completed the questionnaire, which was administered to both groups in order to obtain quantitative data on motivation. In addition, 10 students were purposively selected from the experimental group to participate in semi-structured interviews. This qualitative component was designed to capture students' experiences and perceptions of the strategy training, thereby enriching and validating the quantitative findings. The use of such a mixed-method approach, where questionnaires are complemented by in-depth interviews with a subset of participants from the experimental group, is consistent with previous studies in applied linguistics and education (Çınar, Erişen, & Çeliköz, 2022), and helps ensure both breadth and depth in understanding the effects of the intervention.

### **Data Collecting Tools**

Two instruments were employed to gather quantitative data for this study: a motivation questionnaire, and an interview.

#### **Motivation Questionnaire**

Students' writing motivation was measured using a questionnaire adapted from MacArthur, Philippakos, and Graham (2015). The instrument consists of 45 items rated on a five-point Likert scale (1 = never, 2 = occasionally, 3 = sometimes, 4 = often, 5 = almost always). The reliability of the scale was established with a high internal consistency (Cohen's alpha = .91). Such Likert-type instruments are widely recognized in educational research for effectively capturing the frequency and intensity of students' motivational behaviors and attitudes (Taherdoost, 2019).

#### **An Interview**

To complement the quantitative data, a semi-structured interview was conducted with 10 students from the experimental group. Semi-structured interviews were chosen because they allow for both consistencies across participants and flexibility to probe for deeper insights (Adams, 2015). An interview guide consisting of 15 questions was prepared, focusing on students' experiences with the writing strategy training, their perceptions of its impact on motivation, performance, and anxiety, as well as challenges encountered during the process. Each interview lasted approximately one hour, enabling participants to reflect in detail on their experiences while providing the researcher with rich qualitative data. Such interviews are widely recommended in educational research as they capture participants' voices and contextualize quantitative findings (Alsaawi, 2020).

### **Procedures for Gathering Data**

The process of data collection began with the administration of the questionnaire to both the control and experimental groups immediately after the completion of the writing strategy training. This ensured that the responses reflected the participants' most recent experiences and perceptions following the intervention. Once the quantitative data were gathered, an interview session was conducted with 10 purposively selected students

from the experimental group. By sequencing the data collection in this way, the study first captured broad trends across all participants and then complemented these findings with detailed qualitative insights from those who had directly undergone the training.

### **Techniques of Data Analysis**

Descriptive statistics, specifically the mean and standard deviation, were utilized to summarize and describe the distribution of students' scores on motivation across the pre-test and post-test phases. These measures provided essential insights into the central tendency and variability of the data allowing for a clearer interpretation of participants' psychological states before and after the intervention. In addition, paired samples t-tests and independent samples t-tests were applied to examine the effects of the strategy training intervention. The paired samples t-test was used to assess within-group differences by comparing participants' pre-test and post-test scores, thereby determining whether significant improvements occurred over time within each group. The independent samples t-test, on the other hand, was conducted to compare post-test scores between the experimental and control groups to identify any statistically significant differences attributable to the training intervention. The choice of these tests was appropriate for the study's quasi-experimental design, as it involved both related and independent group comparisons across multiple outcome variables. Furthermore, for the qualitative data, a thematic analysis was conducted using Microsoft Excel, in which the COUNTIF function was utilized to systematically code and quantifies the frequency of emerging themes, facilitating a simple yet effective integration of qualitative insights into the study's findings.

### **Applicability and Dependability of the Tools**

The reliability of the research instruments was assessed using Cronbach's alpha coefficient. The motivational questionnaire contained 45 items, distributed across four categories: self-efficacy (17 items), writing achievement goal orientations (13 items), writing beliefs (10 items), and affect (5 items). The overall internal consistency of this instrument was strong, with a Cronbach's alpha of 0.89 which indicate that both instruments possessed acceptable reliability for use, as alpha coefficients of 0.70 or above are generally regarded as satisfactory in educational and psychological research (Taber, 2018).

