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Utilizing a Meta-memory Strategy to Develop the Secondary School Students' EFL Translation Skills

(Curriculum, Instruction and Methods of TEFL)

By

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Abstract

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The Present study aimed at investigating the effect of a Meta-memory Strategy on developing the secondary school Students' EFL translation skills. The study adopted the quasi-experimental design. Participants of the study were (sixty) first year secondary school students from Al Qawmia Al Arabia private schools, Zagazig, Sharkia Governorate, Egypt. Who equally divided into an experimental and control groups. The experimental group was taught through the Meta-memory strategy to develop their translation skills. On the other hand, the control group received regular instruction. To achieve the aim of the study, the researcher designed a questionnaire for determining the required translation skills approved by a panel of jury. Based on these translation skills, a pre/post translation skills test was designed. The data obtained were statistically treated through the SPSS program. The findings of the study revealed that the strategy of the Meta-memory strategy had a positive effect on developing the first-year secondary school students' EFL translation skills.

Keywords: Meta-memory, translation skills, Zagazig Egypt.

Background and the problem:

Language is a path of communication among people. Translation acts like a bridge among nations. Through language the person expresses his pain, his hopes, his desires and his needs. Language and translation are products of sharing experiences, ideas and the transmission of cultures' levels (deep/surface/sub-surface) among people. Translation should be understood in its both verbal and non-verbal forms. Translation facilitates communicating among peoples, learners from different nations and human beings all over the world.

Dagilienè, (2012) mentioned that translation is a “pedagogy tool” which is included in the language to enhance writing, reading, listening and vocabulary skills. Warwal, (2015) stated that translation is a comprehensive meaning of an original text followed by producing it into an equivalent targeted text. Coban, (2015) showed that a translation is a complex phenomenon, which depends on various mental activities like; language, thinking, learning, problem solving, memory and perception.

Brooks, (2016) mentioned that translation is very important for many reasons; first, people usually prefer their original language and they want to communicate with other cultures. Second, translation facilitates the connection among nations. Finally, it is used effectively to spread both ideas and information among different people. Poudel, (2018) clarified that in some cases, when some terms were in the original text questionable, it was necessary to find out the equivalent terms repeatedly. This task needed some creativity and activity. The findings showed that translation process would need rigorous effort, rethinking, editing and proofreading

Whereas, Hudon, Gervais & Hunt (2015) mentioned that to be a good translator, a learner should read and understand the original text , retain the meaning or send that text to the mind , choose the

most suitable word in the target language, use the grammatical structure of the target language, synthesize that meaning in the target language and finally to be assured that the new text is translated naturally. Cenoz, Gorter & May (2017) focused on the use of translating language and teaching content. They highlighted the importance of considering the learner as a multilingual speaker who has a multilingual repertoire and uses it in a social context. Moreover, Fitriyah & Fauzi, (2020) showed that translation is adopted as a second way of learning and acquiring language. They also mentioned a lot of grammar translation methods which could be applied to learn language.

But Fang, (2013) & Hassan, (2014) showed that learners faced some difficulties during the translation process such as illustrating the correct context, giving the precise meaning of the text, making harmony between the original text and the target one and giving a suitable interpretation of a logical comprehension, linguistic and cultural problems, lexicon, morphology, syntax, textual differences, rhetorical differences, and pragmatic factors.

Sawant,(2013) & Dave & Joshi, (2018) Mentioned that it is important to remark that the activity of translation has never been significant before in history, received the esteem and power which has been received in the final and first decades of the 20th and 21st centuries, respectively. This study of translation is acknowledged as a legitimate field of study, books, journals, and doctorate dissertations proliferate quicker than one can read them all, with broad questions about ideas, ethics, and culture at the center of most fascinating new research is to provide a brief overview of Western translation history. The article aimed to give a brief overview of the development of translation in the West. Likewise Siregar, (2018) showed that translation between two languages cares about their both cultures. As he also clarified that translation implicitly expresses cultures of the source language and that of the target one.

