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**THE USE OF META-COGNITIVE SELF-ASSESSMENT STRATEGY FOR
DEVELOPING WRITING SKILLS AMONG STUDENTS**

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KEYWORDS	ABSTRACT
<p>Metacognitive Strategy, Self-Assessment, Writing Skills, Girls High School</p>	<p>The role of meta-cognition is significant in teaching and learning process, such as the reading, writing development, problem solving, social cognition, self-control, attention, communication & in the development of personality. Thus, merely awareness about the learning procedure would not assurance of good instruction, on other hand, lacking it, teaching is just a trial and error as well as monotonous practice and most of the teachers can be destructive to their learners. This research conducted to explore the metacognitive self-assessment strategy effect on Writing Skills of 7th grade students in context of Pakistan in public school of Punjab. The experimental design was adopted in this study which involves two groups (experimental and control groups) pretest and posttest design. The sample consisted of 60 students of a public girls' high school. Writing Skills test was developed by researcher for data collection, mean, standard deviation and independent t-test were applied for data analysis. Results indicated that those students given the treatment attained higher scores compared to control. So, it is suggested that teachers should use metacognitive self-assessment strategy for teaching of writing skills in classroom.</p>
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INTRODUCTION

The communication has become increasingly significant across cultures and countries. Language serves as primary means of communication for human interaction. Teaching and learning English language can be a challenging endeavor. A teacher's function is to promote education, serve as a guide, and foster a love for lifelong learning. Instead of focusing on memorization, contemporary education aims to cultivate the critical thinking skills in students (Noor & Siddique, 2023). So, the

instructors need to educate pupils how to obtain and analyze the information for themselves, rather than just transmitting knowledge. This implies the adoption of instructional strategies that promote teamwork, reasoning & reflective practices (Noor & Siddique, 2023). The way in which we obtain and process the information has undergone a substantial transformation, which has resulted in the development of new skills and strategies that individuals utilize throughout their lives (Noor & Habib, 2023). Teachers and their teaching methods play a crucial role in determining students' academic achievements (Noor & Habib, 2023). The methods used by instructors in the classroom can either motivate or demotivate students to learn, and proficiency in four linguistic competencies, listening, speaking, reading & writing that are effective and vital for attaining academic success at all levels of education.

Most Pakistani students have not achieved the requisite level of English language proficiency, as it is a mandatory subject in national curriculum for grades I to VII. As per the [National Educational Policy \(1998-2010\)](#), students are required to complete primary education and attain fluency in the reading and writing English ([Government of Pakistan, 1998](#)). Despite these constraints, they are unable to do so. To ensure that students receive an excellent education, educators must adapt their teaching methods to these changes. This problem has been particularly prominent in public schools, where English is only allocated as a required subject and not as the medium of instruction. Many public schools have large class sizes, which can make it challenging for the teachers to provide individualized attention to each student. Unfortunately, students from both rural and urban areas often struggle with this subject and are unable to achieve academic success. After shifting from a school in Pakistan to a higher level, the medium of instruction is English, which presents challenges for many students who struggle with language learning skills. In formal education system, reading and writing are particularly important, while oral language serves as the foundation for formal learning ([Hartman, 2001](#)). Significance of meta-cognitive teaching strategies in educational system cannot be disputed.

These strategies, which involve both explicit and implicit instruction, are essential for both teachers and learners ([Hartman, 2001](#)). Among the various factors that contribute to a student's success, the teaching strategy is considered most influential. In Pakistan, this has been highlighted in research by [Farooq, Hassan and Wahid \(2012\)](#). The writing skills of students in Pakistan are unfortunately insufficient and substandard. Despite a substantial increase in English language users from 2% in 1961 to 49% in 2003, issues with the language persist, particularly in written communication ([Dar & Khan, 2015](#)). These problems are often caused by a lack of proficiency in the syntax, consistency, concept expansion, subject content selection, mechanism, and organization, and limited vocabulary knowledge, including the incorrect use of terms and concepts. It is believed that inadequate writing skills can be attributed to two factors: the teacher and the student. In light of this, the teachers can utilize meta-cognitive teaching strategies that are beneficial for fostering desired effective writing abilities at the elementary school level. Metacognitive strategies are methods that enable learners to exercise substantial control over their learning process. Both educators and students make use of these approaches to attain their objectives. These techniques facilitate learners in managing their cognitive activities.