## ***Results and Discussion***

### **Results**

#### **Results on Paragraph Writing Motivation**

#### **Results of descriptive statistics mean and standard deviation on writing motivation**

To provide a general overview of students' writing motivation, descriptive statistics were computed using SPSS version 25. Specifically, the mean and standard deviation were calculated for each component of writing motivation like self-efficacy, achievement goal orientation, writing beliefs, and affective factors at both the pretest and posttest stages. The mean scores indicate the overall level of motivation in each area, while the standard deviations reflect the degree of variation among students' responses. These results help describe the central tendency and dispersion of students' motivation scores within and across the control and experimental groups before conducting further inferential analysis.

**Table 1: Mean and Standard Deviation Results at Pre and Post Treatment on Motivation Elements**

| Groups       | Elements                     | Pre-mean | SD   | Post-mean | SD   |
|--------------|------------------------------|----------|------|-----------|------|
| Control      | Self-efficacy                | 2.69     | 1    | 2.67      | 0.96 |
|              | Achievement goal orientation | 2.6      | 1    | 2.76      | 1    |
|              | Belief                       | 2.5      | 1    | 2.91      | 1    |
|              | Affective                    | 2.51     | 1    | 2.57      | 1    |
| Experimental | Self-efficacy                | 2.69     | 1    | 3.34      | 1.05 |
|              | Achievement Goal Orientation | 2.75     | 0.96 | 3.36      | 1.25 |
|              | Belief                       | 2.74     | 0.96 | 3.62      | 1.16 |
|              | Affective                    | 2.58     | 0.92 | 3.06      | 1.05 |

The table indicates that the control group exhibited minimal changes in their self-reported experiences across all four variables (Self-efficacy, Achievement Goal Orientation, writing belief, and affective) from pre- to post-treatment. For instance, the mean score for SE slightly decreased from 2.69 pre-treatment to 2.67 post-treatment, indicating very little changes. Similarly, the variables Achievement Goal Orientation, writing belief, and affective showed little change 2.6 to 2.76, 2.5 to 2.91, and 2.51 to 2.57 respectively. These small differences suggest that the control group's responses remained relatively stable over the course of the study. The consistency in standard deviations across pre- and post-measurements, all around 1, indicates that responses within this group were fairly homogeneous and that no significant natural variation occurred during the intervention period.

In contrast, the experimental group demonstrated significant improvements across all four variables following the treatment. The mean for self-efficacy increased from 2.69 pre-treatment to 3.34 post-treatment, reflecting a substantial positive change. Similar upward trends were observed for achievement goal orientation (from 2.75 to 3.36), writing beliefs (from 2.74 to 3.62), and affective (from 2.58 to 3.06). These increases suggest that the intervention effectively enhanced the participants' self-reported experiences. Additionally, the standard deviations in the experimental group were slightly higher after treatment, indicating increased variability in responses, which could be attributed to differing individual responses to the intervention. Nonetheless, the overall pattern clearly points to the intervention's impact in elevating scores across all variables.

When comparing the post-treatment results between the control and experimental groups, a notable difference emerges. The experimental group achieved significantly higher mean scores across all variables, highlighting the effectiveness of the intervention. While the control group's scores remained largely unchanged, the experimental group's considerable increases underscore that the observed improvements are likely attributable to the intervention rather than external factors or natural progression. This disparity supports the conclusion that the intervention had a meaningful and positive effect on participants' self-reported experiences, validating the initial hypothesis of the study.

### Results of Independent Samples T-Test on Writing Motivation

**Table 2: Writing Motivation Result Differences at Pre Training**

|                    | Control group |      |     | Experimental group |      |     | 95% CI: |      |     |                 |           |       |       |
|--------------------|---------------|------|-----|--------------------|------|-----|---------|------|-----|-----------------|-----------|-------|-------|
|                    | N             | Mean | SD  | N                  | Mean | SD  | t       | Df   | P   | mean difference | Cohen's d | Lower | Upper |
| Writing Motivation | 47            | 2.60 | .39 | 52                 | 2.74 | .35 | -1.82   | 92.7 | .07 | -.138           | 0.27      | -.28  | .012  |

The data presented in Table 2 indicates that students in the control group had a mean score of  $M = 2.60$ ,  $SD = .39$  which was slightly lower than the mean score of the experimental group at  $M = 2.74$ ,  $SD = .35$ . An independent samples t-test revealed no significant difference between the two groups,  $t (92.7) = -1.82$ ,  $p = .07$ . The mean difference was  $-.38$  (95% CI:  $-.28$  to  $.012$ ) with a small effect size (Cohen's  $d = 0.27$ ). Thus, the results suggest that the participants in both the control and experimental groups exhibited similar levels of motivation towards paragraph writing as no statistically significant difference was found prior to the beginning of the experiment.

