Thinking-aloud as a Metacognitive Strategy to Enhance EFL Students' Academic Writing

التفكير بصوت مرتفع كإستراتيجية ما وراء عقلية لتحسين مستوى الكتابة الأكاديمية لدى طلبة اللغة الإنجليزية

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Abstract: This study aims to investigate the effect of using the think-aloud method on improving the academic writing of 62 EFL students at the department of English -University of Laghouat- Algeria. For this purpose, students were randomly assigned to an experimental and a control group. The treatment of the experimental sample took place during the second semester of the 2021/2022 academic year in which students were trained to use thinking-aloud as a metacognitive strategy in order to raise their metacognitive awareness and help them regulate their thinking in the writing classroom. The data collection tool for this study was the scores of the pre-test and the post-test of the writing test. The findings of this study revealed that using the think-aloud method in the writing class had a positive impact on enhancing students' academic writing and their overall writing competency. This study has also shown that training students to use thinking aloud increases their awareness about writing. As a result, it recommends the use of the think-aloud method in the writing classroom.

keywords: Thinking-aloud, EFL Students, Academic Writing, Metacognition, Metacognitive Strategies.

ملخص باللغة العربية:

هذه الدراسة تهدف الى التحري عن مدى تأثير استعمال تقنية التفكير بصوت مرتفع على مستوى الكتابة الأكاديمية لـ62 طالبا للغة الإنجليزية بقسم اللغة الانجليزية بجامعة الأغواط في الجزائر. لأجل هذه الغاية، تم توزيع الطلبة على مجموعة تجريبية وأخرى ضابطة. تم تجريب الدراسة على المجموعة التجريبية خلال السداسي الثاني للسنة الدراسية 2022/2021 والتي تم خلالها تدريب الطلبة على استعمال التفكير بصوت مرتفع كتقنية ما وراء عقلية من أجل رفع مستوى الوعي العقلي ومساعدتهم على تنظيم تفكيرهم أثناء الكتابة. تم جمع النتائج لهذه الدراسة عبر تحصيل نقاط الامتحانين القبلي والبعدي لمقياس الكتابة الأكاديمية. نتائج هذه الدراسة بينت أن استعمال تقنية التفكير بصوت مرتفع كان لديها تأثير ايجابي على تحسين مستوى الكتابة الأكاديمية للطلبة وعلى مستواهم في الكتابة بشكل عام. اكتشفت هذه الدراسة أيضا أن تدريب الطلبة على استعمال التفكير بصوت مرتفع تزيد من مستوى الوعي لدى الطلبة أثناء الكتابة. كنتيجة، هذه الدراسة توصي بإستعمال تقنية التفكير بصوت مرتفع في دروس الكتابة الأكاديمية.

الكلمات المفتاحية: التفكير بصوت مرتفع، طلبة الانجليزية، الكتابة الأكاديمية، ما وراء العقلية، الاستراتيجيات ما وراء العقلية.

INTRODUCTION

The enhancing of the writing skill is now a key objective of second language education. Several studies have been concerned with the development of the writing skill in the EFL classroom. Lee and Yunus (2021) argue that despite being a complex activity in learning a language, students are still encouraged to learn writing. Learners find the mastery of such skill one of the most difficult tasks they have to go through during their time in university. This is mostly due to the misconceptions they have about it, and sometimes, because of insufficient instruction from the part of the writing teacher. Students view writing as a product of arbitrary grammar rules instead of a process dependent on the flow of thoughts and ideas (Ibrahim & Adnan, 2020). This misunderstanding of the nature of writing by the students presents a need to address the issue. Researchers and education specialists need to find ways to facilitate the learning of this productive skill and to raise students' metacognitive awareness

when attending the writing class. This research attempts to bridge this gap by introducing the use of thinking-aloud as metacognitive strategy to enhance students' academic writing. For this objective, an experimental study was designed and the use of research instruments was necessary to ensure the success of this research.

