ISSN: 0975-833X

Available online at http://www.journalcra.com

International Journal of Current Research
Vol. 10, Issue, 12, pp.76773-76779, December, 2018

DOI: https://doi.org/10.24941/ijcr.33626.12.2018

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

RESEARCH ARTICLE

THE EFFECT OF USING CALLA MODEL INSTRUCTIONS BASED ON METACOGNITIVE WRITING MODULE ON 12TH GRADE STUDENTS' WRITING ACHIEVEMENT

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ARTICLE INFO

Article History:
Received 30th September, 2018
Received in revised form
18th October, 2018
Accepted 30th November, 2018
Published online 31st December, 2018

Key Words:

CALLA,
12grade students,
Writing achievement,
Metacognitive.

ABSTRACT

English teacher should think hard how to make the teaching process be interesting and lively in order to reach the goal of teaching. CALLA (Cognitive Academic Language Learning Approach) strategy is recommended to be applied in teaching writing especially writing composition, cause this strategy has three components; curriculum content, academic language and learning strategies that the teacher can combine them in the teaching with the five phases; preparation, presentation, practice, evaluation, and expansion. This study aims to investigate the effect of using CALLA instruction based on metacognitive writing module on 12th-grade students' achievement in Almazar secondary. The researcher used a quasi-experimental design, the participants in this study were assigned randomly into 2 group: experimental group (22) students in each and control group (22) students in each. The control groups studied the writing traditionally, while the experimental groups studied the writing through CALLA. A pre-test was administered to the groups to make sure that there were no significant differences between their performances in writing achievement and satisfaction achievement scale. Data were submitted to the independent Mann-Whitney U test followed by Wilcoxon Signed-Rank test analysis. The results revealed the positive effect on the experimental group's writing performance. Mann-Whitney U test results are presented by the r value (r = -.872) showed that the effect was a large on students writing performance in experimental group. Meanwhile, Wilcoxon Signed-Rank test results are presented The effect size of r = 0.630 represents a large effect on the students use of metacognitive strategies in writing. Therefore, CALLA model and metacognitive strategies are still practical and relevant to be used as the teaching approach in Jordanian English classes and hoped to improve the English language communication amongst the students in Learning environment.

Citation: Tamer Mohammad Al-Jarrah, Noraien Mansor, Rania Hassan Talafhah, Jarrah Mohammad Al-Jarrah et al., **2018.** "The effect of using calla model instructions based on metacognitive writing module on 12th grade students' writing achievement", *International Journal of Current Research*, 10, (12), 76773-76779.

INTRODUCTION

Writing skill is very important as we know that all knowledge's cannot be separated from writing process. Today, the ability to write has become an indispensable skill in our global literature community that every country has introduced writing subject to students through the educational system. It is obviously that our government considers writing subject as an important lesson to be taught at school. In the case of English, writing is introduced to the students mostly when they are in secondary school level. The students are expected to be able to write paragraphs and simple composition in English.

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Writing has a very complex process, it needs comprehensive knowledge's such as grammar, vocabulary, punctuation, appropriate content, word selection, topic and occasion (He and Shi, 2012) states that in principle, to write means to try to produce or to reproduce written massage. Before we write, we need to determine what to write. We should have something meaningful, clearly, precisely and unambiguously. It is clear that writing is not easy, it requires knowledge, skill and concept in order that someone is able to produce a good piece of writing. Therefore, an English teacher as the facilitator in teaching learning process should design a good concept of teaching to encourage students to write a good writing for example, media and technique used in teaching learning process should be relevant to student background and the things they see in their surroundings. Writing in the broad

sense is a process of producing thoughts through several metacognitive processes. These thoughts need to be transferred into an external symbol that can be understood by others (Berninger, 2012). Moreover, Writing is one of those skills that students should master so before they start mastering this skill they need to know what to write and to whom they write purpose and audience- and once they know the purpose the form will become obvious (Graham, Gillespie and McKeown, 2013). Explaining writing genres for students makes it easy for them to start writing. Descriptive, argumentative, narrative is listed under genre which students can use in writing paragraphs. In this context, teachers must use effective teaching methods that may enhance students writing skills as well as their satisfaction and enjoyment while writing. Among those strategies there is the Cognitive Academic Learning Approach (CALLA) which was developed in 1986 to improve student's achievement in language as a whole (Chamot and O'Malley, 1994).