**Table 3: Writing Motivation Result Differences at Post Training**

|                    | Control group |      |     | Experimental group |      |     |       |    |      |                 |           | 95% CI: |       |
|--------------------|---------------|------|-----|--------------------|------|-----|-------|----|------|-----------------|-----------|---------|-------|
|                    | N             | Mean | SD  | N                  | Mean | SD  | t     | Df | P    | mean difference | Cohen's d | Lower   | Upper |
| Writing motivation | 47            | 2.75 | .32 | 52                 | 3.39 | .36 | -9.19 | 97 | .000 | -.64            | 1.88      | -.77    | -.50  |

The table 3 above shows that the participants in experimental group ( $M = 3.39$ ,  $SD = .36$ ) scored higher than those in the control group ( $M = 2.75$ ,  $SD = .32$ ). The independent samples t-test reveals there was a significant difference between the two groups,  $t (97) = -9.19$ ,  $p = .000$ . The difference in the mean (mean difference =  $-.64$ , 95% CI:  $-.77$  to  $-.50$ ) and the effect size (Cohen's  $d = 1.88$ ) was large. Thus, the null hypothesis could be rejected and the alternative one was favored. This means that after the training, there was a statistically significant difference between the experiment and control groups in case of having motivation for paragraph writing.

#### Results of Paired Samples T-Test on Writing Motivation

**Table 4: Pre and Post Training Results of Writing Motivation for Control Group**

|               | Pre-training |      |     | Post- training |      |     |    |      |     | 95% CI: |       | Mean difference |
|---------------|--------------|------|-----|----------------|------|-----|----|------|-----|---------|-------|-----------------|
|               | N            | mean | SD  | N              | Mean | SD  | Df | t    | P   | lower   | upper |                 |
| Control Group | 47           | 2.60 | .39 | 47             | 2.75 | .32 | 46 | -1.7 | .09 | -.32    | .02   | -.14            |

The paired sample t-test results in Table 4 reveals that the mean score of writing motivation before treatment ( $M = 2.60$ ,  $SD = .39$ ) was statistically similar to the mean score after the usual teaching method was administered ( $M = 2.75$ ,  $SD = .32$ ) at a significance level of 0.05,  $t = -1.7$ ,  $df = 46$ ,  $n = 47$ , and a  $p$ -value of 0.09. The 95% confidence interval for the mean difference was  $-.32$  to  $0.2$ , and the ( $r = -.37$ ) suggested a moderate negative correlation between pre- and post-measures. In terms of the actual difference, the average writing motivation score was approximately  $-.14$  points higher after the usual method was administered compared to before treatment. Particularly, this difference was not statistically significant. Therefore, the pre- and post-measures of the control group did not reveal a significant difference in writing motivation.

**Table 5: Pre and Post Training Results of Writing Motivation for Experimental Group**

|                    | Pre-test |      |     | Post- test |      |     |    |       |      | 95% CI: |       | Mean difference |
|--------------------|----------|------|-----|------------|------|-----|----|-------|------|---------|-------|-----------------|
|                    | N        | Mean | SD  | N          | Mean | SD  | Df | t     | P    | lower   | upper |                 |
| Experimental group | 52       | 2.74 | .35 | 52         | 3.39 | .36 | 51 | -10.8 | .000 | -.77    | -0.53 | -0.65           |

The results of the paired samples t-test presented in Table 5 indicate a significant difference in writing motivation scores for the experimental group. The mean score of writing motivation before treatment ( $M = 2.74$ ,  $SD = .35$ ) was significantly lower than the mean score after treatment ( $M = 3.39$ ,  $SD = .36$ ) at the 0.05 level of significance. The t-statistic was  $-10.8$ ,  $df = 51$ ,  $n = 52$ , and the  $p = .000$ . The 95% confidence interval for the mean difference ranged from  $-.77$  to  $-0.53$  and the correlation ( $r = 0.27$ ) suggests a moderate positive correlation. Therefore, the mean scores of writing motivation increased by  $.65$  point following the treatment. This statistically significant difference between the pre- and post-treatment measures demonstrates that the treatment had a positive impact on the writing motivation of the experimental group.

