THE EFFECTIVENESS OF A PROPOSED PROGRAM TO DEVELOP META-LEARNING AWARENESS AND ITS EFFECT ON THE WRITING ACHIEVEMENT OF SAUDI EFL STUDENTS AT TAIF UNIVERSITY

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Abstract.Writing a composition is perhaps the most difficult part of the writing process for EFL students. Writing is an intricate and complex task and the most difficult of all the language skills to acquire. This study aims to investigate the effectiveness of a proposed program to develop the EFL learners` meta-learning awareness in order to help them improve their writing skill. Moreover, this study aims to find the differences between the experimental group and the control group before and after the treatment. The participants were university students who were selected from a large sample and divided into an experimental group and a control group based on a writing production pre-test and the meta-learning questionnaire. The study follows a quasi-experimental method and its sample consists of 127 female students who are divided into two groups; the experimental group consists of 64 students and the control group consists of 63 students. The research proceeded for the duration of three months, including the proposed program. Students` meta-learning awareness was measured using a questionnaire, while their writing achievement was measured by a writing test, both prepared by the researchers. Translation-back-translation and total item correlations methods were used to evaluate the psychometric properties of the 'meta-learning awareness questionnaire of writing' (MAQW). Its findings show statistically significant differences between the experimental group and the control group on the post-test writing test as well as the meta-learning awareness questionnaire, indicating a significant improvement in the writing skill of the experimental group. It goes on to show that there are statistically significant differences between the pre-test and post-test results of the experimental group on the writing test and the meta-learning awareness. This confirms that the writing skills of the experimental group improved after participating in the program, as seen in the post-test. In light of these results, the study offers a number of suggestions that may contribute to raising awareness regarding the importance of teaching meta-learning awareness strategies to students who have difficulty in writing.

Keywords: Meta-learning awareness, female Saudi EFL students, writing achievement, training program.

1. LITERATURE REVIEW

Introduction

In Saudi Arabia, for many years, teaching writing has consisted of the rote memorization of a weekly list of words or a text followed by a dictation task. Teachers generally teach writing the way they were traditionally taught and changing the many fossilized beliefs and practices on teaching writing seems to be a difficult and challenging task. Many researchers have suggested alternative ways to understand and teach writing and have insisted that teaching writing should be considered as a holistic endeavor and task, which is one of the essential aspects of every language (Celce- Murcia, 1991). Most elementary schools in Saudi Arabia, and the Arab world in general, teach writing as a subject isolated from other language skills and rote memorization is regarded as the key to its mastery.

Teaching English as a Foreign Language has always been a challenging task. By virtue of their own personal efforts, some students manage to achieve a remarkably good level of fluency in spoken English. However, they fail in the other active and output skill, i.e. writing. Most Arab students usually have great difficulty in their writing skills (Al-Sawlha & Chow, 2012, Rababah, 2003). Saudi students generally suffer from problems such as the fact that most of the errors are related to, for instance, the verb phrases, verb formation, tenses, and subject-verb agreement. Furthermore, the findings indicate that subject-related difficulties such as the vocabulary load, structure, and spelling are the most demotivating factors for the students. Most Arab students have also difficulty expressing themselves adequately and competently, even with usual everyday tasks and teaching English may occasionally consist in merely translating from the source language to the target language and vice versa.

In writing tasks, students are usually left alone with revising and/or making drafts of their work, without receiving any guidelines or feedback. Teachers generally do not follow up the work of their students to make sure they have improved. There also seems to be a common consensus and, consequently, practice that discussing, or commenting on, students' work is best reserved for the pupils in the lower ESL levels and not to those in the higher levels. Such comments are largely limited to the mechanics, grammar, and vocabulary. Under certain circumstances, this practice might work as it could potentially contribute to, and develop, students' autonomy, independence and self-reliance. Most of the time, however, it hampers their learning. As a result, many of them seem to be genuinely unmotivated, inactive, and completely uninterested in learning. They are often not very good at thinking for themselves when they are given a written exercise and have to work on their own as well. This is due to that fact that in the past they were not required to become creative and skillful writers. This study focuses on developing a training program to make students aware of their learning process, in general, and the writing process, in particular.

Meta-learning Awareness

Meta-learning is becoming increasingly important in current and future research (Jankowski, 2012). The term 'meta-learning' was first used by Biggs (1985) to describe the condition where students are aware of their learning process and are able to monitor and take control of this process. Neton, Owens and Clark (2004) define meta-learning as a kind of awareness, as opposed to the subject's *knowledge*. According to this definition, learners' awareness of their learning process involves knowing the expectations of the discipline and the demands of a given learning task. In this context, meta-learning depends on the learners' perceptions of learning, their epistemological beliefs, and their learning processes and academic skills, summarized here as 'the learning approach'. A student who has a high level of meta-learning awareness is capable of assessing the effectiveness of his/her learning approach and regulate it based on the demands of the learning process. On the contrary, a student who has a low level of meta-learning awareness is not able to reflect on his/her learning approach or the nature of the learning set (Norton, et al., 2004).

In the same vein, this concept implies that a learner should have knowledge of how learning takes place, be motivated to deal with and manage it, and also be able to regulate that learning (Jackson 2003). Meta-learning, in short, is a concept that describes the process of becoming aware of oneself as a learner and applying this knowledge towards becoming a more efficient and successful learner. Meta-learning can help develop a student's conception of a subject and, as a result, their approach to learning that subject (Winters, 2011).

According to Meyer et al, (2015), a meta-learning activity can successfully focus on a specific threshold concept in order to benefit the maximum number of students in many different ways, including a positive reinforcement of self, a

change in the conception of what "learning is" and to self-initiate change.

Most of the studies on meta-learning and metacognition have focused on the undergraduates with reflective and active awareness of the learning practices and achievements. In other words, meta-learning has been considered to be useful, indeed essential, for the learning achievement of undergraduates (Biggs, Kember, & Leung, 2001, Veenman & Verheij, 2003, Wisker, Robinson, Trafford, Lilly and Warnes, 2004). Jackson (2004) believes that meta-cognition means the awareness of how one learns while meta-learning describes the critical, reflective, and self-evaluative process of being aware of one`s own learning needs, problems and achievements.