Statement of the Problem

Writing is often considered to be the most challenging skill EFL students have to master during their time at university. There has been an abundance of studies which have dealt with second language writing at university level (Nystrand, 1984; Khuwaileh & Shoumali, 2000; Bailey, 2018; Tran, 2021). Most of which highlighted the difficulty of learning such a skill and have attempted to devise strategies to successfully teach this most elusive skill. The available body of literature also shows that research on metacognition and writing has been active during the past few decades (Wong, 1999; Harris, Santangelo, & Graham, 2010; Gorzelsky, G., Driscoll, Paszek, Jones, & Hayes, 2016; Teng, 2020). Reading the literature on both writing and the use of metacognition in writing, the researcher, noticed a severe lack of research that has been conducted on the thinking aloud strategy in particular, this has led to identifying a gap in terms of both content and need to investigate the effect of implementing thinking aloud as a metacognitive strategy to enhance EFL university students' academic writing in the Algerian context.

Significance of the Study

This study contributes to enriching teachers' knowledge about how to effectively teach writing using metacognitive strategies in general and thinking aloud in particular. Teachers often are unaware of the importance of metacognition and its relation to EFL writing. This study provides them with empirical data on the effectiveness of using thinking aloud as a metacognitive strategy

to improve students' academic writing. It also provides students with valuable training on how to regulate their thinking process during writing using the metacognitive strategy thinking aloud

The Aim of the Study

This study attempts to improve students' writing by training them to use thinking-aloud to organize their thinking and regulate the cognitive processes involved in writing. It is going to focus on the effect of using the think-aloud method as a medium of instruction on the development of students' academic writing.

Research Questions

EFL students face many difficulties during writing, one of the suggested solutions to overcome these problems is to raise their awareness through teaching them how to regulate their thinking by using thinking-aloud as a metacognitive strategy. This research attempts to investigate these problems and asks the following questions:

- To what extent does the use of the think-aloud method affect students' academic writing?
- Does training students how to regulate their thinking enhances their academic writing competency?

Literature Review

Writing

Writing is often referred to as the graphic representation of speech. It is the act of conveying thoughts, feelings, and experiences through the written word. This may take the common form of writing down one's thoughts using a pen and a paper, or the digital form using a computer, mobile phone, or any other digital device. This rather elementary definition of writing is stated by Brown (2001) who explained that "a simplistic view of writing would assume that written language is simply the graphic

representation of spoken language" Brown (2001, p.335). This, however, is far from what a thorough definition of what writing is. According to Rivers (1981: 294) writing is the act of carrying out meaning or expressing authentic ideas consecutively using a new language.

More broadly, writing is defined in the terms of the written product where both the creativity of the writer and the linguistic competence are taken into account. In this vein, Taylor (1981) argues that "Writing then is a creative discovery procedure characterized by the dynamic interplay of content and language: the use of language to explore beyond the known content" (Taylor, 1981: 6). Writing is also defined as a thinking process (Brown, 2001: 336). Another definition of writing is that of Hyland (2003), he defines writing as "marks on a page or a screen, a coherent arrangement of words, clauses, and sentences, structured according to a system of rules".

According to Huy (2015:1) writing is: "one of the most important skills in studying English because not only is writing an academic skill, but it is also an important skill that translates into any career fields". Due to the importance of writing in the field of the English as a foreign language, a variety of teaching strategies have been developed in order to facilitate the teaching and learning of this productive skill. Some researchers attempted to use written feedback as a strategy to improve students' writing (Bonsu, 2021; Hyland & Hyland, 2019). Others resorted to the use of peer feedback (Huisman, Saab, Van Driel & Van Den Broek, 2018; Fan & Xu, 2020). While (Schuldt, 2019; Solhi & Eginili, 2020) attempted to use oral feedback as a teaching strategy to enhance students' writing. There were also some studies which attempted to investigate the use of games in developing writing (Kheyardi, 2017; Mazhar, 2019).

It is quite fair to say that there is no general agreement on what a clear definition of writing is, understanding the nature of this productive skill is difficult and both students and teachers

alike find it quite challenging to either learn or teach this output skill, all of which has led to the emerging of different approaches to teaching this rather important skill.

Approaches to Teaching Writing

Researchers and education specialists have attempted to design teaching approaches that would facilitate the teaching and learning of writing by students and teachers alike. Some of these approaches had their main focus on the product of writing, others prioritized the process involved in writing, while some gave importance to the different genres of written compositions.