### Results of Independent Samples T-Test on Components of Writing Motivation

**Table 6: Writing Self-Efficacy Result Differences at Pre- Training**

|                       | Control Group |      |     | Experimental Group |      |     |     |    |     |                 |           | 95% CI: |       |
|-----------------------|---------------|------|-----|--------------------|------|-----|-----|----|-----|-----------------|-----------|---------|-------|
|                       | N             | Mean | SD  | N                  | Mean | SD  | t   | Df | P   | Mean Difference | Cohen's d | Lower   | Upper |
| Writing Self-Efficacy | 47            | 2.69 | .43 | 52                 |      | .42 | 1.1 | 97 | .26 | -.09            | 0.2       |         | .07   |

The table 6 above shows that an independent samples t-test was conducted to compare writing self-efficacy in the control group ( $M = 2.69$ ,  $SD = .43$ ) and the experimental group ( $M = 2.79$ ,  $SD = .42$ ). There was no significant difference in writing self-efficacy between the two groups,  $t(97) = 1.11$ ,  $p = .26$ . The mean difference in writing self-efficacy was  $.09$  with a 95% confidence interval ranging from  $-.26$  to  $.07$ . The effect size, as measured by Cohen's d was  $0.2$  indicating a small effect.

**Table7: Writing Self-Efficacy Result Differences at Post Training**

|                       | Control Group |      |     | Experimental Group |      |     |      |      |      |                 |           | 95% CI: |       |
|-----------------------|---------------|------|-----|--------------------|------|-----|------|------|------|-----------------|-----------|---------|-------|
|                       | N             | Mean | SD  | N                  | Mean | SD  | t    | Df   | P    | Mean Difference | Cohen's d | Lower   | Upper |
| Writing Self-Efficacy | 47            | 2.67 | .43 | 52                 | 3.34 | .46 | -7.2 | 96.8 | .000 | .66             | 1.5       | -.84    | -.48  |

The table 7 above shows that an independent samples t-test was conducted to compare writing self-efficacy between the control group ( $M = 2.67$ ,  $SD = .43$ ) and the experimental group ( $M = 3.34$ ,  $SD = .46$ ). The results indicated a significant difference in writing self-efficacy between the two groups,  $t(96.89) = -7.23$ ,  $p < .005$ . The experimental group demonstrated higher writing self-efficacy than the control group, with a mean difference of  $.66$  (95% CI:  $[-.84, -.48]$ ). The effect size, as measured by Cohen's d ( $d = 1.5$ ) was substantial indicating a large effect.

### Results of Independent Samples T-Test on Achievement Goal Orientation

**Table 8: Writing Achievement Goal Orientation Result Differences at Pre- Training**

|                              | Control Group |      |     | Experimental Group |      |     |      |      |     |                 |           | 95% CI: |       |
|------------------------------|---------------|------|-----|--------------------|------|-----|------|------|-----|-----------------|-----------|---------|-------|
|                              | N             | Mean | SD  | N                  | Mean | SD  | t    | Df   | P   | Mean Difference | Cohen's d | Lower   | Upper |
| Achievement Goal Orientation | 47            | 2.6  | .57 | 52                 | 2    | .45 | -1.3 | 87.6 | .17 | -.14            | 0.2       |         | .06   |

The table 8 above shows that an independent samples t-test was conducted to compare writing achievement goal orientation between the control group ( $M = 2.6$ ,  $SD = .57$ ) and the experimental group ( $M = 2$ ,  $SD = .45$ ).

2.75, SD = .45). The results indicated that there was no significant difference in writing achievement goal orientation between the two groups,  $t(87.7) = -1.37$ ,  $p = .17$ . The mean difference in writing achievement goal orientation was -.14 (95% CI: [-.35, .06]), suggesting that the experimental group scored higher on average than the control group, but this difference was not statistically significant. The effect size as measured by Cohen's  $d$  (0.2) was small.