Biggs et al, (2001) and Wisker et al, (2004) put forward the idea that context and interaction are two crucial elements in encouraging successful learning practices. Meta-learning, therefore, involves reflection, learning awareness, and the ability to express and articulate that learning, and is an important goal alongside that of the successful completion of a PhD and the development of postgraduate transferable skills. Wisker et al (2004) go on to add that meta-learning is an essential element in the postgraduate research-as-learning success. Jackson (2004) notes that meta-learning should be regarded as a sub-concept within meta-cognition and self-regulation. Meta-learning activities motivate students to integrate and move beyond the previous non-conscious approaches to learning and enable teachers to know how they can facilitate students' development as independent learners (Ward & Meyer, 2013).

Meta-learning and writing achievement

Writing achievement could be defined as the ability to express one's ideas in written form in a second or foreign language with reasonable accuracy and coherence (Celce- Murcia, 1991). In spite of the existence of an extensive knowledge base about what works, the question of how to improve the students` achievement remains an open and controversial one (Carpenter, 2000). Teaching L2 writers how to pay attention to errors and equipping them with self-editing and self-correction strategies are valuable components of a curriculum that can serve L2 writers well in the long run (Celce-Murcia, 1991). It is now widely known that ESL/EFL language learners show great difficulty especially in writing (Xu and Zhang, 2015) and lower scores in composition classes (Ohlrogge, 2009).

Ward & Meyer (2010) stipulate that as a conceived benefit of the meta-learning experience, the majority of students demonstrate an increased level of control over their learning of threshold concepts, and that the meta-learning activity may be able to provide the basis for study support intervention, tailored to the individual student's needs as identified in their self-reported learning profile and reflective essay.

Another study (Ward & Meyer 2013) indicated that meta-learning activities encourages students to interrogate and move beyond previously unconscious approaches to learning and enables the educators to understand how they might be able to facilitate students' development as independent learners.

More importantly, the study of Shakra (2013) has indicated that writing teachers may mistakenly assume that learners have reached their full potential on a writing revision at a point much earlier than expected. Therefore, the teacher's presupposition of the point at which the learner has truly understood the writing error needs to be revised, since learners seem to become cognitive participants at a point much later than the students claim they have understood the task in hand. Later, the theoretical implications of how giving 'feedback' may be an area of great potential for enforcing learner autonomy are discussed.

According to Al-Khsawneh (2010), students believe that the teaching method and the academic environment are the main reasons for their weakness in English. This weakness stems from either the lack of student motivation or the absence of interest and concern on the side of the teacher. Because of the isolated culture, many learners choose to use their mother tongue. Teaching English consists primarily of the use of Arabic in English classes, writing done in Arabic, teachers' generally low proficiency in English, and the absence of writing practice in educational institutions. In addition, most learners have limited vocabulary.

Academic writing, in all educational institutions, is of paramount importance in the curriculum at any stage of the learning process or the assessment period. In a research on writing at the university level, Fukao & Fujii (2001) concluded that writing was very important in assessing the degree of success in mastering the curriculum, for it can showcase the extent of a student's learning progress. As for language teachers, a student's writing will help to determine how much comprehension of the course content has occurred upon the completion of a particular course. Bacha (2002) shares the same opinion when he includes cohesion, summarization, and text organization

skills as well into the definition of writing skills. In addition, Manchón & de Larios (2007) believe that writing requires the ability to solve linguistic problems and this helps students in developing their second language proficiency. Unfortunately, most students are unaware of the importance of writing in academic achievement, in their education, and in their careers. Therefore, it is necessary to make students aware of the need to learn how to write efficiently and the benefits that come with a successful writing process (Marton and Booth, 1997).

Statement of the problem

Studies have shown that students' major problems in writing in Saudi Arabia are the following: Students seem more concerned with general comprehension than the details and as long as they can get their point across and communicate the overall idea they do not pay great attention to spelling, punctuation or smaller grammar mistakes. Punctuation and spelling are especially difficult to get the students to pay attention to. Students often have the knowledge, but fail to apply it. For instance, they may write something correctly in one point in a paragraph but incorrectly in another. Spelling is a big problem and most of the students self-identify it as their biggest problem in writing. This seems to come from a perception that spelling is not very important, and studies show that by focusing on spelling in class activities, having spelling quizzes and games, and emphasizing that points will be lost for spelling errors, significant improvement will be seen. Once they see it as important and indispensable for their grades, they work better and harder and improve significantly.

Teachers of Saudi students have always struggled with the question of how to improve students' writing. Writing, as mentioned earlier, is an intricate and complex task and probably the most difficult of all language skills to master. According to Mourtaga (2004) and Zughoul and Husain (1985) there are many challenges to teaching English writing to Arab learners and it seems that they are more liable to committing errors.

One reason is that students are not demanded to write very often and whenever they do write their writing is classroom-bound. The most important factor in writing tasks is that students need to be personally involved in order to make the learning experience of great and meaningful value. Encouraging student participation in the writing tasks, while at the same time refining and expanding their writing skills, requires a certain pragmatic approach. Therefore, it is important to investigate this problem and, if possible, find remedial procedures for improvement. Moreover,

researchers have consistently observed that most students are not well-equipped with the study skills such as self-regulation in learning, the locus of control, and useful learning styles, and in most classes the strategy of student-centered teaching is totally neglected or sidelined.

For the above reasons, researchers here aim to do this experimental research because it is necessary to consciously train students to be more independent learners by raising their meta-learning awareness of their learning. This training includes raising awareness about meta-learning through reading textbooks, lectures on meta-learning, writing exercises, and individual consultations.

The research hypothesis

This study puts forward the following hypotheses:

1. There are significant differences between the scores of the experimental group and the control group on the post-tests of meta-learning awareness and writing achievement.

2. There are significant differences between the mean scores of the pre- and post-tests of meta-learning awareness and writing achievement for the experimental group.