The findings showed that cultural awareness should be impeded in translation teaching process.

Flavell, (1979) showed that the concept “Meta-memory” globally includes all aspects of storing and retrieving information when needed. It includes knowledge about memory performance, difficulties encountered and strategies that can be utilized in learning. Nelson & Louis Narens, (1990) referred to Meta-memory as a sub strategy of Metacognition theory which has a great importance in developing teaching and learning through the mental processes of the mind. Miyazaki et al., (2010) mentioned that Meta-memory is related to knowledge and monitoring of our own memory. That evaluation could be measured by a judgment of learning, which was a subjective judgment observing our confidence in whether a learned term will be remembered in the future.

Phoocharoensil, (2012) clarified the impact of learners’ source language on their acquisition of English language which could be a high proficiency level. The findings showed that the native language plays an important role in the participants’ collocation learning as it is observed as an elementary learning strategy on which they rely. Dunlosky & Tauber, (2016) clarified that a Meta-memory strategy can measure the learners’ monitoring and controlling abilities. Monitoring has three stages (acquisition-retention-retrieval) and controlling has five stages (type of processing-allocation of study time-termination of study-search strategy-termination of search). As Dagenais, Toohy, Fox & Singh (2017) showed that Meta-memory benefits learners(or hurts them) with continuous learning and how Meta-memory directs that learning. Park, Ryu, Yoo, Yang & Lee , (2018) clarified that memory training may help older people enhance cognition. Statistical analysis showed that prediction of educational cognition had been improved in the training group.

McDermott & Gilmore (2015) mentioned that memory reflects the different capacities through working memory, episodic

memory, and semantic memory. As memory goes through specific stages, these stages are (encoding, retention, and retrieval). Failure usually occurs in one of these three stages, which lead to forgetting or wrong remembering of information and events. To improve memory, it is necessary to develop stages through improving encoding, using effective retrieval techniques, linking new information with old information and forming mental images of it. All of these lead to the improvement of memory and remembering information & events in a good and effective manner.

Dunlosky & Tauber, (2016) clarified that a Meta-memory strategy can measure the learners' monitoring and controlling abilities. Monitoring has three stages (acquisition-retention-retrieval) and controlling has five stages (type of processing-allocation of study, time-termination of study-search, strategy-termination of search) as shown in **Figure 1**. In addition, the role of Meta-memory strategy revealed in developing higher mental skills, enabling students to have suitable tools and procedures to monitor the learning situation and dealing with information. But Park, et al , (2018) clarified that memory training may help older people enhance cognition. Statistical analysis showed that prediction of educational cognition had been improved in the training group. They also developed multi-strategic memory training based on meta-memory strategy to enhance the learning and teaching process.

In addition, the role of Meta-memory strategy was revealed in developing higher mental skills and enabling students to have suitable tools and procedures to monitor the learning situation and dealing with information. The researcher realizes the importance of using it in developing the skills of translation and measuring its effect on the linguistic cultural awareness of first-grade secondary students. And this is a response to what has been clarified by many studies.