**Table 9: Writing Achievement Goal Orientation Result Differences at Post- Training**

|                                      | Control Group |      |     | Experimental Group |      |     |      |       |      |                 |           | 95% CI: |       |
|--------------------------------------|---------------|------|-----|--------------------|------|-----|------|-------|------|-----------------|-----------|---------|-------|
|                                      | N             | Mean | SD  | N                  | Mean | SD  | T    | Df    | P    | Mean Difference | Cohen's d | Lower   | Upper |
| Writing Achievement Goal Orientation | 47            | 2.7  | .39 | 52                 | 3.36 | .48 | -6.7 | 95. 7 | .000 | -.59            | 1.53      |         | -.42  |

An independent samples t-test was conducted to compare writing achievement goal orientation between the control group ( $M = 2.7$ ,  $SD = .39$ ) and the experimental group ( $M = 3.36$ ,  $SD = .48$ ). The results indicated a significant difference in writing achievement goal orientation between the two groups,  $t(95. 7) = -6.7$ ,  $p < .005$ . The experimental group demonstrated higher writing achievement goal orientation than the control group, with a mean difference of -.59 (95% CI: [-.77, -.42]). The effect size as measured by Cohen's  $d$  was 1.5, indicating a large effect.

#### Results of Independent Samples T-Test on Belief

**Table10: Writing Belief Result Differences at Pre – Training**

|                | Control Group |      |     | Experimental Group |      |     |      |    |      |                 |           | 95% CI: |       |
|----------------|---------------|------|-----|--------------------|------|-----|------|----|------|-----------------|-----------|---------|-------|
|                | N             | Mean | SD  | N                  | Mean | SD  | t    | Df | P    | Mean Difference | Cohen's d | Lower   | Upper |
| Writing Belief | 47            | 2.5  | .47 | 52                 | 2.7  | .44 | -2.6 | 94 | .010 | -.24            | 0.5       | -.43    | -.06  |

An independent samples t-test was conducted to compare writing belief between the control group ( $M = 2.5$ ,  $SD = 0.47$ ) and the experimental group ( $M = 2.74$ ,  $SD = .44$ ). The results revealed a statistically significant difference in writing belief between the two groups,  $t(94) = -2.645$ ,  $p=.010$ . The experimental group exhibited a higher writing belief compared to the control group, with a mean difference of -.24 (95% CI: [-.43, -.06]). The effect size, as measured by Cohen's  $d=0.5$ , indicates a medium effect. This suggests little difference in writing belief between the groups in that the difference happened by chance.

**Table 11: Writing Belief Result Differences at Post – Training**

|                | Control Group |      |     | Experimental Group |      |     |      |    | 95% CI: |                 |           |       |       |
|----------------|---------------|------|-----|--------------------|------|-----|------|----|---------|-----------------|-----------|-------|-------|
|                | N             | Mean | SD  | N                  | Mean | SD  | T    | Df | P       | Mean Difference | Cohen's d | Lower | Upper |
| Writing Belief | 47            | 2.9  | .39 | 52                 | 3.6  | .54 | -7.5 | 93 | .000    | -.71            | 1.4       | -.90  | -.52  |

An independent samples t-test was conducted to compare writing belief between the control group ( $M = 2.9$ ,  $SD = .39$ ) and the experimental group ( $M = 3.6$ ,  $SD = .54$ ). The analysis revealed a statistically significant difference in writing belief between the two groups,  $t(93) = -7.5$ ,  $p < .005$ . The experimental group demonstrated significantly higher writing belief compared to the control group with a mean difference of -.71 (95% CI: [-.90, -.52]). This indicates a substantial effect of the experimental condition on writing belief. The effect size as measured by Cohen's  $d = 1.4$  was large.

## Results of Independent Samples T-Test on Affective

**Table 12: Writing Affective Result Differences at Pre – Training**

|           | Control Group |      |     | Experimental Group |      |     | T    | Df | P   | Mean Difference | Cohen's d | 95% CI: |       |
|-----------|---------------|------|-----|--------------------|------|-----|------|----|-----|-----------------|-----------|---------|-------|
|           | N             | Mean | SD  | N                  | Mean | SD  |      |    |     |                 |           | Lower   | Upper |
| Affective | 47            | 2.49 | .48 | 52                 | 2.58 | .51 | -.86 | 96 | .38 | -.08            | 0.18      | .28     | .11   |

An independent samples t-test was conducted to compare writing belief between the control group ( $M = 2.49$ ,  $SD = .48$ ) and the experimental group ( $M = 2.58$ ,  $SD = .51$ ). The results indicated that there was no statistically significant difference in affective between the two groups,  $t (96.8) = -.86$ ,  $p = .38$ . The mean difference in affective was  $-.08$  (95% CI: [-.28, .11]), suggesting that the experimental group had a slightly higher writing belief than the control group, but this difference was not statistically significant. The effect size, as measured by Cohen's d (0.18) implies a small effect.