One of the most popular and widely used approaches in the teaching of writing is the product approach. This approach is designed to emphasize the accuracy of writing and focuses on students' final written products. It is inspired by the behavioristic doctrine of where language learning is considered to be a matter of mechanical habit formation. imitating and modeling of text are then essential parts of this approach (Nunan, 1999). The product approach to teaching writing is composed of a process of four stages (Hyland, 2003:3-4):

- Familiarization: Learners are instructed specific grammar and vocabulary, usually done by using a model text.
- Controlled writing: involves learners manipulating fixed patterns, most commonly by resorting to substitution tables.
- Guided writing: Involves the imitation of model texts.
- Free writing: student-writers use the patterns they have developed for the purpose of composing an essay, a letter, or an invitation etc.

The process approach emerged as a reaction to the product approach. Its emphasis is on the process of writing and gives little importance to the written product. In this approach, more

importance is given to planning, drafting, and revising. While not much emphasis is dedicated to grammar and the structure of the written text. Researchers have, to a certain degree, agreed that there are four stages in the process approach (Richards and Lockhart, 1996; Harris, 1993).

- Pre-writing: This is the first stage of the writing process and it takes place before the student has begun writing. Students are meant to gather ideas on the topic, contemplate ways of how to develop them, and go through the necessary techniques. In this stage, they have the options to brainstorm, use planning grids, mind maps and the like.
- Drafting: at this stage of writing, students make their ideas into temporary texts bound for change at a later stage. They have the freedom to modify, rearrange, and explore their writing.
- Revising: at the third stage, writers go through what they have written, they may make changes in the form of deleting, adding, or replacing words and sentences.
- Editing: it is the final stage of the writing process. Here, students scan their written products and ensure there are no spelling or grammar mistakes. They check the mechanics as well, be they punctuation, or capitalization and they also review the structure of their written composition.

Metacognition

Writing is also a cognitive activity that takes place inside the writer's brain before being put to paper, students are required to organize their thinking using different organizational strategies often referred to as metacognition. It is quite common to define metacognition as "thinking about thinking" or the knowledge that cognitive beings have about themselves. It remains, however, quite the fuzzy concept, even today.

There is no general consensus on what a unanimous definition of metacognition is, the term metacognition was first coined by American psychologist John H. Flavell in 1976. Flavell (1976) defined metacognition as "one's knowledge concerning one's own cognitive processes and products or anything related to them" (323). In 1979, Flavell upgraded his definition of metacognition to "individuals' information and awareness about their own cognition", (Flavell, 1979). When individuals are engaged in the conscious, goal-oriented process of thinking and they are regulating their thoughts and strategy use, they are engaged in metacognition. According to garner (1987) 'metacognition is essentially cognition about cognition. If cognition involves perceiving, understanding, remembering, and so forth, then metacognition involves thinking about one's own perceiving, understanding, and the rest'. In this sense, metacognition is the process of being aware of our cognitive processes as well as the regulation and control we have over these various processes. It is believed that metacognition makes its way into action as early as childhood, and then develops over time with a high chance of never reaching its full potential. Kuhn (2004) states that "Metacognition originates early in life, when children first become aware of their own and others' minds. But like many other intellectual skills, metacognitive skills typically do not develop to the level we would like." (p.270). In the same vein, Cross & Paris (1988) state that metacognition is "the knowledge and control children have over their own thinking and learning activities".

Research on Metacognition and Writing

Research on metacognition and writing has been active during the past few decades. In an experimental study conducted in 2018, Farahian and Avazamani attempted to investigate the role of portfolios in EFL students' metacognition as well as their writing, the findings of this study revealed that portfolios have a positive influence on students' metacognition as well as their

writing. Ten, (2020) investigated metacognition and its relationship to writing based on six parameters (declarative, procedural, and conditional knowledge, planning, monitoring, and evaluation). The findings of this study have shown that these parameters were positively correlated to writing, they have also revealed that scores on regulation of metacognition allow to predict writing proficiency more than those related to declarative knowledge. In the same vein, Colognesi, Piret, Demorsy, & Barbier, (2020) examined the writings of 43 students who were engaged in a specific genre, book reviews. The students were divided into two classes, with one group being exposed to metacognitive questions before, during, and after the writing. Their results show that students performed well under both conditions, however, students were exposed to metacognitive questions performed much better in terms of writing ability.