The cognition refers to the capacity for understanding and being aware of something, while meta-cognition encompasses being conscious of one's own cognitive processes and methods of learning (Bayne, 2019). Also, acquiring knowledge and comprehension necessitates cognition (Senemolu, 2005). On other hand, meta-cognition is vital for grasping how tasks will be performed. Cognition is indispensable for completing tasks (Schraw, 1994). According to research, there are seven types of Meta-Cognitive teaching strategies, including modeling, self-questioning, scaffolding, prompts for reflection, Think-aloud, self-assessment, and graphic organizers. Metacognitive self-assessment involves reflecting on one's own thinking and learning process. In the context of learning writing skills, this involves regularly evaluating one's writing strengths and weaknesses, setting goals for improvement, and tracking progress over time. This strategy can help learners become more aware of own writing abilities and identify areas that need further development. By regularly engaging in metacognitive self-assessment, learners can develop a more nuanced understanding of writing skills and make more informed decisions about how to improve. According to Graham et al. (2005) writing is a challenging and time-consuming ability to acquire. It involves capacity to express ideas clearly and concisely.

This becomes more difficult when writing in a foreign language, as numerous elements need to be coordinated and balanced, like context, structure, grammar, punctuation, purpose, audience, and language. Providing writing skills is demanding task that requires assistance. It might be suggested that various approaches, such as think-aloud, self-questioning, instructor modeling, new activities, and collaborative learning, could enhance students' writing abilities. Thus, students who employ metacognitive strategies are believed to complete their work and maintain focus. In Pakistan, some researcher studies on reading comprehension using metacognitive strategies by Noor and Siddique (2023); Noor and Habib (2023) but there is no research examining the effects of meta-cognitive teaching strategies upon students' writing skills at 7th grade. Thus, this study aimed to investigate whether self-assessment strategy is effective in Pakistani classrooms. Specifically, the study sought to compare the impact of traditional and metacognitive teaching strategy on students' reading and writing skills, and to gather empirical evidence for effectiveness of these strategies in the Pakistani context. The study's objective was to determine effect of metacognitive self-assessment on students' writing Skills at 7th grade level, with hypothesis that there is no significant difference in writing skills between students taught over meta-cognitive teaching strategies & those taught by using the conventional method.

LITERATURE REVIEW

Teachers may play a significant role in the formation of positive behaviors in students that foster an environment and encourages them to engage in a variety of activities that enhance personal skills, intrinsic motivation, fun, self-awareness, learning and transformation (Choi, Lee, Yoo & Ko, 2019). The efficacy of writing instruction is determined by four primary factors that have been highlighted by 2 recent meta-analyses. These factors cover education, setting goals, providing encouragement, offering feedback, and utilizing various techniques throughout the writing process (Duffy, Miller, Parson & Meloth, 2009). Meta-cognition and teaching of methods are intrinsically linked, making it imperative for each student to acquire the necessary skills for effective academic writing and

lifelong learning. This research was carried out through questionnaires and an examination of the relevant textual materials. The findings revealed that top-performing students displayed a more profound understanding of task at hand and exhibited a greater comprehension of their respective approaches (Duffy et al., 2009). Meta-cognition is known to have significant influence on students' writing and thinking capabilities, as indicated by researchers such as Cer (2019), Lu (2006), and Yanyan (2010).

These studies have confirmed that by becoming conscious of their writing strategies, recognizing efficient techniques & making necessary adjustments, students can enhance their writing abilities. In a prior study, 16 students aged between 10 and 12 were requested to respond to meta-cognitive questions three times while completing writing tasks. Participants were instructed to write a lost-and-found statement about their childhood teddy bear, including details about objectives, plans, and the reasoning behind their decisions. After completing task, they were asked to express their satisfaction, provide reasons for their satisfaction, and identify the strategies they used. The study's outcomes revealed that these meta-cognitive activities helped individuals become more aware of the writing process, improved writing, planning, and revising skills, and enabled learners to reflect on development over meta-cognitive contemplations. These guided meditations inspire students to be specific and persistent in their development, while also highlighting the benefits of the teaching strategies used and contributions of their peers (Cer, 2019; Lu, 2006; Yanyan, 2010). Cer conducted a research study in (2019) on 44 secondary school pupils to assess the impact of metacognition on their writing skills.