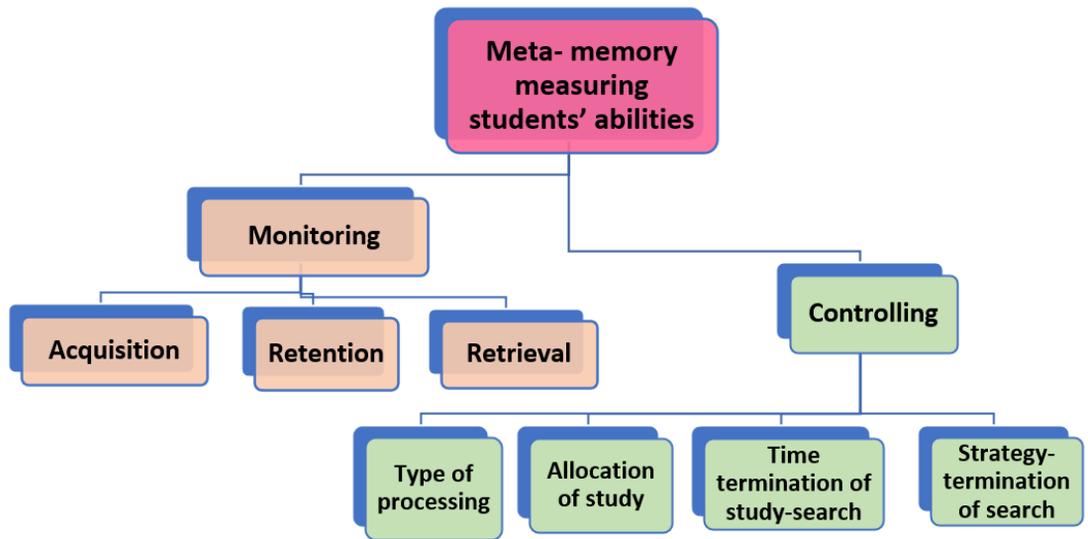


Figure 1: Meta-memory measuring students' abilities

Sobral, (2021) clarified the developed bloom's taxonomy in achieving higher order thinking inside classrooms as follows:

Table 1 Comparison between traditional classroom and meta-memory strategy in achieving higher order thinking of bloom's taxonomy

Level of learning	Traditional classroom tools	Meta-memory strategy tools
Remembering	Face to face lecture	Videos, pre-recorded lecture, listening and reading material
Understanding	Question and answer drills	Reflection, work in pairs, group discussion and collaboration
Analyzing	Assignment and homework	Classroom activities

Applying, Evaluating, Creating	Homework or nothing	Peer-evaluation, participants' projects and instructor- evaluation.
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Becker & Manoussakis, (2018) stated the memory as a process, the brain can explain, store and retrieve information. They clarified that the brain saves the required information in the form of mental imaging, used when needed in the future. They also mentioned that the brain performs three operations to retrieve memory sequentially as follows: (sensory register/short-term memory/long-term memory) as depicted in **Figure 2**.

- Sensory register: is an activity that takes place in a short period, which maybe a few seconds, that is carried out through audio and visual signals
- Short-term memory takes place temporarily to be repeat and begins to pay attention to the information extracted from a text.
- Long-term memory allows information to remain in the brain for a long period of time, a day, a week or for a lifetime. It is divided into memory descriptions and memories' nature.



Figure 2: Memory brain diagram

While Shen & Park, (2018) indicated that Meta-cognition, Working memory capacity and syntax awareness all showed a statistically significant prediction for L2 reading comprehension. From the results, some practical implications to effectively improve L2 reading comprehension are developed at the end. As well as Kelley, Evans & Kelley,(2018, p. 1) declared that the information

encoded in long-term memory, must pass at least 24 hours in order to pass from short-term memory (STM) to long-term memory (LTM) when focusing on repetition and temporal divergence, as many scientists have discovered genetic mechanisms that retain information over 24 hours in the human brain.

Banikowski & Mehring, (1999) used various procedures that enable them to improve and enhance the memory of learners to focus attention and relate prior knowledge with the present knowledge, these procedures as follows:

1. Changing the physical environment.
2. Using novelty such as jokes.
3. Changing the tempo, tone of voice and dialect.
4. Doing unexpected action.
5. Brain storming.
6. Short story aligned the educational situation.
7. Debates and comprehensions.
8. Music and songs.
9. Materials and images.
10. Inculcating presentation skills.

