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A Training Programme Based on Schwartz Model and its Effect on EFL Preparatory School Teachers' Performance and Metacognitive Thinking

ABSTRACT

Preparatory school teachers of EFL have problems in teaching English language. They depend fully on the conventional methods of teaching English which has a great impact on the performance of their students. One of these reasons is their failure to keep up with scientific development in training programmes that would advance their scientific levels. Hence, the current study is an attempt to construct a training programme for those teachers and find its effect on their teaching performance as well as their metacognitive thinking, as follows: 1. constructing a training programme in terms of Schwartz Model. 2. finding its effect on the teaching performance of EFL preparatory school teachers. 3. finding its effect on the metacognitive thinking of EFL preparatory school teachers. A number of hypotheses have been formulated in order to achieve the aims of the study. The One-group Pretest-Posttest Design is adopted in the current study. A sample of fifty EFL preparatory school teachers that represent 71.43 of its original population have been randomly selected from the preparatory schools of the center of Tikrit city/ Saladdin Governorate, during the academic year (2022-2023). A training programme based on the Schwartz Model has been constructed. A series of procedures have been followed to implement the constructed training programme. The involved teachers have been trained for teaching English in terms of the constructed programme within a period of seven weeks, with two sessions per week where the time of each session is two hours. Two instruments have been constructed to verify the formulated hypotheses and achieve the aims of this study, namely: a checklist, to assess the teachers' teaching performance, and metacognitive thinking test to measure their improvement in this field. The observation checklist includes forty-four items distributed among three areas namely: planning, implementation, and evaluation. The metacognitive thinking test includes twenty items distributed among three areas namely: planning, monitoring, and evaluation too. The instruments have been validated, their reliability is obtained, their items have been analyzed and then applied to the involved sample of teachers. The collected data has been statistically analyzed. The obtained results indicate that the constructed training programme has improved the teachers' teaching performance as well as their metacognitive thinking. The study ends with some conclusions and recommendations.

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برنامج تدريبي قائم على إنموذج شوارتز وأثره في الأداء والتفكير ما وراء المعرفي لدى مدرسي اللغة
الإنكليزية-لغة أجنبية للمرحلة الإعدادية

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الخلاصة:

يواجه مدرسو اللغة الإنكليزية في المدارس الإعدادية مشاكل في تدريس اللغة الإنكليزية إذ انهم يعتمدون بشكل كامل على طرائق التدريس التقليدية في أدائهم التدريسي مما له تأثير سلبي على أداء طلابهم. ويعزى ذلك الى العديد من الاسباب احدها هو فشلهم في مواكبة التطور في برامج التدريب التي من شأنها تحسين أدائهم في التدريس. ومن هنا فإن الدراسة الحالية هي محاولة لبناء برنامج تدريبي لهؤلاء المدرسين وبيان أثر هذا البرنامج في أدائهم وتفكيرهم ما وراء المعرفي.

تمت صياغة عدد من الفرضيات من أجل تحقيق أهداف الدراسة واعتمد التصميم التجريبي ذي الاختبار القبلي والبعدي لمجموعة واحدة واختيرت عينة مكونة من خمسين مدرسا ومدرسة يدرسون مادة اللغة الانكليزية في المدارس الإعدادية التابعة لمركز مدينة تكريت / محافظة صلاح الدين خلال العام الدراسي (2022-2023) والتي تمثل 71.43% من المجتمع الكلي لعينة الدراسة. وتم بناء برنامج تدريبي يستند إلى نموذج شوارتز. وقد اتبعت سلسلة من الإجراءات لتنفيذ البرنامج التدريبي إذ تم تدريب هذه العينة على تدريس اللغة الإنكليزية وفقا للبرنامج المبني خلال مدة سبعة أسابيع بواقع جلستين في الأسبوع و كانت مدة كل جلسة ساعتين.