**Table 13: Writing Affective Result Differences at Post – training**

|           | Control Group |      |     | Experimental Group |      |     | T     | Df    | P    | Mean Difference | Cohen's d | 95% CI: |       |
|-----------|---------------|------|-----|--------------------|------|-----|-------|-------|------|-----------------|-----------|---------|-------|
|           | N             | Mean | SD  | N                  | Mean | SD  |       |       |      |                 |           | Lower   | Upper |
| Affective | 47            | 2.5  | .49 | 52                 | 3.0  | .41 | -5.27 | 89.44 | .000 | -.48            | 1.25      | -.67    | -.30  |

An independent samples t-test was conducted to compare writing belief between the control group ( $M = 2.57$ ,  $SD = .49$ ) and the experimental group ( $M = 3.06$ ,  $SD = .41$ ). The results indicated a statistically significant difference in affective between the two groups,  $t (89.44) = -5.27$ ,  $p < .005$ . The experimental group demonstrated higher affective compared to the control group with a mean difference of  $-.48$  (95% CI: [-.67, -.30]). This suggests that the experimental intervention had a meaningful positive effect on affective. The effect size as measured by Cohen's d = (1.25) was large which mean the significant difference indicates a large effect.

## Thematic Analysis of Student Interviews Data on Writing Strategy Training

Thematic analysis of the semi-structured interviews revealed ten salient themes regarding students' experiences with the writing strategy training. These themes, along with their frequency of occurrence and representative key insights, are presented in Table 14.

**Table 14 Analysis of Interviews Using COUNTIF Function**

| Theme                              | *Frequency | Representative Key Insights   |
|------------------------------------|------------|---|
| Writing motivation                 | 10         | I feel more encouraged to write. now I know how to write              |
| Enhanced self-confidence           | 7          | Most felt more confident, but some still struggled                    |
| Attitude towards writing           | 7          | Positive attitude developed towards writing                           |
| Grammar and mechanics              | 9          | There were ongoing challenges   |
| Suggestion for improvements        | 9          | Desires for more guided practice                                      |
| Classroom experience               | 9          | Appreciation for interactive lessons, but some requested more variety |
| Interest and challenges in writing | 6          | Enjoyed brainstorming, but struggle with paragraph organization       |
| Difficulty of writing              | 10         | As writing cognitively demanding                                      |
| Self-assessment of skill           | 9          | Aware of progress and limitations                                     |
| Fear of mistakes                   | 6          | It was reduced some what  |
| Feedback on training               | 10         | Training was highly valued for improving skills and strategies        |
| Vocabulary development             | 10         | Significant improvements in vocabulary use                            |

\*Frequency refers to the number of participants out of 10 who mentioned the theme

The interview findings revealed that writing strategy training substantially enhanced students' motivation by strengthening the key elements of self-efficacy, achievement goal orientation, beliefs, and

affective responses. The qualitative data substantiate the quantitative results, illustrating how the strategy training catalyzed positive change. Participants consistently reported that structured strategies like brainstorming and planning reduced initial anxiety and provided a clearer pathway (Theme 1, 2), which enhanced their self-efficacy and motivation. This newfound confidence fostered more constructive beliefs about writing as an improbable skill rather than an innate talent (Theme 3).

Furthermore, students highlighted specific cognitive benefits, most notably significant gains in vocabulary (Theme 4). They expressed a strong appreciation for the interactive, guided practice (Theme 5), which aligns with the observed shift towards mastery-oriented goals. Despite these gains, students were metacognitive aware of their remaining challenges, consistently identifying grammar and paragraph organization as persistent difficulties (Themes 6, 10). This awareness itself (Theme 8), coupled with a reduced fear of mistakes (Theme 9), points to a more mature and resilient approach to writing, acknowledging the process as cognitively demanding (Theme 7) yet manageable.