In this research, the intervention group was provided with metacognitive writing training, while the control group did not receive any such training. The outcomes of the research revealed that the students in the metacognition group demonstrated improved writing skills, including contextual writing, tone, grammar, and structural expression. Moreover, the experimental group learned how to apply relevant knowledge and techniques to their writing. In light of these results, Cer suggested that further research was required to more comprehensively investigate the effect of metacognition on writing abilities (Cer, 2019). The researchers have thoroughly investigated the significance of Meta-Cognitive Teaching Strategies and writing abilities. Oscarson (2009) conducted a study on 102 upper secondary level students and two instructors in Sweden participated in examining Self-Assessment (SA) of writing in the English language. Oscarson gathered data through the use of the questionnaire, written assignments, and interviews. The results indicated that the participants were capable of evaluating their English as a Foreign Language (EFL) writing both collectively as well as individually, and demonstrated enhanced proficiency in assessing their overall EFL writing skills (Oscarson, 2009).

A study carried out by Aly (2005) examined the influence of self-evaluation on the essay writing of university-level engineering students. The research involved 40 participants and two lecturers, with essay writing and self-assessment (SA) forms serving as the data collection methods. The results indicated significant improvements in students' writing in terms of language, structure, and topic. Prior research on the benefits of SA has predominantly utilized qualitative methods and focused on describing real-classroom experiences. However, recent academic studies on incorporating the SA

strategy in writing, mainly in English, have increased in number in their academic achievements (Aly, 2005). A study was conducted by Cömert and Kutlu (2018) to examine the impact of self-assessment on English language writing achievement. The investigation took place over an eight-week period at university with a sample of 30 second-semester students. An experimental research design was employed, with data collected through interviews, a scoring rubric, and an English writing task. The findings indicated that writing courses that incorporate self-evaluation practices are more effective in enhancing writing skills compared to conventional writing lessons (Cömert & Kutlu, 2018).

A research project undertaken by Khoda and Khoda (2012) highlighted the influence of SA on the writing proficiency and autonomy of students at university level in Iran in the year 2010. The study comprised 59 Persian students, who were divided into two groups. The students in the experimental group completed portfolios and self-evaluations. The results of the study showed that both groups had comparable academic performance at the start of research, but the students in experimental group demonstrated significantly enhanced writing skills and autonomy following the application of the SA intervention (Khoda & Khoda, 2012). In this connection, a research study exploring the impact of self-assessment on the written language skills of Iranian female students learning English as a foreign language (EFL) was conducted by Heidarian (2016). The study involved 48 participants, who were divided into two separate groups. The study evaluated the students' writing abilities over the examination of test results and self-reported questionnaires. Thus, the findings of this research suggest that the self-assessment is a valuable and effective method of evaluation and instruction (Heidarian, 2016). Honesta (2013) executed an investigation on intermediate English as a Second Language (ESL) learners at the university level, concentrating upon self-assessment in the second language writing.