3. There are no significant differences between the mean scores of the post-tests and the follow-up of meta-learning awareness and writing achievement for the experimental group.

Research objectives

This study aims to investigate the effectiveness of a program for developing EFL students` meta-learning awareness and improving their writing achievement. In addition, it seeks to evaluate the students' meta-learning awareness level and the reliability and validity of the meta-learning questionnaire. Moreover, it intends to make students aware of themselves as learners and to develop and raise their meta-learning awareness.

Importance of the study

The importance of this study can be explained from several different perspectives. First, it studies the effectiveness of the meta-learning awareness training program in improving EFL students` writing achievement. Second, it contributes to a larger body of knowledge related to meta-learning. Third, it improves learner achievement. And finally, the researchers believe that the results of this experimental research can provide practical information to teachers in formal educational settings.

2. METHODOLOGY

Study Sample

The Pilot study

Ninety two Saudi students were randomly selected from EFL preparatory non-English undergraduate students, level 1, for the pilot study to determine the time required to complete the questionnaires and to ensure the validity and reliability of the tools.

Participants

To answer the research questions, 127 EFL preparatory non-English undergraduate students participated in the study. They studied English for 12 hours per week. The subjects were all Saudi females and native speakers of Arabic. They were divided into two groups, the experimental group (64 students) and the control group (63 students). All of them had received 6 years of EFL instruction in grades 6-12 prior to their admission to Taif University. The experimental group was exposed to the meta-learning awareness program, but the control group was not. Before teaching, students in both the experimental and the control groups were pre-tested by taking the same meta-learning awareness questionnaires and writing tests.

Instrumentation

1. The meta-learning questionnaire

The meta-learning questionnaire was devised by the researchers for two reasons: first, to meet the needs of English undergraduate Arab students and, second, because of the lack of the relevant tools in the Arab region. The questionnaire included 69 items. However, based on the item correlation, 14 items were deleted and 55 items remained, which were distributed into 5 subscales. Subscale 1 (awareness of learning situation) includes 21 items from 1-21. Subscale 2 (educational situation control) includes 7 items, from 22- 28. Subscale 3 (meta-motivation) involves 15 items, 29-43. Subscale 4 (meta-emotion) consists of 7 items, from 44-50. And subscale 5 (meta-cognition) includes 5 items, from 51-55.

This questionnaire was given to 92 students as a pilot study to determine its reliability. The Cronback alpha was 0.92, which is a high reliability rate from which valid conclusions can be made. To obtain more reliable and more valid answers from the students, and since they were not English undergraduates and were native speakers of Arabic, the researchers translated the questionnaire into Arabic. The Arabic version of the questionnaire was applied to the samples to avoid any language-related confusions and ensure real responses. The participants were asked to fill out the questionnaire anonymously, in order to be able to better evaluate their meta-learning awareness of writing in English. In addition, a program was proposed to the EFL classroom to improve their writing. The questionnaire would enable the students to evaluate their beliefs and attitudes about learning and their competences in those aspects of the learning process that are relevant to their writing achievement.

The validly and reliability of the meta-learning questionnaire in the current study

The corrected item-total correlation ranged from 0.39 to 0.70 (p < 0.01), which shows adequate item validity. The corrected item-subscale 1 (awareness of learning situation) correlation ranged from 0.31 to 0.63 (p < 0.01). For Subscale 2 (educational situation control) the correlation ranged from 0.53 to 0.75 (p < 0.01). For Subscale 3 (meta-motivation) the correlation ranged from 0.46 to 0.71 (p < 0.01). For Subscale 4 (meta-emotion) the correlation ranged from 0.51 to 0.68 (p < 0.01). For Subscale 5 (meta-cognition) the correlation ranged from 0.31 to 0.89 (p < 0.01). The correlation between the factors ranged from 0.33 to 0.68, while the correlation between the factors and the total score ranged from 0.62 to 0.89. (p < 0.05 to p < 0.01).

The internal consistency was high for the total questionnaire ($\alpha = 0.92$) as well as for Subscale 1 ($\alpha = 0.79$), Subscale 2 ($\alpha = 0.76$), Subscale 3 ($\alpha = 0.86$), Subscale 4 ($\alpha = 0.68$) and Subscale 5 ($\alpha = 0.78$). The mean total score was 21.72 (S.D. = 22.19). The mean for Subscale 1 was 79.934 (S.D. = 8.33), 27.98 (S.D. = 3.68) for Subscale 2, 58.70 (S.D. = 7.95) for Subscale 3, 27.92 (S.D. = 4.12) for Subscale 4, and 18.15 (S.D. = 3.28) for Subscale 5.

Table 1: Internal consistency for the meta-learning questionnaire

Aspects of Meta-learning awareness	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Total
Awareness of learning situation	1					
Educational situation control	0.581**	1				

Meta-motivation	0.635**	0.683**	1			
Meta-emotion	0.558**	0.384**	0.656**	1		
Meta-cognition	0.496**	0.332**	0.395**	0.507**	1	
Total of meta-learning awareness questionnaire	0.874**	0.747**	0.887**	0.764**	0.622**	1
** Correlation is significant at the 0.01 level (2-tailed).						

Table 1 shows that there are positive correlations within the meta-learning strategies for the five subscales ranging from 0.332 – 0.683, which shows the high internal consistency of the subscales of the 'meta-learning' strategies questionnaire in measuring students' meta-learning strategies.

2. The writing test

The writing test was prepared by the researchers according to the students` levels. The participants were asked to write ten-sentence paragraphs and describe themselves before and after the study, to observe the effectiveness of the intervention. To analyze the improvement in the learners` performance after the treatment, the results of paragraph writing of the pre-intervention and post-intervention have been compared.

3. Meta-learning training program

A total of 127 female Saudi learners of English as a foreign language participated in a 10-week study of a pretest/post-test program. In each of the 2-hour sessions, of a total of 20 sessions, the participants were asked to read some words or a paragraph and then re-write it individually without looking back at the original words or sentences. During the treatment period, the participants received different pre-writing vocabulary practices. The experimental group, consisting of 64 students, practiced individual words and sentences while the control group of 63 students

worked according to the usual syllabus. The tools and aids used in the program were word lists and sentences. This meta-learning program tries to offer a variety of tools so that all types of learners can benefit from them.