Peynircioğlu & Tekcan, (2000) explained that the meta-memory strategy had a positive and noticeable impact on the translation skills of EFL learners. The results showed that the retrieval skill of the linguistically stronger participants was higher than the linguistically less participants, even if they were linguistically weak, but they had a higher success than the linguistically weaker participants, less confident participants, even if they were linguistically strong. Magno, (2008) stated the effect of reading strategy, meta-memory strategy, meta-cognitive theory and apprehension on writing proficiency in English. The results showed that the above strategies are significant in developing writing proficiency. The results also investigated that meta-memory strategy

is the most perfect predictor in writing proficiency. Meta-memory strategy is very important to write English compositions.

As Akbari Motlaq & Yousefi, (2016) applied their research using meta-cognitive strategies, including meta-memory strategy in learning translation skills. The results showed that the role of meta-cognitive enhanced students' experience in translation process, information examination, translation, and communication understanding. They also clarified that students who were trained through meta-cognitive strategies, were able to translate the entire text to the difficult parts of it. As well Ebrahim, (2017) investigated the effect of meta-memory strategy on the secondary school students' EFL creative writing and reading skills. The findings showed that there is a great effect of meta-memory strategy on the fluency and flexibility skills of the learners. It means that meta-memory is also good for translation skills.

Shreve, (2017) stated the role of meta-cognitive theory as the active, conscious control of complex cognitive tasks such as reading, writing and translation and the individual's ability to perceive, understand and think, all to solve cognitive problems and complete the task successfully. Meta-cognitive theory and its strategies, including meta-memory strategy, relate to concepts and organization to understand the translation process while it is a difficult and complex process. Meta-cognitive activities develop all learners' stages according to their different location, purposes, which occur in the form, scope, and location of the translation process. As Shehata, (2019) who declared the significant impact of meta-cognitive strategies to improve translation skills in English language by

preparing a teacher's guide based on meta-cognitive strategies, especially meta-memory strategy. The results showed that the meta-cognitive strategies are the essence of translation efficiency because of their positive impact of improving translation skills, which enabled students to translate and convey any text with less apprehension from the source language to the target language.

Nour, Esfandiari and Zarei, (2021) tried to shed the light on the effect of meta-memory strategy on improving linguistic skills and EFL translation by measuring meta-memory strategy, directing attention to memory and memory awareness. The results showed that there is no such thing as poor memory that hinders the learning process, but untrained memory. Their research helped students and EFL teachers perform tasks that require memory, such as learning, retaining complex grammatical structures, lexical items and effective verbal alternation. They also agreed that many numbers of studies clarified their interest in enthusing language learners' manipulating the metacognitive mechanisms whereas, few studies have been directed to the essential role of meta-memory in the acquisition process of a foreign language. They also showed two components of meta-memory, as follows:

1. Memory factual knowledge, which refers to someone's knowledge of what memory is and what relevant tasks and strategies can be used for better results in memory demanding situation.
2. Memory monitoring tasks in several studies, SLA researchers have recently shown their interest in encouraging language learners' manipulation of metacognitive mechanisms.

Context of the problem:

The researcher reviewed the previous studies related to the research dependent variable that showed a deficiency of the students' levels in the target skills. Besides, interviews were also conducted with EFL teachers in some secondary schools. They complained that most students lack translation skills. The researcher, as a teacher of English, observed that the EFL secondary stage students have weakness in most of translation skills.

A pilot study:

A pilot study was conducted on a 10 EFL students from the first-grade secondary school of Al Qawmia Al Arabia, private schools, Zagazig Sharkiah Governorate, to determine their performance levels in some EFL translation skills of EFL secondary school learners. The pilot study included a pilot test for translation skills. Results indicated that the students' performance level in pilot test was between (20% &40%), see appendix A

Appendix A:

The students' translation skills results in the pilot test

No.	Translation Skills	Percentage of student's level
	In EFL classes, first year Secondary School student-translators should have	
1	-Comprehending the text meaning.	36%