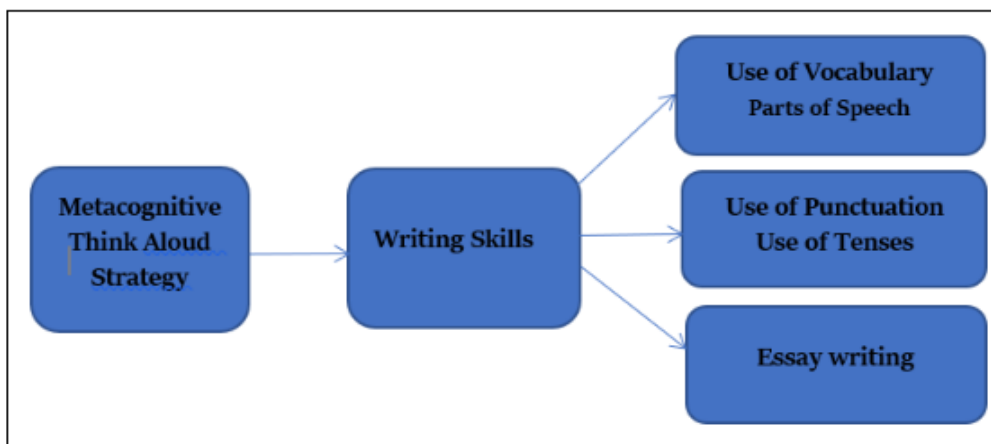
This study encompassed 100 ESL university students at the intermediate stage, who accomplished writing tasks and a self-evaluation form, and were interviewed post-study. The outcomes disclosed that the utilization of self-evaluation as approach to promote independent learning considerably enhanced the students' essays (Honesta, 2013). Javaherbakhsh (2010) conducted an investigation into the influence of self-assessment (SA) on the writing proficiency of Iranian students in English. The researcher divided the participants into two groups and selected 73 students from language schools with advanced coursework as sample. The study employed a rating matrix and two writing assessments as instruments. An experimental research design was employed, with data collected through interviews, a scoring rubric, and an English writing task. Consequently, findings indicated that furnishing experimental group with self-assessment procedures led to a marked improvement in their writing ability (Javaherbakhsh, 2010). Wang (2007) carried out research upon the process and consequences of incorporating an affected test and self-appraisal in English writing for ESL non-English main master's students in China. The sample for the research comprised of 24 students who applied self-evaluation to their writing. Data was collected through writing exercises, surveys, as well as interviews.

The study found that while self-evaluation tests were effective in enhancing students' final writing, self-evaluation was more beneficial throughout revision process compared to during composing a

timed essay. Moreover, majority of students had a positive attitude towards self-assessment (Wang, 2007). Brown's (2005) study investigated the role of annotated samples in autonomous language learning program for self-evaluation of writing. The research involved eight Chinese participants from diverse linguistic backgrounds. The data was collected through writing assignments, script explanations, and a survey. Researchers have thoroughly investigated the significance of Meta-Cognitive Teaching Strategies and writing abilities. The study revealed that while some students were able to recognize and correct their own mistakes, others became dejected when they realized they were unable to do so. According to the researcher, the procedure was generally effective and beneficial and self-assessment strategy improved writing skills (Brown, 2005). The implementation of the self-assessment strategy in the EFL grammar classroom was also explored by Moqbel (2018). The primary goal of this study was to uncover the benefits of self-assessment in language teaching, learning, and training.

Moreover, Moqbel's research emphasized importance of instructing EFL students in self-assessment, providing them with explicit guidance, selecting suitable self-assessment activities and strategies (Moqbel, 2018). The metacognitive teaching strategies are widely recognized as crucial for fostering learner awareness of their own learning processes, as per the consensus among the academics and educators. However, there is a scarcity of research in Pakistan to back this up. Hence, it is imperative to undertake studies that delve into how teachers can cultivate metacognitive abilities in their students and provide support to teachers in imparting education using metacognitive techniques (Buffel, Peteer, Reina, Kindekens & Lombaerts, 2014). After completing the task, they were asked to express their satisfaction, provide reasons for their satisfaction, and identify the strategies they used. The metacognitive think-aloud approach is independent variable according to conceptual framework in Figure 1 above. The dependent variable is reading comprehension which is consisted on more factors which are related to first is determining title and main idea second is understanding difficult vocabulary and referential, making inferences and drawing conclusion from paragraphs. The goal of this study was to determine how the think-aloud technique affects students' reading comprehension skills.