The program did the evaluation through the pre-tests and post-tests, comparing the scores of the experimental and control groups and the follow-up in developing English language writing one month after the program ended. The program was based on the meta-learning awareness strategies (MAS) prepared by the researchers. The questionnaire was divided into five factors: 'awareness of learning situation' (items 1 through 21), 'educational situation control' (items 22 through 28), 'meta-motivation' (items 29 through 43), 'meta-emotion' (items 44 through 50), and meta-cognition (items 51 through 55). The tool is reproduced in Appendix B. The researchers tried to make the learners aware of the contribution of these strategies to their writing during the application of the program and motivate them to use these strategies in their process of learning writing.

Data collection

The data was collected in the first (fall) semester of 2016 and was analyzed using the SPSS software (version 18.0). Descriptive statistics (the mean and standard deviation) was calculated and the t-test was used.

3. RESULTS

Table 2: T-test for the differences between the scores of the control group and experimental group on the pre-test of the 'meta-learning strategies' questionnaire, its factors, and writing test

Meta-learning Awareness factors	Group	N	Mean	Std. Deviation	T	df	Sig. (2-tailed)
Awareness of learning situation	control pre	63	77.095	8.579	0.604	125	.547
	experimental pre	64	76.188	8.353			
Educational situation control	control pre	63	26.222	3.124	1.526	125	.129
	experimental pre	64	27.141	3.634			
Meta-motivation	control pre	63	54.762	7.455	1.209	125	.229
	experimental pre	64	56.313	6.996			
Meta-emotion	control pre	63	26.032	4.876	1.496	125	.137
	experimental pre	64	27.172	3.632			

Meta-cognition	control pre	63	16.444	2.227	0.249	125	.804
	experimental pre	64	16.328	2.971			
Total of Meta-learning Awareness factors	control pre	63	200.556	21.863	0.697	125	.487
	experimental pre	64	203.141	19.915			
Writing test	control pre	63	4.825	1.509	0.012	125	.990
	experimental pre	64	4.828	.9182			

Table 2 shows that there were not significant differences between the control and experimental groups on the pre-test of the meta-learning strategies, its factors, and the score of the writing test.

Table (3) T-test for the differences between control and experimental groups of the post-test on the meta-learning strategies, its factors and writing test

Meta-learning awareness factors	Group	N	Mean	S. D	t	Df	Sig. (2-tailed)	η2	
Awareness of learning situation	control post	63	78.016	10.115	2.974	125	0.004	0.07	
	experimental post	64	82.344	5.618					
Educational situation control	control post	63	26.540	4.008	5.003	125	0.001	0.17	
	experimental post	64	29.828	3.379					
Meta-motivation	control post	63	56.413	8.036		125	0.005	0.06	
	experimental post	64	59.859	4.953	2.904				
Meta-emotion	control post	63	27.524	4.700	3.891	125	0.001	0.108	
	experimental post	64	30.094	2.342					
Meta-cognition	control post	63	17.857	3.676	3.147	125	0.002	0.07	
	experimental post	64	19.53	2.093					
Total of meta-learning awareness factors	control post	63	206.349	25.363	4.382	125		0.13	
	experimental post	64	221.656	11.283			0.001		
Writing test	control post	63	7.206	1.927		125	0.001	0.18	
	experimental post	64	8.641	1.060	5.207				

Table 3 shows that there are significant differences between the control group (M=206.349, SD= 25.363) and the experimental group (M=221.656, SD= 11.283) t (125) = 4.382, $p = 0.001$, $\boldsymbol{\eta^2}$= 0.13. on the meta-learning strategies and its factors, in favor of the experimental group. It also shows that there are significant differences between the control (M= 7.206, SD= 1.927) and experimental group (M= 8.641, SD=1.060), t (125) = 5.207, $p = 0.001$, $\boldsymbol{\eta^2}$= 0.18 on the writing test score, in favor of the experimental group. Both groups took the same writing test. The table shows that the value of eta square is high and this means that the training program has a positive and strong effect.

Table 4: T-test for the differences between the mean scores of the pre- and post-tests of the meta-learning strategies and the English language writing test for the experimental group

Meta-learning Awareness factors		Mean	S.D	Paired Differences Mean	t	Df	Sig. (2-tailed)	η2
Awareness of learning situation	Pre	76.188	8.353	6.156	4.857	63	0.001	0.27
	Post	82.344	5.618					
Educational situation control	Pre	27.141	3.634	2.688	4.346	63	0.001	0.23

	Post	29.828	3.379					
Meta-motivation	Pre	56.313	6.996	3.547	3.459	63	0.001	0.16
	Post	59.859	4.953					
Meta-emotion	Pre	27.172	3.632	2.922	5.446	63	0.001	0.32
	Post	30.094	2.342					
Meta-cognition	Pre	16.328	2.971	3.203	7.557	63	0.001	0.48
	Post	19.531	2.093					
Total of Meta-learning Awareness factors	Pre	203.141	19.915	18.516	6.651	63	0.001	0.41
	Post	221.656	11.283					
Writing test	Pre	4.828	1.927	3.094	9.980	63	0.001	0.61
	Post	7.922	2.163					

It can be seen from the table that there are significant differences between the total mean scores of the pre- (M= 203.141, SD = 19.915 and post–test (M=221.656, SD= 11.283), p=0.000, $t=$ 63, η^2 = 0.41 of the meta-learning strategies in favor of the post-test. For the writing test, it is clear that there are significant differences between the mean scores of the pre- (M= 4.828, SD= 1.927) and post–test (M=7.922, SD= 2.163), p=0.000, t= 63, η^2= 0.61 in favor of the post-test. This means that the training program has a positive and strong effect on the students` writing skill and writing achievement.