Thinking Aloud

One of the many metacognitive strategies used to raise students' metacognitive awareness and train them to organize their thinking is the 'thinking-aloud". It assists students in retrieving the strategies they know as well as how to use them in any given situation (Park, 2005). Thinking-aloud requires students to verbalize their thoughts aloud and are believed to be effective in providing researchers with insights to students' cognitive processes. Faerech and Kasper (1987) argued that think-aloud protocols are 'particularly informative about informants' global approach to a task, the levels of decision making they operate on, and the considerations that govern their decisions' (p.16). Through the use of think-aloud protocols, we can have a fairly good idea about the overall approach our learners take when embarking in problem-solving activities, the reasons behind the decisions they make, and the different levels of decision-making processes they go through. When students comment and verbalize their thoughts, they give themselves and the teacher an insight of what is going inside their brains.

According to (Oster, 2011) these comments "reveal readers' weak nesses as well as their strengths as comprehenders and allow the teacher to assess their needs in or der to plan more effective instruction".

Research on the use of thinking-aloud as a metacognitive strategy in the field of ESL is rather scarce, and it is even more scarce with regard to EFL writing. In a study conducted by Wang (2016), a sample of ten Taiwanese EFL high school students were divided into pair so as to complete reading activities using thinking-aloud. Result revealed that the skilled pairs were capable of employing the strategies more effectively in order to understand the text whereas the less skilled pairs faced issues in the application of these strategies so as to fully comprehend the text.

Despite the merit Thinking-aloud receives, it has always been subject to criticism. One of the major blowbacks think-aloud protocols receive is that they are not particularly easy to use. Students may feel awkward or find it uncomfortable to think their thought aloud while trying to solve a problem. Beck and Kucan (1997) mention that the majority of the body of research available fails to provide specific examples of this process. Very little research has been done about the effect of think-aloud protocols and academic writing.

Research Methodology

Participants

A group of 62 male and female Algerian EFL students at the English department at the university of Amar Telidji Laghouat agreed to take part in the experiment. They were in their third year as English language students and have been divided into an experimental and a control group. Each group counted for 31 students. Their ages ranged between 20 to 22 years old and have been studying English for ten years in total. Their level in

English was determined to be upper-intermediate and they have been studying writing as a module in university for three years. The sample population in this research was deemed to be homogenous in terms of the number of students and their language ability.

Research Instruments

The research instrument used to collect data in this research was students' pre-test and posttest scores. The majority of experimental designs involve participants in a 'pretest-posttest' procedure so as to compare informants' level development before and after being exposed to the treatment. A pretest accounts for a baseline of information which can be put to comparison with findings on the dependent variable in the posttest (Seliger and Shohamy, 1989:112). This is particularly true for our research as both the experimental and the control sample were part of the pretest-posttest procedure. The aim of using this research tool was to determine the effect using think-aloud protocols has on the experimental group's writing performance and the absence of effect it should have on the control sample by comparing the test scores of both samples before and after the treatment. A pretest and a posttest were administered to both samples. These tests were corrected by the researcher and the results were analyzed using the SPSS software.

Method

The nature of the current study is experimental. (Hatch and Lazaraton, 1991) described experimental research as 'true experimental studies'. This kind of research resorts to the random sampling of an experimental and control group and it attempts to assess the differences between both samples at the start as well as the end of the experiment. Consequently, it measures the level of 'growth' in learners' performance during the span of the experiment. This study adopts the experimental design because it aims to investigate the effect of using think-aloud protocols on

improving students' academic writing for the experimental group as well as the lack of effect on the control sample which has been taught using the traditional type of instruction.