In this case, the CALLA (Cognitive Academic Language Learning Process) strategy is effective to be applied in teaching writing in the part of narrative writing then it is recommended to use to facilitate student's narrative writing ability. The cognitive Academic Language Approach (CALLA) is a teaching method based on the cognitive theory, integrating the content with certain learning strategies to ensure the quality of instruction and enhance students' achievement. Theoretically based on cognitive learning theory, CALLA focuses more on learning rather than teaching. It is clearly underscored that teachers can learn how to teach better by understanding how students learn (Chamot and O'Malley, 1994). The model consists of three salient elements (Chamot and O'Malley, 1994): content topics, improving academic language skills, and teaching of language learning strategies. Depending on the level of students, content subjects can be chosen among mathematics, science, social studies, and literature. One of the approaches that can be used by teacher to teach learning strategy is Cognitive Academic Language Learning Approaches (CALLA). Cognitive Academic Language Learning Approach (CALLA) was developed in the United States in 1986 by Chamot and O'Malley in order to overcome the academic problems that secondary education students who were learning English as L2 were having in their other classes. In this approach, students are taught to use learning strategies derived from a cognitive model of learning as aids to comprehension and retention of language skills and content area concepts. CALLA has three main components; content topics, academic language development, and explicit instruction in learning strategies for both content and language acquisition (O'Malley and Chamot, 1994). According to (Chamot, 2004), CALLA is designed to: (1) meet the academic development needs in English of elementary and secondary students. (2) provide a program of content based that can serve as a bridge between the ESL or bilingual program and mainstream education; and (3) develop a curricular and instructional approach for LEP students based on cognitive model of training. It shows that CALLA can be implemented in Indonesia since students in Indonesia categorize as Limited English Proficient (LEP) students. But, since English taught as foreign language in Indonesia, the implementation of this approach will be different from the original one. It should be adjusted with the students' condition in Indonesia since ESL and EFL context are different. The adjustment will be on the steps of implementation of CALLA in classroom and the materials which are used by the teacher. In addition, the explicit instruction of CALLA is the consideration of writer to implement this approach in the classroom. There are some previous studies dealing with CALLA. The result of those studies indicate that strategy instruction based on CALLA has positive effect on reading performance (Gurses, and Adiguzel, 2013; Phuakpong, 2011; Marimuthu and Muthusamy, 2011). Their studies revealed that CALLA can imrove students' reading comprehension. In addition, CALLA also improve students' strategy awareness (Phuakpong, 2011). On listening performance (Coskun, 2010), students in experimental group got better listening score than control group. It means that CALLA also has positive effect in listening skill. The last is on students' perception (Adiguzel and Gurses, 2013). The findings generally indicated that students holdpositive opinions about the effect of reading strategies instruction over their readingskills and strategy use. Furthermore, after the strategy instruction, a certain variationamong the strategies applied by students was detected and students were noted tohave higher levels of awareness concerning their reading skills and strategy use. However, it seems that there are no studies that focus on investigating the implementation CALLA in developing students' cognitive reading strategies and reading comprehension especially in Indonesia. Moreover, since the strategy and skill employed in this research are specific, cognitive reading strategy and reading skill, CALLA which is going to be employed in this research will be modified to fiton those two aspects. It should be useful to know whether or not the application of modified CALLA can help students in developing their cognitive reading strategies and reading comprehension.

Literature review

Cognitive Academic Language Learning Approach (CALLA)

The Cognitive Academic Language Learning Approach (CALLA) is an instructional model for second and foreign language learners based on cognitive theory and research. CALLA integrates instruction in priority topics from the content curriculum, development of the language skills needed for learning in school, and explicit instruction in using learning strategies for academic tasks. The goals of CALLA are for students to learn essential academic content and language and to become independent and self-regulated learners through their increasing command over a variety of strategies for learning in school

1. Preparation: In this phase, the metacognitive strategies in writing were presented and explained to students in English which were supported by contextual clues. The researchers first handed out a list of the metacognitive strategies in writing including self-planning, self-monitoring and self-evaluation. Then, the characteristics, usefulness, and applications of the strategy were explicitly explained through examples.