Figure 1 Conceptual Framework

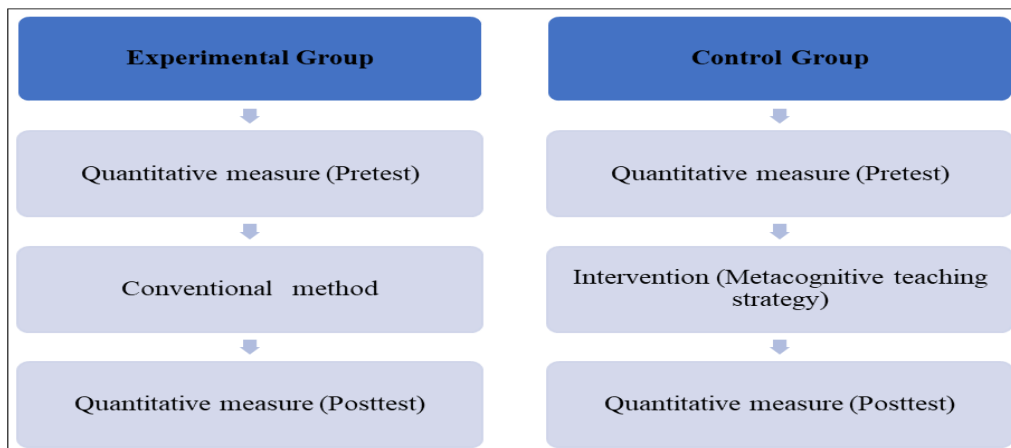


RESEARCH METHODOLOGY

The current research study was quantitative in nature as well as an appropriate design selection for experiment was essential for this study. According to [Cresswell and Clark \(2017\)](#) an experimental design is a research method in which subjects or participants are given a treatment, intervention, or strategy with the goal of determining whether the intervention produces a change in behavior. The practices of students in the treatment group were also explored. Therefore, The English Language Proficiency Test was administered according to standards stated in the Pakistani curriculum for the teaching of English to 7th-class students. In this linking, from a public girls' high school of 7th grade participants were selected and a Control group, and experimental group was chosen at random. In each group 30 girls' students were included, and experimental group received treatment through the self-assessment metacognitive strategy and control group was therefore used the traditional lecture method.

English Writing Skills Test was used as data collection tool (EWST) which created by the researcher based on the curriculum's learning objectives. The 50-items of the English Writing Skills Test were validated by Field of Experts. One hundred students who were not involved in the study were given the EWST for pilot testing. Kudar-Richardson was used to assess the test instrument's reliability, and the result was an index of 0.91. In this connection, the same Writing test was administered before and after the intervention for a period of six weeks employing as the pretest and posttest technique of data collection for both Groups. By employing the mean, standard deviation, and independent t-test data was analyzed. Independent-test was used to determine the significance of the responses' variations between the groups. Consequently, when comparing the two groups, the t-test was thus useful in determining that whether there were any significant group differences ([Cormack, 1991](#); [Cresswell, 2009](#)).

Figure 2 Intervention Procedure of Study



RESULTS & DISCUSSION

The results are produced in this section as the output of statistical procedures to attain the desired outcomes of research.

Table 1 Comparison of Pre-Test Scores of Experimental & Control Groups (Vocabulary)

Research Group	N	M	SD	t	d	Sig
Control	30	2.30	.794	.339	58	.736
Experimental	30	2.23	.728			

The table 1 indicate that there was no statistically significant difference in the pre-test scores of students from two groups in identifying the title ($t = .339, p = .736 > .001$). This finding suggests that before treatment, level of writing skills with regard to use of vocabulary was almost similar for both groups of students.

Table 2 Comparison of Pre-test Scores between Experimental & Control Groups (Vocabulary)

Research Group	N	M	SD	t	d	Sig
Control	30	2.97	.556			
Experimental	30	3.57	.774	-3.449	58	.001

Based on results presented in Table 2 ($t = -3.449, p < .001$), a statistically significant difference was observed in mean outcomes of two groups on the posttest for writing skills Test pertaining to use of vocabulary. It was evident that experimental group shown significantly more favorable outcomes as a result of treatment.

Table 3 Comparison of Pre-test Scores Between Experimental & Control (Speech)

Research Group	N	M	SD	t	d	Sig
Control	30	7.40	.932	-.261	58	.795
Experimental	30	7.47	1.042			

Table 3 indicates that there was no statistically significant difference in pre-test scores of students from the two groups in using the parts of speech ($t = -.261, p = .795 > .001$). This finding suggests that before treatment, level of writing skills with regard to use of parts of speech was almost similar for both groups of students.

Table 4 Comparison of Post-Test Scores Between Experimental & Control Groups in (Speech)

Research Group	N	M	SD	t	d	Sig
Control	30	7.73	1.337			
Experimental	30	9.47	1.852	-4.156	58	.001

Based on outcomes presented in Table 4 ($t = -4.156, p < .001$), a statistically significant difference was observed in mean outcomes of two groups on posttest in relation to parts of speech in writing skills. It was evident that experimental group exhibited significantly more favorable outcomes as a result of the treatment.