## **Discussion**

### **Effect of Strategy Training on Students' Writing Self-Efficacy**

The quantitative results showed a large improvement in students' writing self-efficacy, indicating that strategy training enhanced their confidence to manage writing tasks. This finding is consistent with research showing that explicit instruction in planning and monitoring boosts students' mastery experiences and strengthens competence beliefs (Han, 2024; Fernandez & Guilbert, 2024). The interview data supported this result, as many students reported feeling "more confident to write paragraphs" and noted that brainstorming and vocabulary-building strategies helped them overcome initial hesitation. Such reflections illustrate how strategy training created repeated success experiences, which are central to developing self-efficacy.

### **Effect of Strategy Training on Achievement Goal Orientation**

The intervention also produced significant gains in students' achievement goal orientations, particularly mastery goals. Students shifted from focusing primarily on completing assignments for marks to expressing a desire to "improve step by step" and "write better than before." This aligns with evidence that strategy-based teaching fosters mastery-oriented engagement by emphasizing process over product (Rahimi, 2024; Schunk et al., 2022). The interview accounts further illustrate this shift, as learners valued interactive lessons and structured practice, which redirected their goals toward learning and growth rather than avoidance or external validation.

### **Effect of Strategy Training on Students' Beliefs About Writing**

Students' writing beliefs improved substantially after the intervention. This change resonates with studies showing that strategy-based instruction helps learners view writing as a skill that can be developed through effort (Teng & Zhang, 2023). Interview responses reflected this belief transformation: several students noted that "writing is not too difficult if we practice with strategies," and others recognized that their ability improved in vocabulary and idea generation. These accounts confirm that the training reshaped students' beliefs from fixed to incremental, making them more receptive to feedback and practice.

### **Effect of Strategy Training on Affective Responses**

The study also found significant gains in students' affective engagement with writing. This finding is consistent with Wang and Teng (2024), who highlight that strategy training enhances positive affect by reducing task ambiguity. Interview evidence reinforced this improvement, as students reported enjoying brainstorming sessions and interactive tasks, even while acknowledging ongoing challenges in grammar and organization. Importantly, many described a reduction in their fear of making mistakes, reflecting more positive emotional engagement with writing activities.

## Interrelationships among Motivational Elements

The parallel improvements across self-efficacy, goal orientation, beliefs, and affect suggest a mutually reinforcing motivational system, as argued by recent integrative studies (Bal, 2024; Zhang & Zhang, 2024). The interviews confirmed this dynamic: students who gained confidence also expressed stronger mastery goals, reported new beliefs about writing as learnable, and described greater enjoyment of tasks. Together, these findings show that writing strategy training not only strengthens each motivational element individually but also activates a motivational cycle that sustains writing engagement.

## Implications

The findings of this study carry several important implications for secondary education, particularly in contexts where students face high-stakes writing demands. First, for teachers, the results highlight the value of systematically embedding strategy-based instruction—such as planning, goal-setting, monitoring, and self-evaluation into daily writing lessons. By doing this, teachers can strengthen students' self-efficacy, orient them toward mastery goals, and foster more positive beliefs and emotions about writing. Second, for curriculum developers, the study underscores the need to integrate motivational elements autonomy support, mastery-focused objectives, and reflective practices into writing curricula rather than relying solely on product-based approaches. Third, for school administrators and policymakers, the findings suggest that professional development programs should train teachers to use evidence-based strategy training methods as part of writing instruction. Finally, for future researchers, the strong motivational gains observed call for longitudinal studies to examine the sustainability of these effects, as well as replication across diverse school settings to strengthen generalizability. Overall, the study provides actionable evidence that writing strategy training is not only an instructional tool but also a motivational intervention with the potential to transform students' engagement and success in academic writing.

## Conclusion

This study set out to examine the impact of writing strategy training on Grade 11 students' writing motivation, focusing on self-efficacy, achievement goal orientation, writing beliefs, and affective responses. The results demonstrated that students who received explicit strategy instruction made statistically significant and practically meaningful gains across all motivational dimensions, while the control group showed little change. These findings confirm that writing strategy training is not only an instructional tool for improving skills but also a motivational intervention that enhances students' confidence, goal orientation, and positive attitudes toward writing. The interrelated improvements observed suggest that strategy training strengthens a motivational cycle in which self-efficacy, mastery goals, constructive beliefs, and positive affect reinforce one another. In practical terms, this study provides strong evidence that integrating strategy-based instruction into secondary school classrooms can empower students to approach writing with greater competence, persistence, and enthusiasm. Future research should extend these findings by investigating the long-term sustainability of motivational gains and testing the effectiveness of strategy training across broader educational contexts. Ultimately, the evidence presented here affirms that explicit strategy training can play a transformative role in igniting motivation and sustaining engagement in adolescent writing classrooms.