2. Presentation: In the phase of preparation, the researchers first helped students to identify what they knew about the contents and strategies, what gaps in prior knowledge should be addressed. Elaboration, advance organization and selective attention are most commonly taught and practiced in this stage. Then the teacher offered metacognitive writing strategies to students and explained the importance of it and helped students to set positive, practical, feasible goals.

3. Practice: Students were offered opportunity of practicing new strategies with authentic writing activities in this stage. They were required to recall writing strategies including cognitive and metacognitive ones that were presented in the presentation stage; then students began to plan their writings according to self-planning strategy.

4. Evaluation: In this phase, students were asked to check the level of their writings so that they could well understand what they had learned about new strategies, skills and what needed to be reviewed. Self-evaluation activities included self-questioning; debriefing discussions after strategies practice; learning Blogs in which students recorded the results of their learning strategies applications; checklists of strategies used; and open-ended questionnaires in which students expressed their opinions about the usefulness of particular strategies. We carried the evaluation activities through three stages: self-evaluation, peer-evaluation and teacher evaluation.

5. Expansion: This phase provides the participants with opportunities to exercise higher order thinking skill. In this phase, students were inspired to apply the strategies that they thought to be the most effective; to transfer new strategies to different context; and to devise their own individual combinations and interpretations of metacognitive strategies. This phase aimed to help students to practice, consolidate, evaluate, automate and internalize the strategies that they just learned which mainly include self-planning, self-monitoring and self-evaluation.

Writing composition

Composition is another word for writing the act of writing or the piece of writing that results. It also refers to what something is made of. The teacher will teach students to write a composition as explained below:

Metacognitive strategy

Metacognitive strategy	Refers to methods used to help students understand the way they learn; in other words, it means processes designed for students to 'think' about their 'thinking'.
Self-planning	Planning strategy is one of the most important strategies that one can use to improve writing task. Using planning strategy, students are able to think about what their goals are and how they can accomplish those goals efficiently and effectively of writing the composition. Using planning strategy allow students to arrange and sequence of operations and steps for writing the composition as example brainstorming technique.
Self-monitoring	Monitoring strategy as a writing technique in their EFL (English as a foreign language) writing classes to assist learners in overcoming their writing difficulties. Isaacson and Fujita(2006) First proposed self-monitoring to use as a writing technique. The term self-monitoring strategy means that students are provided with opportunities to monitor their writing task. Monitoring strategy can improve students' EFL writing ability, identify when to move to the next step and Identify difficulties and mistakes, how to overcome the difficulties and errors, and maintain the sequence of operations and steps during writing composition.
Self-evaluation	Evaluating strategy refers to evaluating the outcome of writing task, how well the writing task will be accomplished, and the strategies used during the learning process. Evaluating strategy will give students to evaluate the effectiveness of the plan that used in writing task and its implementation, assess how to address obstacles and errors and to judge the efficiency and accuracy of results of writing task. Students can evaluate himself and the teacher evaluate the students task to give suggestions.

Title

The teacher will explain for the students the importance of title as a word or phrase given to a text to identify the subject, attract the reader's attention, and forecast the tone and substance of the writing to follow. And the important features of title should be:

1.Keep it simple, brief and attractive
2.Use appropriate descriptive words
3.Avoid abbreviations and jargon

The Importance of Computers in our Lives

Introduction andTopic Sentence

Your introduction should arouse the interest of your examiner, and make he/she so interested in your story that he/she want to continue reading it.

Your introduction should have the following important features:

1. Should be interesting enough to grab your examiner's interest
2. Should prepare your examiner for what is to follow
3. Should be concise and not too lengthy
4. Should be write a significance thesis statements

The teacher will guide the students to write a good introduction and the teacher will know the main content of introduction and to be aware how to write an introduction.

Throughout human existence, man has strived to develop and use new and more beneficial tools in order to improve his standard of living. The modern computer is the most recent of these life changing tools. In existence for only a few decades, personal computers have had a major impact on modern society, especially in the fields of commerce and education. It is now impossible to imagine engaging in business or learning activities without computers. Being a major part of everyday life, the computer has totally changed the way we work and the way we study.