Procedure

The experimental sample was concerned with the treatment in this study, the treatment took place during the second semester of the 2021/2021 academic year and it amounted to a total of nine courses. The premise was to familiarize students with Think-aloud protocols and train them to use this metacognitive strategy during the different stages of their writing. Each student was assigned a list of questions to ask aloud, these questions were aimed to raise their metacognitive awareness and help them organize their thinking. Students were required to work individually throughout the entire instruction and during each stage of writing they were required to think-aloud and verbalize their thoughts. At first, students were uncomfortable with the procedure and found it "awkward" but as they practiced more, they were at ease and felt more comfortable with uttering their thoughts aloud.

Results and Interpretation of Data

Scores Analysis

Table.1: Pre-Test Scores

CTR Group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	10.00	1	3.2	3.2	3.2
	10.50	4	12.9	12.9	16.1
	11.00	4	12.9	12.9	29.0
	11.50	4	12.9	12.9	41.9
	12.00	2	6.5	6.5	48.4
	12.50	7	22.6	22.6	71.0
	13.00	4	12.9	12.9	83.9

	13.50	1	3.2	3.2	87.1
	15.00	2	6.5	6.5	93.5
	15.50	1	3.2	3.2	96.8
	16.00	1	3.2	3.2	100.0
	Total	31	100.0	100.0	

Results from table 1 reveal that students achieved rather average scores in their pre-test. The most frequent mark obtained by students was 12.5/20 with a percentage of 22.6 % followed by 12 students who achieved 10.5, 11, and 11.5 consecutively. The lowest mark was 10/20 which was obtained by only one student while the highest mark was 16/20 also obtained by only one student.

Table.2: Post-test Scores

CTR Group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	10.00	2	6.5	6.5	6.5
	10.50	3	9.7	9.7	16.1
	11.00	4	12.9	12.9	29.0
	11.50	2	6.5	6.5	35.5
	12.00	6	19.4	19.4	54.8
	12.50	3	9.7	9.7	64.5
	13.00	5	16.1	16.1	80.6
	13.50	1	3.2	3.2	83.9
	14.00	3	9.7	9.7	93.5
	16.00	1	3.2	3.2	96.8
	16.50	1	3.2	3.2	100.0
	Total	31	100.0	100.0	

The data collected from table 2 show that the most frequent mark obtained by the students was 12/20 with a percentage of 19.4% followed by 5 students who obtained a mark of 13/20 16.1%. The lowest mark remained to be 10/20 achieved by 2 students while there was an increase of 0.5 for the highest mark which was 16.5 obtained by only one student.

Table.3: Statistics CTR Group

		Pre-test CTR	Post-test CTR	Difference
N	Valid	31	31	31
	Missing	0	0	0
Mean		12.2742	12.2903	.0161
Std. Deviation		1.52665	1.55871	.59838
Minimum		10.00	10.00	-1.00
Maximum		16.00	16.50	1.50

Based on the results obtained from the scores of the pretest and the posttest of the CTR sample, the researcher did not notice any significant effect or improvement in the informants' overall writing achievement. Table 1 shows that the mean score of the pre-test was 12.2742 while the mean score of the post-test was 12.2903. We have noticed that there is a slight increase of .0161 but this does not qualify to be considered a significant improvement in students writing ability. The results also reveal that the minimum score of the pretest was 10 and has not changed in the posttest, while there was a slight increase of 0.5 in the maximum score obtained by a student in the pr-test and the post-test.

Table.4: One-Sample Statistics Control sample

	N	Mean	Std. Deviation	Std. Error Mean
Difference of mean scores in the control sample	31	.0161	.59838	.10747

Table 4 reveals that when conducting the one-sample statistics, the difference between the overall mean scores of the control sample in the pre-test and the post-test was 0.0161, which indicates that there is a lack of effect on the control sample due to the absence of the treatment.

In figure 1, we noticed that the majority of the CTR students' scores ranged between 10-13/20 whereas there was a decent number of students who averaged between 13-16/20 in the pretest. This has not changed much in the posttest as almost the same results were obtained. This suggests that there was no increase in students' writing level, nor was there a decrease for that matter. The tradition method of instruction seems to have no effect on students' writing proficiency whatsoever.