4. DISCUSSION

The main goal of the present work was to investigate the effectiveness of a proposed training program based on the meta-learning strategies to develop the writing skills of Saudi college students. The findings of the study clearly show that the training program in the pre-writing activities results in an increase in the students' use of these meta-learning strategies in their writing. In fact, the difference was highly significant for the experimental group based on the meta-learning strategies. This finding confirms the studies of, for instance, Xu and Zhang (2015).

The findings also show that teaching meta-learning strategies helps the students to develop English writing skills, for the activities of the meta-learning program motivate students to work with each other using the target language. The findings of the present research confirm the findings of the previous research of Fukao & Fujii (2001), Manchón & de Larios (2007), Ward &

Meyer (2010), and Ward & Meyer (2013). A student who has a high level of meta-learning awareness is able to assess the effectiveness of his learning approach and regulate it according to the demands of the learning process. In contrast, a student who has a low level of meta-learning awareness is not able to reflect on his learning approach or the nature of the learning set (Norton, et al., 2004).

With regard to the first hypothesis, the findings showed that there were differences between the means of the experimental group and the means of the control group on the writing post-test and the meta-learning strategies and its factors, which proved that the first hypothesis was correct and the mean scores of the experimental group was higher than the control group. In a similar vein, Mayer (1991, 2004, 2015) stressed the importance of equipping the students with study skills to be aware and take control of their learning process. This result confirmed the results of many previous studies, e.g. Biggs, et al. (2001), Wisker et al. (2004), and further confirmed that improving learners' writing cannot take place out of its own accord and needs to be done through a training program.

The results of the second hypothesis show that there are significant differences between the mean scores of the pre- and post-test for the experimental group on the meta-learning strategies and its factors in favor of the post-test. It also shows that there are significant differences between the pre- and post-test for the experimental group on the writing test score in favor of the post-test. This result also coincides with the work of

other researchers who emphasize the importance of the role of teaching meta-learning strategies in the teaching of writing and the need for helping learners acquire the strategies necessary to learn words on their own (Wisker, et al., 2004).

Therefore, meta-learning can assist teachers in developing a student's conception of a subject and consequently their approach to learning in that subject (Winters, 2011). We can help students take active initiatives in their learning by providing them with the appropriate strategies and making them aware of how to use these strategies in different learning situations (Boström and Lassen, 2006).

5. CONCLUSION

This study aims to show that the meta-learning program, which is based on meta-learning awareness strategies, can contribute to the writing achievement of students. Meta-learning strategies have proved to have an exceptional effect. Many researchers have underscored the importance of meta-learning in the learners` achievement (Biggs, et al, 2001, Veenman & Verheig, 2003, Wisker, et al, 2004). As a result, students who are aware of their meta-learning process can do many learning tasks in the present and future. It would also help them in their careers.

The teacher needs to be well-equipped. A training course should be arranged for all teachers so that they are able to promote appropriate strategies for teaching English, which will, in turn, enable them to minimize the difficulty level and obtain better and maximum results. Writing in a second language is exploring an unfamiliar territory. Teachers should find ways to make the learner comprehend writing in L2 and take practical steps to improve it. Teacher commitment is essential in helping students overcome their resistance to writing, which is a skill of vital importance in a multicultural world of conflicting ideologies.

Another important factor that should be considered to gain better results is to identify students' specific errors and develop specific and goal-oriented activities, in the form of on-campus and home assignments, to address their common mistakes. This will not only help them with their problem areas but will also enhance their practice time, ensuring better results. To facilitate a departure from learner dependence to learner autonomy, this paper tries to promote a deeper understanding of what meta-learning might be and whether the concept might be useful to Saudi students, and to develop the awareness of the students regarding their approaches to learning and writing achievement.

6. IMPLICATIONS OF THE STUDY

The results of the present study can be useful from a number of perspectives. First, they can be useful for the college educators who understand that meta-learning awareness strategies can enhance the success of academic writing. Second, they can also be useful for the decision-makers, teaching practitioners, material developers, evaluators, and teacher trainers to have a better judgment and make appropriate decisions in institutions of higher education and in the Saudi Ministry of Education. Third, findings of the present research are also meaningful since its results will help teachers, researchers and school administrators better appreciate some of the challenges that many EFL students face when they are trying to improve their academic English writing achievement. This study will also help college-level students of Saudi Arabia in their studies by raising their meta-learning awareness. Fourth, this study will also work as a basis for further research in Saudi Arabia. Fifth, the findings of the current study can also be beneficial for the teachers to understand the EFL/ESL students' approaches to academic performance, their level of contribution in the classroom and the type of goals they assume in their language learning. Finally, it will provide useful information for other EFL/ESL studies that have an academic culture similar to that of Saudi Arabia, where students seem unaware of the meta-learning process.

7. FUTURE WORK AND RECOMMENDATIONS

This study will prove helpful for English Language Learning ELL learners in Saudi Arabia. But the research is presently limited to the minimum number of speakers and research data. Therefore, in the future, by adding to the number of the sample, the objectivity of the research could be enhanced.

REFERENCES

Abu-Rabia, S. (1997). Reading in Arabic orthography: The effect of vowels and context on reading accuracy of poor and skilled native Arabic readers in reading paragraphs, sentences, and isolated words. *Journal of Psycholinguistic Research, 26,* 465–482.

Abu-Rabia, S. (2000). Effects of exposure to literary Arabic on reading comprehension in a diglossic situation. Reading and Writing: *An Interdisciplinary Journal, 13,* 147–157.

Abu-Rabia, S. (2001). The role of vowels in reading Semitic scripts: Data from Arabic and

Hebrew. Reading and Writing: *An Interdisciplinary Journal, 14,* 39–59.

Al-Khasawneh, F. (2010). Writing for Academic Purposes: Problems faced by Arab postgraduate students of the college of business, UUM. *ESL World, Issue 2* (28) vol. 9, from http://www.esp-world.info

Al-Sawlha, A. M. & Chow, T, F. (2012). THE EFFECTS OF PROFICIENCY ON THE WRITING PROCESS OF JORDANIAN EFL UNIVERSITY STUDENTS. *Academic Research International, 3*(2), 378- 388.