The Body

You should remember that the body is where the majority of your marks lie, thus it is important for you to plan before writing your composition. If you do not plan before writing, you are likely going to forget some very important points when you're writing your actual story.

Take note of these key points when you are writing:

1. Keep your sentences short and simple so that your readers can easily understand you
2. Use vocabulary words and phrases, but make sure that they are appropriate. Avoid the use of bombastic words and irrelevant complex expressions.
3. Never use a word that you do not thoroughly understand or know how to spell.

The students should be aware how to write a good body of task by following teacher instruction, the students should know the main content of body.

To start with, the speed and memory capacity of computers have changed the business world. The business world has become increasingly competitive, with speed of the utmost importance. Before computers, tasks such as book-keeping, liaising with clients, suppliers and manufacturers and filing information were time-consuming and inefficient. Furthermore, nowadays software has revolutionized accounting practice, electronic messages are transmitted across the globe in seconds, and countless millions of bytes of data can be stored and accessed almost immediately.

Secondly, education has also benefited from the computer's ability to manage vast amounts of information. Scientists and scholars use computers for calculations and simulation programs that would have been impossible in the past. In addition, students use computers and in particular the internet to research and gather information for projects much more quickly than in the past. Moreover, students can engage in self-study programs, learn together with students from around the world or use computers to study at home.

Summary and Conclusion write a composition with details

In this activity you will finish your task.

Instructions:

1. Write the final paragraph of your writing task.
2. Restate the main idea of your task.

The students will be aware how to write a good conclusion after following teacher instructions, and the main content of conclusion.

After you have finished with your composition, it is important that you take a minute to read over what you have written. Check and evaluate your composition and edit where necessary. Some factors to consider when you are checking your composition: Are there mistakes in grammar, spelling and punctuation? How appropriate are the words used? Are there mundane words which can be replaced with better words?

To conclude, computers undoubtedly make a significant contribution in terms of business activities and educational conditions. The computer has been and continues to be one of the most important and influential inventions of all humankind. The future of humankind is now a history which includes the computer.

After the teacher teach the students how to write a task by using metacognitive strategy the student will be able to change the wrong scheme in their mind and they will change from assimilation to accommodation depend on Piaget 's theory. As an example, when the teacher explains the student how to write an introduction and the main content of introduction, they will know the best way to write an introduction and change the assimilation scheme to be accommodation scheme.

MATERIALS AND METHODS

The author will unfold an empirical study of metacognitive strategies-based writing instruction in EFL writing. What are the effects of metacognitive strategies on Jordanian EFL secondary school learners' writing performance?

Hypothesis 1: The students who are trained to use metacognitive strategies in their writing compositions perform significantly better than the students who are not exposed to metacognitive strategies approach model.

Subjects

The subject samples were randomly chosen from the students of the year of 2016 who consisted of 44 secondary school students in Almazar- Irbid, Jordan. One class of 44 students with 22 comprised the experimental group; another class of 22 students served as a control group. In order to control the elements of teaching research, the researcher taught both the experimental and control groups. The experimental groups (EG) received metacognitive strategies-based writing instruction whereas the control group (CG) received only the routine writing instruction (Product Approach). In order to guarantee the reliability and validity of the experiment, both EG and CG were not informed about the experiment.

Instruments

In this empirical study, the author applied comparatively various instruments which included three writing tests; writing The details are presented in following sections. Writing Tests All subjects from the experimental and control groups were required to take one pre-test, one mid-training test (post-test one) and one post- writing test (post-test two) to determine whether there were gains in writing performances over a semester. The test provided data for measuring subjects' writing performance between groups.

RESULTS

Research Findings in Relation to Research Question 1

In the following sections, the results obtained from the pre- and post-test(s) writing task were analyzed and other non-parametric analysis were presented in the tables of general writing proficiency, accuracy and complexity in the pre- and post-tests writing

Table 1 below presents the descriptive statistics on the overall scores of general writing proficiency of the participants in both groups. The result showed the mean value of the overall scores of the participants in +MST group and –MST group in the pre-test, immediate post-test and delayed post-test. The overall scores of the participants are reported based on the means, standard deviation, and standard errors. In the pre-test the results showed that (M=5.55, SD=1.335, SDE=.258) for the experimental group (+MST) and (M=4.59, SD=1.008, SDE=.215) for the control group (-MST). Simply, the results showed that the mean scores of two groups are not meaningfully different according to their performance in writing composition at the beginning of the study.