Fig. 2: CTR Students' Score Range

in the Post-test

Table. 5: EXP Scores
Pre-test

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	8.00	1	3.2	3.2	3.2
	8.50	1	3.2	3.2	6.5
	9.00	1	3.2	3.2	9.7
	9.50	1	3.2	3.2	12.9
	10.00	5	16.1	16.1	29.0
	10.50	1	3.2	3.2	32.3
	11.00	8	25.8	25.8	58.1
	11.50	1	3.2	3.2	61.3
	12.00	3	9.7	9.7	71.0
	12.50	5	16.1	16.1	87.1
	13.00	1	3.2	3.2	90.3
	14.00	1	3.2	3.2	93.5
	15.00	1	3.2	3.2	96.8
	16.00	1	3.2	3.2	100.0
	Total	31	100.0	100.0	

The results obtained from table 5 show that the most frequent score obtained by students in the pre-test was 11/20 with a percentage of 25.8% which was lower than that of the CTR group during the pre-test. There were also 10 students who achieved the marks 10/20 and 12.5/20 equally, 5 students each. The lowest mark was 8/20 obtained by one student and a total of four students scored below average.

Table. 6: EXP Scores

Post-test

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	10.50	4	12.9	12.9	12.9
	11.00	2	6.5	6.5	19.4
	11.50	1	3.2	3.2	22.6
	12.00	2	6.5	6.5	29.0
	12.50	5	16.1	16.1	45.2
	13.00	5	16.1	16.1	61.3
	13.50	3	9.7	9.7	71.0
	14.00	3	9.7	9.7	80.6
	15.00	2	6.5	6.5	87.1
	15.50	2	6.5	6.5	93.5
	16.00	1	3.2	3.2	96.8
	16.50	1	3.2	3.2	100.0
	Total	31	100.0	100.0	

As apparent in table 6, there is an increase in EXP students' scores in the post-test. The lowest mark obtained by students was 10.5/20 achieved by 4 students (12.9%) of the sample, this goes to show that students' have improved in terms of their writing competency. The most frequent marks were 12.5 and 13.5/20 with a percentage of 16.1% each. As for the highest mark obtained, only one student received a mark of 16.5/20.

Table. 7: Statistics

EXP

		Experimental scores pretest	Exp scores post-test	Difference in experimental scores
N	Valid	31	31	31
	Missing	0	0	0
Mean		11.3387	13.0000	1.6613
Std. Deviation		1.74827	1.67332	1.22738
Minimum		8.00	10.50	-.50
Maximum		16.00	16.50	4.00

Results obtained from table 7 show a significant increase in the mean scores of the EXP sample. The findings revealed that the use of the think-aloud method to enhance students' academic writing is indeed effective. The data in table 7 show that the mean score of the pretest was 11.3387 while the mean score from the posttest results was 13. The mean difference between the pretest and the posttest scores is 1.6613 which clearly states that there is a significant improvement in students' scores in the writing test. This in turn, shows the effect of using TAPs in the writing class. There was also an increase of 2.5 marks for the lowest end of the scores achieved since the lowest score registered in the pretest was 8/20 and the minimum score obtained in the posttest was 10.5. higher achieving students also saw an increase of 0.5 points since the highest mark registered in the pretest was 16/20 while the highest score obtained in the posttest was 16.5/20. This reveals an interesting suggestion that using think-aloud protocols works better for underachieving students more than the higher achieving ones.

We have also noticed more diversity when it comes to students' score range. During the pretest, there was a discrepancy of score distribution in the pretest, three categories were distinguished: students achieving between 8-11.5/20, or between

11.5-15/20, and between 15-18/20. A more balanced pattern appeared in the score distribution of the posttest. Students obtained marks ranging between 10.5-13.5/20 and 13.5-16.5/20. This is indicative of a more stable and steady improvement in the students' overall achievement in writing. More details can be seen in figure 3&4.