Table 5 Comparison of Pre-Test Scores Between Experimental & Control Groups (Punctuation)

Research Group	N	M	SD	T	D	Sig
Control	30	3.20	.551	.239	58	.812
Experimental	30	3.17	.531			

Table 5 indicates that there was no statistically significant difference in the pre-test scores of the students from two groups in using punctuation ($t = -.239, p = .812 > .001$). This finding suggests that before the treatment, level of writing skills with regard to use punctuation was almost similar for both groups of students.

Table 6 Comparison of Post-Test Scores Between Experimental & Control Groups (Punctuation)

Research Group	N	M	SD	t	D	Sig
Control	30	3.43	.568	-4.894	58	.001
Experimental	30	4.17	.592			

Based on outcomes presented in Table 6 ($t = -4.894, p < .001$), a statistically significant difference was observed in mean outcomes of two groups on posttest in relation to use of punctuation in writing skills. It was evident that experimental group exhibited significantly more favorable outcomes as a result of treatment.

Table 7 Comparison of Pre-Test Scores of Experimental & Control Groups (Tenses)

Research Group	N	M	SD	t	d	Sig
Control	30	3.77	.898	.150	58	.882
Experimental	30	3.73	.828			

Table 7 indicates that there was no statistically significant difference in the pre-test scores of the students from the two groups in using the tenses ($t = -.150, p = .882 > .001$). This finding suggests that before the treatment, level of writing skills with regard to use of tenses was almost similar for both groups of students.

Table 8 Comparison of Post-test of Experimental & Control Groups (Tenses)

Research Group	N	M	SD	t	D	Sig
Control	30	3.87	.571	-7.178	58	.001
Experimental	30	4.97	.615			

Based on outcomes presented in Table 8 ($t = -7.178, p < .001$), a statistically significant difference was observed in mean outcomes of two groups on posttest in relation to use of tenses in the writing skills. It was evident that the experimental group exhibited significantly more favorable outcomes as a result of the treatment.

Table 9 Comparison of Pre-Test Scores of Experimental & Control Groups (Essay Writing)

Research Group	N	M	SD	t	d	Sig
Control	30	10.10	.803	-.155	58	.877
Experimental	30	10.13	.860			

Table 9 indicates that there was no statistically significant difference in the pre-test scores of the students from the two groups in writing essay ($t = -.155, p = .877 > .001$). This finding suggests that before the treatment, level of writing skills with regard to writing essay was almost similar for both groups of students.

Table 10 Comparison of Post-Test of Experimental and Control Groups (Essay Writing)

Research Group	N	M	SD	t	d	Sig
Control	30	10.20	1.243			
Experimental	30	11.87	1.074	-5.557	58	.001

Based on outcomes presented in Table 10 ($t = -5.557, p < .001$), a statistically significant difference was observed in mean outcomes of two groups on the posttest in relation to use of tenses in writing skills. It was evident that the experimental group exhibited significantly more favorable outcomes as a result of treatment.

Table 11 Pre-test Comparison of Two Groups of whole Writing Test

Research Group	N	M	SD	t	d	Sig
Control	30	26.77	1.591	.080	58	.937
Experimental	30	26.73	1.639			

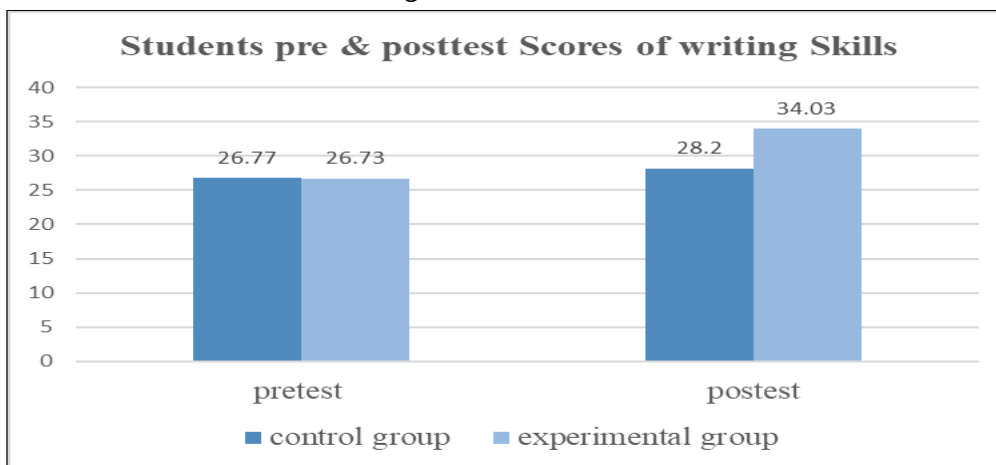
Table 11 indicates that there was no statistically significant difference in pre-test scores of students from two groups in writing Skill as a whole test ($t = -.080, p = .937 > .001$). This finding suggests that before treatment, level of writing skills with regard to writing Skill as whole test was almost similar for both groups of students.