Table 1. Descriptive statistics: General writing proficiency

	Group	N	Mean	Std. Deviation	Std. Error
Pre-test	+MST (Exp.)	22	5.55	1.335	.285
	-MST (Contr.)	22	4.59	1.008	.215
	Total	44			
Immediate Post-test	+MST (Exp.)	22	13.23	1.660	.354
	-MST (Contr.)	22	5.77	1.602	.341
	Total	44			
Delayed Post-test	+MST (Exp.)	22	16.27	2.373	.273
	-MST (Contr.)	22	6.45	1.565	.334
	Total	44			

Note. +MST: Plus Metacognitive signified experimental groups, -MST: Minus Metacognitive signified Control groups.

Moreover, at the intermediate stage where another test was given to the participants (intermediate post-test), the results obtained from experimental group are illustrated as (M=13.23, SD=1.660, SDE=.354) while for the control group (-MST) the result showed (M=5.77, SD=1.602, SDE= .341). The results obtained from the delayed post-test which was conducted at the end of the intervention program are reported as (M= 16.27, SD=2.373, SDE=.273) for +MST group (experiment group) and (M=6.45, SD=1.565, SDE=.334) for –M group (control group). The results obtained through immediate post-test and delayed post-test as presented above showed that there is adifference in the mean scores between the groups of the participants. The descriptive statics using means and standard deviation in Table 1 above was used here only to visualize the results statistically without showing the effect size of the changes between and within the group.

Between-group Findings (the Mann-Whitney U test)

Table 2 Between-group overall score of Pre-Test

Group	N	Mean Rank	U value	z value	p value	r value
+MST (Exp.)	22	27.48	132.500	-2.655	.008	0.405
-MST (Cntr.)	22	17.52				
Total	44					

*P< 0.01

In order to establish the homogeneity of the two groups in terms of their overall performance in writing, the Mann-Whitney U test, was carried out. As illustrated in table 2, the Mann-Whitney U test has indicated that there was no significant difference in the overall score of the pre-test between +MST and –M groups (U = 132.500, z = -2.655, p =.008, r = -0.405). The mean values score margin between the two groups is not reasonable. Meanwhile, the effect size of r = -0.405 which indicates a small effect. Therefore, the r value was an indicator that effect between the two groups is not a considerable one considering the threshold of Cohen's benchmark of large effect size.

Table 3 Between-group overall scores of Immediate Post-tests

Group	N	Mean Rank	U value	z value	p value	r value
+MST (Exp.)	22	33.45	1.000	-5.705	.000	-0.870
-MST (Cntr.)	22	11.55				
Total	44					

*P< 0.01

Table 3 presents the results obtained from the immediate post-test. This test was conducted to examine if there is a significance difference between the group that received metacognitive instructions (Experimental group) and group that did not received metacognitive instruction (control group) at the intermediate stage of the training program. Also the Mann-Whitney U test was utilized here to illustrate the effect size of the differences between two groups. The results revealed that there was a significant difference in the overall scores of the immediate post-test between +MST and –M groups (U =1.000, z = -5.705, p = 0.000, r = -0.870). The difference observed in the mean rank value though comparing the two groups' performance revealed that the difference was significant. Meanwhile, the r value (r = -0.870) showed that the effect was a medium to a large.