Fig. 3: EXP Scores Range

Discussion

This research has attempted to investigate the effect of using thinking-aloud as a metacognitive strategy on students' academic writing. It adopted the experimental method in which a treatment was administered to an experimental sample whereas no treatment was applied to the control group. The research instrument used in this was the scores of the pretest and the posttest for both the EXP and CTR samples. Students were taught how to write the argumentative essay throughout the span of the entire second semester of the 2021/2022 academic year and had a total of nine meetings with the teacher of academic writing. During the instruction, students were trained to use thinking-aloud as a metacognitive strategy to raise their metacognitive awareness and to regulate their thinking when involved in writing in English. Through the findings collected from the research instruments, the following answers were presented to the research questions:

Research Question 1: To what extent does the use of the think-aloud method affect students' academic writing?

Based on the findings obtained from the scores of students and the interviews, we can say that the use of the think-aloud had a positive impact on students' overall writing proficiency. The experimental sample scores increased after using the think-aloud method while those of the control sample did not witness similar growth. The mean scores for the CTR sample were 12.2742 in the pretest and it increased to a mean score of 12.2903 in the posttest scoring a difference of .0161 which does not amount to be considered a significant increase in students' overall achievement in writing. The EXP group on the other hand registered a mean score of 11.3387 in the pre-test and an improved mean score of 13.0000 in the posttest with a mean difference of 1.6613 which indicates there is a rather significant improvement in students' writing competency, that of which could be attributed to the introduction of thinking-aloud as a

metacognitive strategy to enhance their writing.

Research Question 2: Does training students how to regulate their thinking enhance their academic writing competency?

The findings of this research suggest that training students how to regulate their learning indeed effective in enhancing their academic writing competency. This is backed by findings from other studies as well. A study by Cer (2019) suggests that metacognition emphasizes that texts should be restructured through planning, revising, monitoring, evaluating and editing.

Limitations and Recommendations

Similar to any other research, this study was challenged by some limitations. The major one being the difficulty of administering and familiarizing our students with the use of the Thinking-aloud method. Another limitation to this research was that using such method is very time-consuming and is not appropriate for larger classes. The researcher recommends further research be conducted on this issue and that they be conducted by more than one researcher. Also, for more validity and reliability of the findings, we recommend that students' think-aloud passages be recorded, transcribed, coded, and then analyzed.

CONCLUSION

The present research has attempted to investigate the effect of using the think-aloud method on EFL students' academic writing. It is not a descriptive study but is rather empirical in nature and seeks to provide a solution to the dilemma of second language writing instruction. This research adopts the experimental method and includes the use of experimental and control groups. A treatment was applied to the EXP sample while there was not manipulation of the CTR group. The tool used for collecting data was the writing test scores. The results revealed that the mean score of the CTR sample was 12.2742 in the pretest and it witnessed a slight increase in the posttest registering a mean

score of 12.2903 (table.3). However, the mean score of the EXP was 11.3387 in the pretest while it increased to 13 in the posttest (table.7), which indicates a significant increase in students' performance in writing, this is attributed to the implementation of the thinking aloud in the treatment. In terms of scores' range, the EXP sample scores ranged between 10/13 and 13/16 in the pretest and their scores remained more or less in the same range in the posttest 10/13 and 13/16 (figures 1&2), as for the EXP sample their scores in the pretest ranged between 8/11.5, 11.5/15, and 15/18 (fig.3) whereas in the posttest, a more balanced score range was achieved 10.5/13 and 13/16 (fig.4). With regard to the lowest and highest marks achieved, the CTR sample results revealed that the lowest mark achieved in the pretest was 10/20 while the highest mark was 16/20 (table.1), their results didn't differ much in the posttest as the lowest mark achieved was 10/20 and highest mark was 16.5/20 showing a slight increase of 0.5 points (table.2). This was not the case for the EXP sample as the lowest mark obtained in the pretest was 8/20 and the highest mark was 16/20, this differed greatly in the posttest since the lowest mark increased by 2.5 points and the highest mark increased by 0.5 points (tables. 5&6). This shows that the underachieving students benefited more from the treatment and their writing performance improved after the implementation of thinking aloud in their writing. The findings of this study support the claim of the effectiveness of using thinking-aloud in the writing classroom and highly recommends the inclusion of this medium of instruction across the curriculum. The researcher also recommends further studies be conducted on the effect of using TAPs in the writing classroom, these studies need to be expanded on a larger scale and be done through the collaboration of research groups or labs.

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