Bacha, N. (2002). Developing Learners' Academic Writing Skills in Higher Education: A Study for Educational Reform. *Language and Education, 16*(3), 161-171.

Biggs, J. B. Kember, D. & Leung, D. Y. P. (2001). The revised two –factor study process questionnaire: R-SPQ-2F, *British Journal of Educational Psychology, 71* (1), 133-149.

Biggs, J. B. (1985). The role of meta-learning in study processes, *British Journal of Educational Psychology, 55,* 185-212.

Boström, L. & Lassen, L. M. (2006). Unraveling learning, learning styles, learning strategies and meta-cognition. *Education & Training, 48,* 2/3; ProQuest Central. pg. 178

Carpenter, W. (2000). Ten years of silver bullets: Dissenting thoughts on educational reform. *Phi Delta Kappan, 81*, 383-389.

Celce-Murcia, M. (1991). Grammar Pedagogy in second and foreign language teaching. *TESOL Quarterly, 25*,459-480.

Jackson, N. (2003). 'Exploring the concept of meta-learning,' *Discussant contribution to the Symposium on Meta-learning in Higher Education: Taking Account of Student Perspective*. European Association for Research on Learning and Instruction, 10th Biennial Conference, Padova, Italy August 2003.

Jackson, N. (2004). Developing the concept of meta-learning. *Innovations in Education and Teaching International, 41*(4), 391- 403.

Jankowski, N. (2012). GRAPH–BASED GENERATION OF A META–LEARNING SEARCH SPACE. *Int. J. Appl. Math. Comput. Sci., 22,* (3), 647–667. DOI: 10.2478/v10006-012-0049-y.

Manchón and de Larios, R. (2007). Writing-to-learn in instructed language learning contexts. In E.Alcón Soler & M. Safont Jordà (Eds.), *Intercultural language use and language learning* (pp. 101-121). Dordrecht, The Netherlands: Springer.

Meyer, J. H. (1991). The Modelling of Dissonant Study Orchestration in Higher *Education. European Journal of Psychology of Education, 15*(1), 5-18.

Meyer, J. H., Knight, D. B., Callaghan, D. P., Baldock, T. E. (2015). Threshold Concepts as a Focus for Meta-Learning Activity: Application of a Research-Developed Mechanism in Undergraduate Engineering. *Innovations in Education and Teaching International, 52 (3) 277-289*

Meyer, J. H., Shanahan, M.P (2004). Developing meta-learning capacity in students: actionable theory and practical lessons learned in first - year economics. Innovations in Education and *Teaching International; 41*, (4) ProQuest Central, p. 443

Mourtaga, K. (2004). Investigating Writing Problems among Palestinian Students: Studying English as a foreign Language from http://www.flipkart.com/investigating-writing-problems-among-palestinian-book-142080

Norton, L.S., Owens, T. & Clark, L. (2004). Analyzing meta-learning in first-year undergraduates through their reflective discussions and writing. *Innovations in Education and Teaching International, 41*(4), p.423

Ohlrogge, A. (2009). Formulaic expressions in intermediate EFL writing assessment. In R. Corrigan, E. A. Moravcsik, H. Ouali, and K. M. Wheatley (eds): *Formulaic Language Volume 2: Acquisition, Loss, Psychological Reality, and Functional Explanations.* John Benjamins Publishing Company, 375–86.

Rababah, G. (2003). Communication Problems facing Arab learners of English: A personal perspective. *TEFL Web Journal 2*(1), 15-30.

Shakra, Z. A. (2013). TOWARDS GREATER LEARNER AUTONOMY IN FEEDBACK ON WRITING TASKS. *European Scientific Journal,9* (13). Retrieved from http://search.proquest.com/docview/1524705740?accountid=30641

Veenman, M.V. & Verheij, J. (2003). Technical students` meta-cognitive skills: relating

general vs. specific meta-cognitive skills to study success*, Learning and Individual Differences, 13*, 259-272.

Ward, S. C. & Meyer, J. (2013). The enactment of meta-learning capacity: using drama to help raise students' awareness of the self as the learner. *Innovations in Education and Teaching International, 50* (1), 14.

Ward, S.C. & Meyer, J. H. (2010). Meta-learning capacity and threshold concept engagement. *Innovations in Education and Teaching International, 47* (4), 369-381.

Winters, T. (2011). Facilitating Meta-learning in Art and Design Education*, International Journal of Art & Design Education, 20*, (1), 90-101.

Wisker, G. Robinson,G. Trafford, V. Lilly, J. and Warnes, M. (2004). Achieving a doctorate: meta-learning and research development programmes supporting success for international distance students. *Innovations in Education and Teaching International, 41*(4), 473- 489.

Xu, Z. & Zhang, Y. (2015). Strategies used by Chinese EFL learners in processing English formulaic expressions. *Polyglossia, 27*, 27-38.

Zughoul, M. & Husain, R. (1985). English for higher education in the Arab world – a case study of needs analysis at Yarmouk University. *ESP Journal 4*, 133–52.

Appendix A:

English Version of the Meta-learning Questionnaire

Instructions

Dear Student

This questionnaire is designed to know what meta-learning strategies you follow while learning the writing course. There are two parts in this questionnaire. The first part includes general information about your name, age, gender, academic level and score in the English writing course. The second part is a meta-learning questionnaire that consists of 56 items. Please fill in this questionnaire by marking your answers on it. Your answers should reflect your meta-learning strategies in learning English. You are kindly asked to answer truthfully because your answers will not affect your English grade and the information you provide will be used exclusively for academic research purposes. Whatever you reveal will be kept confidential.

Thank you very much for your help.