2	-Appropriate reading, writing and oral skills (Grammar, Punctuation and style).	28%
3	-Appropriate Bilingual language knowledge	27%
4	- Creating a new text based on the source language	26%
5	Appreciation and Neutrality for Other Cultures.	20%
6	-The ability to grasp new concepts quickly, (e.g. technical terms.)	36%
7	-Verification of the quality of the generated text and Organization.	38%
8	-Knowledge of cultural studies	28%
9	-Handling and translation of sentence verb/tense • Identification of the main verb	40%
10	- Instrumental-professional competence (use of new technologies)	32%
11	-Transfer competence (analyzing, synthesizing extra-linguistic knowledge to get the sense of a text).	31%
12	-Handling translation of certain literary devices (Simile, Metaphor, Euphemism Dysphemism, Synonyms, and Antonyms).	28%

According to the results of the pilot study it's obvious that EFL first grade students have weakness in their translation skills that their grades are between 20% and 40% in the stated areas. So, utilizing a Meta-memory strategy may treat this weakness.

Statement of the problem:

The researcher's experience, the review of literature, the related studies and the results of the pilot study showed the students'

of the first secondary school are weak in translation skills; so the researcher adopted Meta-memory Strategy in an attempt to overcome the previous problem.

Questions of the study:

The current study aimed to answer the following main question:

What is the effect of a Meta-memory Strategy on developing the Secondary School Students' EFL Translation Skills?

This main question could be subdivided into the following questions:

1. What are the necessary translation skills required for EFL secondary stage students?
2. What is the actual level of EFL translation skills performance of secondary stage students?
3. How can a Meta-memory strategy be designed to develop translation skills?
4. What is the effect of Meta-memory strategy on developing EFL translation skills?

Study instruments:

The researcher designed the following instruments:

1. A Translation Skills Questionnaire.
2. (Pre-post) Translation Skills Tests.
3. A rubric for correcting the translation skills tests.

Significance of the study:

The current study is significant to:

- EFL secondary school students in:

Improving their EFL translation skills.

- EFL teachers:

Providing them with systematic and practical procedures to develop their methods of teaching translation skills.

Preparing a suitable list of EFL translation skills.

- EFL curriculum designers:

Inspiring them to use other similar strategy to enrich the educational process with the newest theories and teaching methods.

- Theorists:

Getting a better understanding of the role of a Meta-memory strategy.

Employing a Meta-memory strategy in designing EFL textbook.

- Researchers:

Helping open a new research gate for the researchers to utilize a Meta-memory strategy to improve aspects or to develop translation skills through utilizing other strategies and methods.

Delimitations of the study.

The current study was delimited to:

1. A group of 60 first secondary school students from Al Qawmia Al Arabia private school in Zagazig Sharkia Governorate who equally divided into an experimental and control groups two groups.

2. Some EFL translation skills which are suitable for EFL first grade secondary stage students.
3. Sixteen sessions for implementing a Meta-memory strategy on translation skills (8 weeks, 2 sessions of 180 minutes each week).
4. The first semester of the academic year 2022/2023.

Unit	Title
Unit 1	Getting away
Unit 2	Supporting the community
Unit 3	Improving lives
Unit 4	Making new friends

The study design:

The quasi-experimental design of two groups was adopted in the current study. Participants of the study were assigned as experimental and control groups. Before and after the experiment, both groups were administered the pre-posttest of translation skills.

Figure 3 reveals the design of the study.