## References

Adams, W. C. (2015). Conducting semi-structured interviews. In K. E. Newcomer, H. P. Hatry, & J. S. Wholey (Eds.), *Handbook of practical program evaluation* (pp. 492–505). Jossey-Bass.

Alsaawi, A. (2020). The benefits of using interviews in applied linguistics research. *International Journal of English and Education*, 9(3), 200–210.

Bal, M. (2024). Examining the mediating role of metacognitive writing strategies in the relationship between self-regulated writing skills and writing achievement. *British Educational Research Journal*. <https://doi.org/10.1002/berj.4212>

Çınar, A., Erişen, Y., & Çeliköz, M. (2022). A mixed-method research on the effectiveness of using qualification elements in an online English course. *International Journal of Educational Research Review*, 7(4), 280–291. <https://doi.org/10.24331/ijere.1140960>

Dinsa, A. D., & Asgedom, A. (2023). English language writing strategies among Ethiopian EFL students: A systematic review. *Cogent Education*, 10(1), 2256207. <https://doi.org/10.1080/2331186X.2023.2256207>

Fernandez, J., & Guilbert, J. (2024). Self-regulated strategy development's effectiveness: Underlying cognitive and metacognitive mechanisms. *Metacognition and Learning*, 19, 1091–1135. <https://doi.org/10.1007/s11409-024-09398-7>

Han, L. (2024). Metacognitive writing strategy instruction in the EFL context: Focus on writing performance and motivation. *SAGE Open*, 14(1), 1–14. <https://doi.org/10.1177/21582440241257081>

Hiluf, B. T., Khairani, A. Z., & Meutia, I. (2024). The effect of emotional intelligence on Ethiopian high school students' writing performance. *Cogent Education*, 11(1), 2369970. <https://doi.org/10.1080/2331186X.2024.2369970>

Khosravi, R., Dastgoshadeh, A., & Jalilzadeh, K. (2023). Writing metacognitive strategy-based instruction through flipped classroom: An investigation of writing performance and self-efficacy. *Smart Learning Environments*, 10(48), 1–22. <https://doi.org/10.1186/s40561-023-00264-8>

MacArthur, C. A., Philippakos, Z. A., & Graham, S. (2015). Writing development and instruction in adolescence. Springer. <https://doi.org/10.1007/978-1-4939-0401-6>

Rahimi, M. (2024). Effects of integrating motivational instructional strategies into process-genre writing approach on students' engagement and argumentative writing. *System*, 121, 103261. <https://doi.org/10.1016/j.system.2024.103261>

Schunk, D. H., Pintrich, P. R., & Meece, J. L. (2022). Motivation in education: Theory, research, and practice (5th ed.). Routledge. <https://doi.org/10.4324/9781003143080>

Taber, K. S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education*, 48(6), 1273–1296. <https://doi.org/10.1007/s11165-016-9602-2>

Taherdoost, H. (2019). What is the best response scale for survey and questionnaire design? *Journal of Applied Research in Higher Education*, 11(4), 741–749. <https://doi.org/10.1108/JARHE-03-2017-0068>

Teng, L. S., & Zhang, L. J. (2023). Fostering self-regulated learning through strategy-based instruction: Implications for motivation and achievement. *Educational Psychology*, 43(2), 167–182. <https://doi.org/10.1080/01443410.2022.2126650>

Wang, C., & Teng, L. S. (2024). Metacognitive awareness, self-efficacy, and academic resilience in secondary classrooms. *Learning and Instruction*, 87, 101783. <https://doi.org/10.1016/j.learninstruc.2023.101783>

Zhang, H., & Zhang, L. J. (2024). Profiling self-efficacy and self-regulated learning strategy use in writing: Relations to writing achievement. *Assessing Writing*, 62, 100788. <https://doi.org/10.1016/j.asw.2024.100788>

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