Part 1: General Information

Name _____ (Optional)   age _____

Gender: Male (   )   Female   (   )

Academic Level: First (   ) Second (   ) Third   (   ) Fourth (   )

Fifth (   ) Sixth   (   ) Seventh   (   )   Eighth

Writing Course Score of the previous semester (   )   A   B   C   D

Average (G.P.A): _____

Part 2: Meta-learning Questionnaire

(SD = strongly disagree; D = disagree, N = neutral, A = agree, SA = strongly agree)

No	Meta-learning Questionnaire items	SD	D	N	A	SA
	Awareness of learning situation					
1	**I am aware of the overall goals of the writing course.**	1	2	3	4	5
2	**I know different strategies in writing to help me organize the essay.**	1	2	3	4	5
3	**Adequacy of important resources (e.g. books, the Internet, English magazines, newspapers, etc.) increases my writing level.**	1	2	3	4	5
4	**I follow test strategies in writing exams to help me get higher scores.**	1	2	3	4	5
5	**I think that integration between reading and writing during learning is important.**	1	2	3	4	5

6	While writing I try to focus on the central points.	1	2	3	4	5
7	I discuss difficult writing questions with my teachers.	1	2	3	4	5
8	I am aware of how ideas are arranged in writing texts.	1	2	3	4	5
9	I am familiar with the instructions before starting to write the essay.	1	2	3	4	5
10	I visit the library many times to use the relevant references in the English language.	1	2	3	4	5
11	I try to collect more information when facing difficult learning tasks on writing skill.	1	2	3	4	5
12	I organize the important points when writing in the English language.	1	2	3	4	5
13	When writing, I define the key ideas before starting to write.	1	2	3	4	5
14	I know the phases of learning writing in the English language.	1	2	3	4	5
15	If the writing topic draws my attention, I write a good and successful essay.	1	2	3	4	5
16	Mastering reading skills helps me make progress in the writing skill.	1	2	3	4	5
17	Before writing I think about what I already know about the topic.	1	2	3	4	5
18	I use the strategies that worked in the past.	1	2	3	4	5
19	I use different strategies depending on the situation.	1	2	3	4	5
20	I draw mental maps to help me understand while learning.	1	2	3	4	5
21	I organize my time to accomplish my goals.	1	2	3	4	5
22	I learn more when I work in a group.	1	2	3	4	5
	Educational situation control					
23	I think it is necessary to modify my learning strategy to understand the topic when writing in the English language.	1	2	3	4	5
24	After writing, I have a writing checklist to check to be sure that I did my assignment correctly.	1	2	3	4	5
25	I try to guess the meanings of the difficult words to understand and write meaningful sentences.	1	2	3	4	5
26	I try to determine the problem that appears during the process of learning writing to solve it easily.	1	2	3	4	5
27	I try to define the weaknesses to treat them and the strengths to develop them during writing.	1	2	3	4	5
28	I try to write new topics no matter what problems I face, to develop writing skill.	1	2	3	4	5
29	I try to memorize some new words on a daily basis to expand my vocabulary.	1	2	3	4	5
	Meta-motivation					
30	I think I am hardworking and I try to put more effort whenever the task is difficult.	1	2	3	4	5
31	Motivation is an important factor in mastering writing.	1	2	3	4	5
32	I am enthusiastic about learning new things about my writing skill.	1	2	3	4	5
33	I am interested in new ideas that generate motivation.	1	2	3	4	5
34	I make sufficient effort to do what my teachers ask me to.	1	2	3	4	5

35	I have the ability to understand new things even if they are unclear.	1	2	3	4	5
36	I love writing difficult articles that are characterized by challenging the English language.	1	2	3	4	5
37	I finish my writing assignments immediately.	1	2	3	4	5
38	When some extra English writing is required, I try to complete it as soon as possible.	1	2	3	4	5
39	When I review my graded test papers, I check them carefully to learn from my mistakes.	1	2	3	4	5
40	In addition to writing courses in my class, I try to find other English courses to improve those two skills.	1	2	3	4	5
41	When I have a writing class, I try to answer all the questions as much as possible.	1	2	3	4	5
42	I feel more motivated to learn in the writing courses.	1	2	3	4	5
43	During the writing classes, I try to do my best to understand everything.	1	2	3	4	5
44	I work hard to get high grades in the reading and writing courses.	1	2	3	4	5
	Meta-emotion					
45	I feel happy when I complete the writing assignments.	1	2	3	4	5
46	I feel happy when I have success in the writing courses.	1	2	3	4	5
47	I feel happy when I have made progress in the writing courses.	1	2	3	4	5
48	I enjoy writing classes.	1	2	3	4	5
49	I enjoy it when I see there is enough time to complete the writing essay.	1	2	3	4	5
50	I like writing good essays.	1	2	3	4	5
51	I feel confident when I write.	1	2	3	4	5
	Meta-cognition					
52	I am aware of writing strategies that help me understand what I write.	1	2	3	4	5
53	I can evaluate what I write.	1	2	3	4	5
54	I can find my writing mistakes.	1	2	3	4	5
55	I organize the ideas in my mind before writing.	1	2	3	4	5
56	I am good at organizing my thoughts while writing.	1	2	3	4	5

Arabic Translation of Meta-learning Questionnaire

<div dir="rtl">

عزيزى الطالب/ الطالبة

فيما يلى مجموعة من المفردات تمثل الاستراتيجيات التى تتبعها أثناء دراسة مقرر الكتابة ، وأمام كل عبارة مجموعة من الاختيارات ، برجاء وضع علامة (√) أمام الاستجابة التى تعبر عن استخدامك لهذه الاستراتيجية. وهذه المعلومات تستخدم من أجل البحث العلمى فقط.