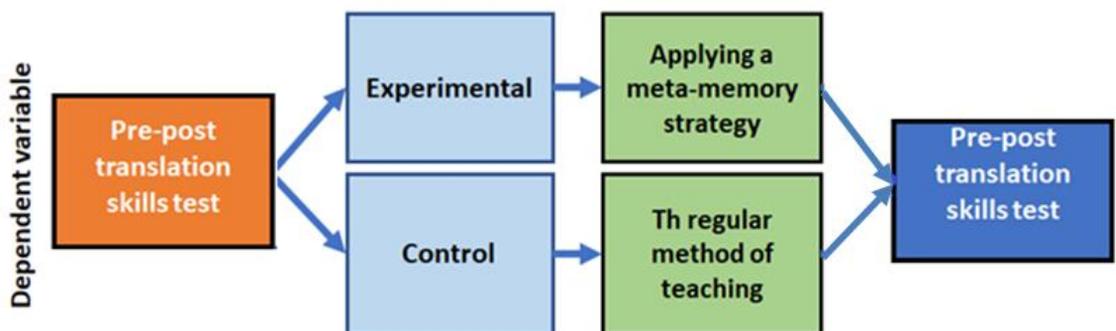


Figure 3: The design of the study

Definition of terms:

Meta-memory:

Meta-memory is a subarea of the area of meta-cognition. Metacognition refers to people's self-monitoring and self-control of their own cognitive processes. Accordingly, meta-memory refers to people's self-monitoring and self-control of their own memory processes. Nelson (2001).

Khatoun & Roy, (2017) mentioned that meta-memory points to the monitoring and controlling processes of the mind in adults and there is a differential pattern of correlation between meta-memory and memory.

Drigas et al., (2022) investigated that meta-memory based on the principles of metacognition theory which enables learners to acquire mnemonic knowledge and meta-skills to control the memory functions.

Operationally, a Meta-memory can be defined as the ability of the students of first-secondary stages to implement real life situations and events in the classroom. Students make judgments of whether they have successfully learned the assigned material and use these decisions to allocate study time. Students can easily translate passages or essays through some activities and assignments that they practiced with the researcher.

Translation:

Translation is a mental activity in which a meaning of given linguistic discourse is rendered from one language to another. It is the act of transferring the linguistic entities from one language into their equivalents into another language. Lafeber, (2012)

Christiane, (2008) defined translation as the act of transferring the text from one language (the source language) to another one (the target language).

El-Dali, (2011) clarified that translation process means the transformation of a text originally in the source language into another text in the target language to give the context meanings as far as is possible.

Translation Skills:

It means that all languages have idiomatic expressions which carry connotations that are above and beyond the meanings of the separate words themselves Lafeber, (2012).

Ali, (2019) mentioned that translation is a means of reflecting the reality of life and it helps learners translate from Arabic into English or vice versa, they need to make proper use of grammatical rules in both languages

Guan et al., (2022) showed that translation is the way to convey a text from one language to another. To integrate between the original text and translation, learners should focus on the scientific integration of culture, content, and expression

Operationally, translation skills are the abilities of the first-secondary stage students to receive messages, organize information, send a meaningful message, save ideas, order them, interact with others, then sharing them to achieve the purposes of learning English as a foreign language.

Results and Discussion:

The Mm S was effective in developing the secondary school students' EFL translation skills.

The pre/post translation skills test.

Purpose

This test was designed to:

- Equivalence the participants' pre/post translation skills.
- Measure the impact of Mm on developing the participants' translation skills.
- The test was pre-administered to make sure that the students of the experimental and the control groups were at the same level before the experiment.

Content and description of the test

The test consisted of five main questions under the main domain, modifications were proposed, based on the list of translation skills absorbed through the results of the questionnaire.

The test entailed items about punctuating, choosing, translating, and summarizing, the test comprehended producing the appropriate word form to express the target meaning. Stating harmony of words according to their pronunciation, identifying the meaning of vocabulary in context, offering a situation for using the vocabulary in a sentence and connecting the target word with its context was comprised.

Sources of the test

For preparing the test, the following procedures were stated:

The test comprised five main questions which branched into twenty-one questions administrated to the participants out of their prescribed curriculum. Questions of the test were designed according

to the first level of secondary stage units of the first term, Teacher's guide for first secondary, The Ministry of Education Directives (2022-2023) and the identified skills to be gauged by the test through the yields of the EFL translation skills test. Instructions of the test were detailed such as; providing sufficient time for reading, preserving objectively and avoiding vagueness. The test was constructed in the light of the following sources:

- 1- Reviewing related studies related to the designing EFL translation skills.
- 2- Reviewing related studies concerned with designing EFL translation skills tests .
- 3- The translation skills identified by the results of questionnaire.