Table 4. Between-group overall scores of Delayed Post-tests

Group	N	Mean Rank	U value	z value	p value	r value
+MST (Exp.)	22	33.50	.000	-5.720	.000	-0.872
-MST (Cntr.)	22	11.50				
Total	44					

*P< 0.01

The delayed post-test was the final test administered to both +MST and –M groups. The aimed of conducting this test was to examine the impact of using metacognitive strategies on the experimental group, and its effects on the writing performances of EFL students. Table 4 presents the results obtained from the delayed post-test. The Mann-Whitney U test results revealed that there is a significant difference in the performance between +MST and –M groups (U =33.50, z = -5.720, p = 0.000, r = -.872). Henceforth, by comparing the mean rank value between the performance of the two groups, it was found that the difference was significant (+MST group m=30.45, while –M group m=14.55) the wide margin between two mean groups was an indicator of impact of the metacognitive instructions received by the experimental group (+MST) on over control group (-MST) who did not receive such treatment during the course of conducting this study. Meanwhile, the r value (r = -.872) showed that the effect was a medium to a large.

Within-group Findings (Wilcoxon Signed-Rank test)

In order to ascertain whether the changes exhibited by groups in response to the treatment over time were statistically significant, the Wilcoxon signed-rank test, the non-parametric Counterpart of dependent t-test was used. Data based on the overall scores of +MST group and -MST group were analyzed separately using the Wilcoxon Signed-Rank test. First of all the overall performance of +MST group was analyzed by comparing their scores in pre-test with that of immediate post-test scores as presented in table 5. Similarly, the results presented in table 6 showed the difference between the scores of pre-test compared with post-test from within the experimental group (+MST). In the same vein, Wilcoxon Signed-Rank test was also used to measure the performance of the participants in the control group by comparing their overall scores in the pre-test with that of immediate post-test as well as comparing pre-test and delayed post-test. The aim of conducting this analysis was to examine the effect of changes observed as result of teaching students although, without metacognitive strategies instructions. The results of the writing in two groups were compared by using independent sample t-test statistical procedure.

Table 5. Within-group overall scores of +MST group (Pre-test with immediate post-test)

	N	T value	z value	p value	r value
Before	22	0.000	-4.115	0.000	0.628
After	22				
Total	44				

*P< 0.01

The Wilcoxon Signed-Rank test showed that there was a significant difference in the gain score of the experimental groups 'performance in the pre-test (T = 0.00, z = -4.115, p= 0.000, r = 0.628) before and after metacognitive instruction. The results clearly showed that instruction with metacognitive strategies had a significant effect on the performance of the experimental students in their writing composition. The p value (p=0.000) indicated that the relation is statistically significant. According the results +MST group made significant progress from the pre-test to the post-test. The effect size of r = 0.628 represented a large effect on the students use of metacognitive strategies in writing within this group.

Table 6. Within-group overall scores of +MST group (pre-test with delayed post-test)

	N	T value	z value	p value	r value
Before	22	0.000	-4.129	0.000	0.630
After	22				
Total	44				

*P< 0.01

Table 6 demonstrates the results obtained by comparing the overall scores of the participants in the experimental group (+MST group) derived from within pre-test and delayed post-test. The Wilcoxon Signed-Rank test was also used to examine the difference in the gain score and to find the effect size metacognitive strategies on the writing composition performance of the experimental group. The results in the table showed that (T = 0.000, z = -4.129, p = 0.000, r = 0.630) before and after metacognitive instruction. The result clearly revealed that metacognitive instructions had a significant effects on the experimental students in their over scores in writing composition.

The effect size of r = 0.630 represents a large effect on the students use of metacognitive in writing. However, the results presented in table 5 and table 6 above clearly revealed that there were statistically significant differences in performance of experimental group (+MST group) before the intervention treatment (pre-test) and after the intervention post-tests (immediate and delayed) (p = .000> .008, p = .0000 > .001 (p is significant at 1% p= 0.001). the effects of r value are (r = -0.627, r = -0.630) which indicated a large effect. The also showed that experiment group participants had improved tremendously in the end of course. That metacognitive instruction had a great impact on the writing performance of EFL learners at Jordanian secondary schools.

Table 7. Within-group overall score of -MST group (pre-test with immediate post-test)

	N	T value	z value	p value	r value
Before	22	0.000	-3.219[b]	0.001	0.490
After	22				
Total	44				

*P< 0.01

However, a similar analysis was run to examine if there is a significant difference in the gain score of the control group (-MST group) who did not received metacognitive instruction. To achieve this, Wilcoxon Signed-Rank test was utilized to compare between the gain score of -MST group before and after the treatment. Table 7 showed that there was a significant difference in the gain score of -MST students' performance in the writing composition performance (T = 0.000, z = -3.219, p = 0.000, r = -0.490). The result clearly showed that the teaching of writing using non-metacognitive instruction had also a significant impact on –M group performance in writing. The effect size of r = 0.490 represents a small effect, thus indicating that the effect of non-metacognitive method can also improve the writing of EFL learners in Jordanian high schools.