وقد تم بناء أداتين للثبوت من فرضيات الدراسة وتحقيق أهدافها، وهما: قائمة ملاحظة لتقييم أداء المدرسين، واختبار التفكير ما وراء المعرفي لقياس مدى تحسنهم في هذا المجال. وتتضمن قائمة الملاحظة أربعاً وأربعين فقرة موزعة على ثلاثة مجالات وهي: التخطيط والتنفيذ والتقييم. يتضمن اختبار التفكير ما وراء المعرفي عشرين عنصراً موزعة على ثلاثة مجالات وهي: التخطيط والمراقبة والتقييم أيضاً. تم التحقق من صدق وثبات أدوات الدراسة، ثم تطبيقها على عينة الدراسة. وتم تحليل البيانات التي تم جمعها إحصائياً. إذ تشير النتائج المستحصلة إلى أن البرنامج التدريبي الذي تم بناؤه قد حسن أداء المدرسين وكذلك تفكيرهم ما وراء المعرفي. وانتهت الدراسة ببعض الاستنتاجات والتوصيات.

الكلمات المفتاحية: برنامج تدريبي، نموذج شوارتز، التأثير، أداء المدرسين، التفكير ما وراء المعرفي

1. Introduction

1.1 Statement of the Problem: The world has witnessed a number of information challenges in the fields of life in general and of education in particular. In the field of education, there have been changes and developments in the inputs, processes and outputs of education, and if the education system remains as it is, it is unable to face these challenges and developments. Since, the teacher bears a large part in the face of these challenges, attention must be paid to preparing and training him/her to be able to keep up with the rapid changes and developments in the field of knowledge and overcome the raised problems (Ghaidan, and Touma, 2010).

Teacher's teaching performance is the most crucial in the field of education. Whatever policies may be laid down, in the ultimate analysis these have to be interpreted and implemented by teachers, as much through their personal attitudes as through the teaching-learning process. The teacher today faces many challenges, emanating from expanding horizons of knowledge, cultural and modern changes and the rapid scientific developments as well as other factors that affect learners' consciousness. Therefore, educators have realized that teaching is an uphill profession that requires a great deal of training and special qualification on the part of a teacher (Marie, 2018).

In recent years, metacognitive thinking (henceforth, MT) has received great attention because of its importance in improving the way trainees think, as it increases trainees' awareness of what they are studying. The practice of MT helps the trainer to perform several roles at once, especially when facing a specific problem or during the educational situation. He acts as a creator of ideas and planner, critic, observer of progress, supporter of a particular idea, guide to certain behaviour, and organizer of solution steps. This is what makes him in front of multiple options, and evaluates each of them and chooses what he sees as the best, and thus be a productive thinker (Bellanca et al., 2019).

Modern education has given a great importance to training programmes (henceforth, TPs) and viewed them as the cornerstone of the educational process. This is because of their great importance in achieving their objectives and translating the curriculum objectives into concepts, trends and tendencies that the schools aspire to achieve. They have a clear impact on students' attitudes towards the subject and their teachers and they depend on the teacher's success or failure in his work (Garrow, 2004).

Yuniarti and Lingga (2019) state that educational training programme (henceforth, TP) aims to develop the teaching performance of teachers during the service and work to provide them with knowledge and skills, so that they can keep pace with educational development and be a source for renewing their ideas and performance in their educational environments. In-service TPs are a natural extension of pre-service, which means that continuing education is an integral part of the process of preparing EFL teachers, and this preparation will continue throughout their teaching period with the aim of acquiring new knowledge, teaching skills and experiences in this field.

To the best knowledge of the researcher and as many scientific studies assured such as, Washington (2011) and Mallia (2015), English as a Foreign Language (henceforth, EFL) teachers are not well qualified and mostly follow traditional methods which are deficient and traditional (Strong, 2011). Moreover, those teachers lack a lot of in-service training in the field of new trends for teaching EFL

to the students at the various levels of their study (Tanriverdi and Turan, 2012). Therefore, they are in need of modern teaching programmes that qualify them professionally as well as to improve their thinking skills in general and MT in specific. Hence, the current study tries to shed light on this problematic situation and find solution through training EFL teachers on a new TP based on the Schwartz Model (henceforth, SM).

1.2 Aims of the Study: This study aims at:

1. constructing a TP in terms of SM.
2. finding its effect on teaching performance of preparatory school teachers (henceforth, PSTs) of EFL.
3. finding its effect on the MT of PSTs of EFL.