Validity of the test

The test was delivered to a group of EFL specialists and professors at the Faculties of Education and Faculty of Languages and Translation, teachers, and supervisors. Jurors mentioned their perspectives about obviousness and suitability of each item rendering the significance, the clarity, and the appropriate items of the skills of the participants and layout transparency and agreement. At the end, all the required modifications were accomplished according to the jurors' explanations. In the light of jurors' modifications and results of piloting the test, the final version was prepared. The test validity was determined by using SPSS program. It was estimated according to the following formula:

$$\text{Test validity}=0.74$$

The value came as (0.74) and this indicated that it was valid

Validity was valued through the following formula:

$$\text{Test validity} = \text{Reliability} = 0.74$$

Reliability of the test

For reliability, Cronbach's coefficient Alpha formula for internal consistency was used to compute the reliability coefficient of the test. Test was measured by SPSS program the coefficient Alpha for the test was (0.74). This is a statistically significant value relating to reliability of the test as whole. Therefore, the test is considered a reliable one for the current study as shown in **Table 2**.

Table 2: The post translation skills administration test for the control and experimental groups

Skill	Group	N	M	S.D.	Df	t-value	Sig
Translation skills	Control	30	24.7	3.1	29	25.7	0.05
	Experimental	30	29.7	3.2			

Instructions of the test

Content and instructions of the test were described orally and obviously by the researcher for the participants when pre-used to sidestep misunderstanding.

Scoring the test

Scoring the test was attached by a rubric organized by the researcher. It comprised twenty-one branched questions and the total score of the test was thirty-five grades with a rubric for all the questions.

Piloting the test

The test was piloted to a group of 10 students (not included in the participating group) to determine item analysis including item difficulty and discrimination and, hence omitting unsuitable items. Results revealed that most students obtained low scores; moreover, students reported that questions requiring inference were far more difficult than those whose answers were directly stated in the translating texts. In addition, it was estimated that 90 minutes would provide ample time to complete the test. This time was estimated as follows:

Piloting the test aimed at stating the allotted time and determining its simplicity/difficulty.

The time taken by the 10 students

$$\frac{900}{10} = 90min$$

A. Timing the test

Time of the test was identifies measuring the whole time spent by all the testers who participated in piloting there were 10 ones, other than the study participants. They spent 900 minutes divided by their number (10). So, the ample time was 90 minutes as follows:

The time taken by the 10 students

$$\frac{900}{10} = 90min$$

Administration of the test

Pre-testing was administered to the participants on the first of November of the first term 2022 of the academic year. The pre-administration was accomplished three days after conducting the intervention. Participants were given instructions for answering the

test before they began. Their comments were strange as they voiced their illiteracy of these skills

Scoring

To ensure the reliability of scoring, one rater besides the researcher evaluated the ten students. The test was scored by using the translation skills scoring rubric. When scoring the test, one point was given for each correct response; zero was given to wrong / left questions. The total score of the test was 35.

The test, being objective, i.e., variant test, was scored by a rubric.

Test administration:

In the light of the previous adjustments, the translation skills test was pre-administered at the beginning of the first semester of the academic year 2022/2023. It was also post-administered at the end of the semester. The test content and instructions for each translation skills task were explained clearly and orally for the participants to avoid misunderstanding. The researcher sometimes had to use Arabic to explain some tasks for participants to make sure that they understood.

The results of the present study show that the experimental group, taught through a Meta-memory Strategy performed better than the control one in the post administration of Translation skills since there were statistically significant differences at (0. 05) between the mean scores of the experimental group and the control group in favor of the former.