Table 8. Within-group overall scores of -MST group (pre-test with delayed post-test)

	N	T value	z value	p value	r value
Before	22	0.000	-3.680	0.000	0.561
After	22				
Total	44				

*P< 0.01

Similarly, results in Table 8 revealed the difference between the gain score of –M group pre-test and post-test. The Wilcoxon Signed-Rank test was employed to examine if there were statistically significant differences from within –M group performance in writing composition. The results are presented as (T = 0.000, z = -3.680, p = 0.00, r = -0.561). The results clearly described that there is significant difference between the gain score of the –M group before and after the teaching period based on the design of this study. The effect size of r = -0.561 indicated a small effect while the p value is significant at 1 % (0.001).

Discussion of Findings in Relation to Research Question 1

As mentioned earlier the first overarching objective of this study is to examine the effects of metacognitive strategies on EFL students' performance in writing composition. In line with this objective, the results obtained after series of analysis as enumerated above from non-parametric analysis (descriptive statistics, Mann-Whitney U test and Wilcoxon Signed-Rank test) which revealed various findings that can be associated with several studies reviewed in this study. Hence, the results in the present study as mentioned above found that there is a significant difference, the wide margin (+MST group m=33.50, while –MST group m=11.50) between two mean groups in delayed posttest as indicated in the table 5. The results which indicated that the use of metacognitive instructions has effectively increased the performance of the experimental group (+MST) over the control group (-MST) who did not receive such treatment during the course of conducting this study. However, the effect was a medium to a large as indicated by the r value (r = -0.872). This finding had a similar result as (Sahli and Abderrahim, 2018) who discovered that the written compositions of the experimental group are highly improved compared to the control group and Yanyan (2010) who reveald metacognitive knowledge can empower EFL learners in their English writing and cultivate their learning autonomy in English learning. Moreover, the results obtained from the Wilcoxon Signed-Rank test clearly showed that metacognitive instructions had significant effects on the experimental students in their overall scores in writing composition. The effect size of r = -0.630 represents a large effect on the students use of metacognitive in writing. The findings of this study agreed with the results obtained by Panahandeh and Asl (2014) study in which similar model was adopted that is 'CALLA model'. Their study aims to investigate the effect of planning and monitoring as metacognitive strategies on Iranian EFL learners' argumentative writing accuracy. In this particular study the results of T-Test indicated that there was a positive effect on the experimental group's writing performance. However, this study supported the findings of Sindhwani and Sharma (2013) who pointed out that to become self-directed learners, students must learn to assess the demands of the task, evaluate their own knowledge and skills, plan their approach, monitor their progress and adjust their strategies as needed.

The results showed in Table 2 The first, analyzing the differences (overall score), claims there is no difference in overall score between control and experimental. The second, using analysis of the Mann-Whitney U test, finds a difference in overall scoretest as shown in table 3. The findings confirmed with Piaget theory (accommodation) student change their mental scheme, some students have no change in their writing performance that conforms with Piaget theory (assimilation) student didn't change their mental scheme. But in the delayed posttest as seen in table 4.5 the students developed their writing performance and the results increased, thus supported Vygotsky theory of constructivism ZPD; students acquire new knowledge and ideas from students and teacher interaction in the classroom.

Conclusion

CALLA strategy is good to be used in teaching writing specially in teaching composition because it has some stages that should be applied in the process of teaching and learning. This condition makes a various kinds of teaching that leads the teaching-learning process is interesting and lively not monotonous. Of course, it will increase the student' writing ability. Based on the findings, derived from the results of this empirical study, the following conclusions were reached: The effectiveness of CALLA approach in improving students' writing achievement. CALLA students with enjoyment, pleasure, enthusiasm and variation which were significant enough to affect the students' achievement positively, and CALL improved students' achievement satisfaction.

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