الاسم: ـــــــــــــــــــ   العمر ـــــــــــــــــــ

المستوى الدراسى: الأول   الثانى   الثالث   الرابع   الخامس   السادس   السابع   الثامن

المعدل فى الكتابة ـــــــــــــــــــ

لا أوافق بشدة	لا أوافق	محايد	أوافق	أوافق بشدة	عبارات المقياس	
					الوعى بالموقف التعليمى	
					لدىَّ وعى بالاهداف العامة لمقرر الكتابة .	1
					أعرف استراتيجيات مختلفة فى الكتابة تساعدنى فى تنظيم المقال.	2
					كفاية أو وجود المصادر المهمة (مثل الكتب، المجلات اليومية باللغة الانجليزية، الانترنت.....الخ) يساعدنى فى زيادة مستوى مهارة الكتابة.	3
					أتبع استراتيجيات فى امتحانات الكتابة تساعدنى فى الحصول على درجات مرتفعة.	4
					أعتقد أن التكامل بين مهارتى القراءة والكتابة مهم أثناء تعلمهما.	5
					أثناءالكتابة أحاول أن أركز على النقاط الأساسية.	6
					أناقش أسئلة الكتابة الصعبة مع أستاذتى.	7
					لدىَّ وعى بكيفية ترتيب الأفكار فى موضوعات الكتابة.	8
					أحاول أن أكون على ألفة بتعليمات الاختبار قبل أدائه.	9
					أزور المكتبة عدة مرات للاطلاع على المراجع المرتبطة بدراسة اللغة الإنجليزية.	10
					أحاول جمع مزيد من المعلومات عند مواجهة مهام تعليمية صعبة خاصة بمهارة الكتابة.	11
					أرتب الأفكار المهمة عند الكتابة باللغة الإنجليزية.	12

</div>

#	عبارات المقياس	تنطبق علي تماما	تنطبق علي	محايد	لا تنطبق علي	لا تنطبق علي تماما
13	عند الكتابة أحدد الأفكار الأساسية قبل البدء فى الكتابة.					
14	أعرف مراحل تعلم الكتابة باللغة الإنجليزية.					
15	إذا شد انتباهى موضوع الكتابة ، أستطيع كتابة الموضوع بنجاح.					
16	إتقان مهارة القراءة يساعدنى على احراز تقدم فى مهارة الكتابة.					
17	قبل الكتابة أفكر فيما أعرفه عن الموضوع.					
18	أستخدم الاستراتيجيات الفعالة التى استخدمتها فى الماضى.					
19	أستخدم استراتيجيات مختلفة طبقا للموقف.					
20	أرسم خرائط ذهنية لتساعدنى على الفهم أثناء عملية التعلم.					
21	أنظم وقتى لإنجاز أهدافى.					
22	أنجز أكثر عندما أعمل فى مجموعة.					
	مراقبة الموقف التعليمى					
23	أعتقد أنه من الضرورى أن أعدل من استراتيجية التعلم لدىَّ لتساعدنى على فهم موضوع المقال أثناء الكتابة.					
24	بعد كتابة المقال، أقوم بمراجعته حسب قائمة الكتابة حتى أتأكد أن ما كتبته صحيح.					
25	أحاول تخمين الكلمات الصعبة لفهم وكتابة جمل ذات معنى.					
26	أحاول أن أحدد المشكلة التى تظهر أثناء تعلم الكتابة لحلها بسهولة.					
27	أحاول أن أحدد جوانب الضعف لمعالجتها وجوانب القوة لتنميتها أثناء الكتابة.					
28	أحاول كتابة موضوعات جديدة مهما واجهنى من مشاكل لتنمية مهارة الكتابة.					
29	أحاول حفظ بعض الكلمات الجديدة يومياً، بسبب نقص المفردات لدى.					
	ما وراء الدافعية					
30	أعتقد أننى طموح وأحاول أن أزيد من جهدى مهما كانت المهمة صعبة.					
31	تمثل الدافعية عامل مهم فى إتقان مهارة الكتابة.					
32	لدىَّ الحماس فى تعلم أشياء جديدة فيما يخص مهارة الكتابة.					
33	أهتم بالافكار الجديدة التى تزيد من الدافعية لدىَّ.					
34	أقوم بمجهود زيادة فيما تكلفنى به معلمتى.					
35	لدىَّ القدرة على فهم الأشياء الجديدة حتى لو كانت غامضة.					
36	أحب كتابة المقالات التى تتسم بالتحدى فى اللغة الإنجليزية.					
37	عندما يكون لدىَّ واجبات فى الكتابة ، أعملها على الفور.					
38	إذا طلبت الأستاذة مهام زيادة فى الكتابة ، أحاول بالتأكيد إكمالها.					

تنطبق بدرجة قليلة جداً	لا تنطبق	محايد	تنطبق بدرجة كبيرة	تنطبق بدرجة كبيرة جداً	عبارات المقياس	
					عندما تعيد لى معلمتى أوراق الاختبار الخاص بالكتابة. ، فإننى أقوم بمراجعتها للتعلم من أخطائى.	39
					بالإضافة إلى دراسة مقرر الكتابة، أحاول أن ادرس مقررات أخرى باللغة الإنجليزية لتحسين هذه المهارة.	40
					عندما يكون عندى محاضرة فالكتابة أحول أن أجيب على كل الأسئلة.	41
					أشعر بمزيد من الدافعية لتعلم مقررات الكتابة.	42
					أثناء محاضرات الكتابة ، أحاول أبذل أقصى جهدى لفهم كل شئ.	43
					أعمل بجد وأجتهاد للحصول على درجات مرتفعة فى الكتابة.	44
					ما وراء الوجدان أو الإنفعال	
					أشعر بالسعادة عند إكمال واجباتى فى الكتابة.	45
					أشعر بالسعادة عندما أنجح فى مقرر الكتابة.	46
					أشعر بالسعادة عندما أحرز تقدماً فى مقرر الكتابة.	47
					أستمتع بمحاضرات مقرر الكتابة.	48
					أستمتع بالكتابة إذا كانت المقال له وقت كافى.	49
					أنا سعيدة بكتابة مقالات جيدة.	50
					أشعر بالثقة عندما اكتب.	51
					ما وراء المعرفة	
					لدىَّ وعى باستراتيجيات الكتابة التى تساعنى على فهم ما أكتب.	52
					أستطيع تقييم ما أكتب.	53
					أستطيع إيجاد الأخطاء فى كتابتى أو فى مقالى.	54
					أرتب الأفكار فى ذهنى قبل الكتابة.	55
					أنا جيده فى ترتيب أفكارى أثناء الكتابة.	56