The students ' progress in the post administration of Translation skills test could be attributed to the fact that while using Meta-

memory Strategy students were interested in Translation skills. Students practiced various activities of Translation skills.

The results of the present study show that the experimental group outperformed the control group in the post administration of Translation Skills and Linguistic as a whole. The statistical results showed that there were statistically significant differences between the means of scores of the experimental group in their performance of the posttest compared to the pre administration, favoring the post administration (Tables 11-16). The means of scores of the experimental group in the test are higher than that of the control one. Hence, the significant difference, shown on the post administration of the test, is due to exposing this group to a Meta-memory Strategy. Providing students with a variety of activities through this strategy, changing the method of teaching, dividing the roles among students to improve their Translation Skills gave them the opportunity to interact with each other and to react to the material presented to them.

Through this interaction, they created cooperative environment in which less emphasis was placed on transmitting information from the teacher and more on the students. So, a Meta-memory Strategy adopted throughout the study and the teaching strategy which is based on this approach helped the students go through several steps.

During the experimentation, it was noticed that the participants have a positive attitude towards a Meta-memory Strategy. For students, the Translation activities changed the way they feel about Translation Skills increased their motivation and involvement and improved their communicative performance .

Validating the study hypotheses:

Hypothesis 1:

It has been hypothesized that "There is a statistically significant difference between the mean scores of the experimental group in the pre and the post translation skills test administration, in favor of the post Translation Skills test administration .A paired samples t-test was used as shown in **Table3**

Table3 : t- test results of comparing of the pre- and post- measurements of Translation Skills Test.

skills	Test	N	Mean	Standard deviation	t. value	df.	sig
Translation Skills	Pre	30	17.03	4.5	10.7	29	0.05
	Post	30	29.7	3.2			

**Significant at (0.05)

Table3 indicates that there is a statistically significant difference between the pre and the post of the experimental group in favor of the latter in Translation Skills Test, t-value being (10.7). It is significant at (0.05) level. So, the first hypothesis was validated.

Hypothesis 2:

It has been hypothesized that" There is a statistically significant difference between the mean scores of the experimental and the control groups in the post Translation Skills test , in favor of the experimental group.

A one sample t-test was used to verify this hypothesis as shown in **Table4**

Table 4: t-test of the mean scores of the post-measurement of the control group and the experimental group.

Skills	Group	N	Mean	Standard deviation	t. value	df	sig
Translation Skills	Control	30	24.7	3.1	25.7	29	0.05
	Experimental	30	29.7	3.4			

**Significant at (0.05)

Table4 indicates that there is a statistically significant difference between the control and the experimental groups in favor of the later in the post administration of translation skills test. t. value being (25.7) and significant at (0.05). So, the second hypothesis was validated.

Hypothesis 3:

It has been hypothesized that " A Meta-memory Strategy has a positive effect on EFL Translation Skills ". Cohen's (1988) equation was used to verify this hypothesis as shown in **Table5**

Conclusion

Based on the statistical analysis of the results and their discussions. It could be concluded that:

-For translation skills:

The recent study proposed evidence that the first year secondary stage students' EFL translation skills can be developed via Mm S. Teaching EFL translation skills through Mm S bring about remarkable learning outcomes. Results of the study proved that the use of Mm S developed the experimental group participants' translation skills. Getting instructions from the study material enabled the experimental participants to ask and answer questions about translation skills then it aided them to understand what they were accomplishing. Secondary students become excited to make use of the Mm S in their learning; therefore, they were supposed to utilize it in their future teaching practices. Secondary students can fabricate many ideas for the problem and possessed the ability to grasp it and share in the solution. Mm S proved to be an effective method in teaching as it has the ability of transforming the classroom into a more interactive, productive and cheerful environment. Mm S facilitates clarity of the texts and builds knowledge and language. Previous research on translation development clarified a significant improvement in translation skills whenever a Meta-memory strategy was utilized.

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