Table 12 Post-test Comparison Two Groups of whole Writing Test

Research Group	N	M	SD	t	d	Sig
Control	30	28.20	2.578			
Experimental	30	34.03	3.178	-7.807	58	.000

Based on outcomes presented in Table 12 ($t = -7.807, p < .001$), a statistically significant difference was observed in mean outcomes of two groups on posttest in relation to whole test of writing skills. It was evident that the experimental group exhibited significantly more favorable outcomes as a result of the treatment.

Figure 3 Students Pre & Posttest Writing Scores



DISCUSSION

The findings showed that pupils who got the treatment of English teaching by employing the self-assessment method greatly outperformed their peers on the writing test. This would be due to the fact that learners have chance to examine their performance; shortcomings are fixed contributing to an improvement in performance at teacher's evaluation. The research has relevance to [Honesta \(2013\)](#) outcomes disclosed that utilization of self-assessment as approach to promote independent learning considerably enhanced the students' essays. [Javaherbakhsh \(2010\)](#) The findings indicated that furnishing experimental group with self-assessment procedures led to a marked improvement in their writing ability. It has been found that study's outcomes also confirmed by [Oscarson \(2009\)](#) research about application of writing self-evaluation techniques in practicing English language. The findings confirmed that participants performed better when judging their general skills in EFL writing. [Aly \(2005\)](#) also concluded alike the present study that self-assessment strategy improved the students' content, organization, and writing significantly. [Heidarian \(2016\)](#) concluded alike to present study that self-assessment strategy improved the students writing and this study's findings support the notion that self-assessment serves as both a valuable tool for evaluation and an efficient educational strategy.

[Mogbel \(2018\)](#) research emphasized the importance of instructing EFL students in self-assessment, providing them with explicit guidance, selecting suitable self-assessment activities and strategies to enhance their writing skills. Research has relevance to [Nbina and Viko \(2010\)](#) which confirmed that instructing students in metacognitive self-assessment methods leads to improved academic performance & delicate sense of self-worth. Study revealed that use of metacognitive instructional strategies has a significant influence on students' English language proficiency and further helps to teach students to create detailed plans/outlines before they begin writing. This helps them organize their thoughts and ensure their writing is coherent and focused. The study revealed that while some students were able to recognize and correct their own mistakes, others became dejected when they realized they were unable to do so. It is vital for English teachers to use these techniques to enhance students' ELS. Learner-centered teaching methods, including metacognitive approaches, promote student engagement, enable learners to think critically & creatively ([Taylor, 1999](#)). Metacognitive practices are believed to involve students in the learning process and work to develop their critical thinking, reasoning, problem-solving abilities if executed effectively & with attention ([Coutinbo, 2007; Magno, 2010](#)).

CONCLUSION

The importance of the metacognitive strategies is increased the in the educational system with the passage of the time. Therefore, it is widely accepted that the efficacy of educators and instructional techniques plays a pivotal role in student learning outcomes in development of English language Skills. So, those Teachers who exhibit a strong commitment to their profession, employ innovative teaching techniques in the teaching process of the classroom, and deliver effective instruction and provide constructive feedback to their students which may be helpful to stimulate and encourage them in their learning. A recent study demonstrated that instructing students in English language teaching over metacognition can significantly enhance their performance. Particularly, utilization

of self-assessment as a metacognitive method can improve students' reading comprehension when compared to conventional methods. Consequently, high school English teachers should consider integrating self-assessment metacognitive approach into their instruction. As teaching language is a creative endeavor, teachers should employ metacognitive strategies when instructing in English. To ensure success of such instruction, teachers must be trained to develop necessary skills to use this approach effectively.

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