1.3 Value of the Study: The value of the study is summed up in the following points:

1. providing a TP to improve the performance skills and the MT of PSTs of EFL in the light of development. Educational institutions can benefit from this TP to train the intended teachers during service.
2. providing EFL supervisors with essential data to evaluate the performance of PSTs in teaching English inside their classrooms.
3. all trainees possess MT skills, but to varying degrees, so this study can contribute to increasing their interest in thinking and its skills.
4. identifying the strengths and weaknesses in the performance of PSTs of EFL and their ability to think, and that help them to enhance the strengths and address the weaknesses, which is therefore reflected on their learners' efficiency.
5. the compatibility of this study with modern educational trends that seek to experimenting the modern strategies in teaching.

Moreover, the results of this study are hoped to be of practical value to the teachers of English in general, and to the PSTs in particular. Thus, this study acquires its value from the fact that there has been no similar study in Iraq that has practical insights on teaching EFL, and in the attempt to find out suitable TP based on SM to aid the PSTs in improving their performance and MT.

1.4 Hypotheses of the Study: The following null hypotheses have been posited:

1. There is no significant difference between the mean scores of the teachers' teaching performance before and after training them on the constructed programme.
2. There is no significant difference between the mean scores of the teachers' MT skills before and after training them on the constructed programme.

1.5 Limits of the Study: This study is limited to:

1. The teaching performance and MT of the EFL teachers who are teaching the preparatory schools students in Tikrit, during the academic year 2022-2023.

2. Schwartz Model steps.

1.6 Operational Definition of Basic Terms: The basic terms used in this study are defined for the purpose of clarity and verification, as follows:

1.6.1 Training Programme: It refers to a series of organized and serial educational activities designed according to SM to train and increase the expertise and skills of PSTs through the steps of this model within sequential sessions, that include teaching skills (planning, implementation, and evaluation) in order to improve their teaching performance and MT.

1.6.2 Schwartz Model: It is a set of procedures used for training of PSTs to improve their performance and MT. It includes a set of basic steps (formulating and setting goals, active thinking, thinking in thinking, application of thinking, and evaluation).

1.6.3 Performance: It refers to the behaviours of PSTs that include skills of planning, implementation, and evaluation to implement educational activities and fulfil their teaching tasks in the classroom, for teaching EFL to preparatory school students.

1.6.4 Metacognitive Thinking: refers to a series of processes that lead to mentally problem solving by deeply thinking and reaching the conclusion of new information through moving from general information to particular information.

2. Theoretical Background

2.1 Process of Teacher's Training and its Importance

Training is a purposeful process to develop the capabilities of trainees by providing them with the necessary information and improving their skills in order to raise the level of efficiency and improve performance. It is a planned process to modify attitude, knowledge or skill behaviour through a learning experience to achieve effective performance in any activity or range of activities. Its purpose, in the learning situation, is to develop the abilities of the learner and to satisfy current and future learners' needs of the educational institutions (Manpower Services Commission, 1981).

Most of the developed countries are interested in teacher training and plan for it on an ongoing basis and seek to advance it by various available means, and these countries use available resources to improve in-service teachers' skills. Nowadays in-service teacher training system has become a necessary requirement so that the teacher does not remain limited-minded in an era in which successive educational developments are increasing rapidly, and the teacher has been given the responsibility to constantly renew his knowledge and

skills to be of a high degree of competence, that is after overshadowed the technology intensively on the educational process. This shows that training has become a necessity imposed by modern educational developments (Osamwonyi, 2016). Towler et al. (2014) and Rodriguez and Walters (2017) believe that training:

1. provides opportunities for the trainee to acquire new knowledge and skills.
2. helps to change trends and gain positive attitudes towards the profession practised by the trainee, which leads to raising his morale.
3. gives the trainee new horizons in the field of practising his profession by informing him of the problems of his profession and its challenges and causes and how to get rid of them or reduce their effects on performance
4. can instill concepts and provide continuous learning methods to the trainee.
5. helps the trainee to open up to others from his colleagues in order to develop him professionally by creating opportunities for friction with colleagues in the context of collective tasks and activities.

2.2 Teacher's Training Programmes

The teacher's TPs aim to develop teachers' teaching performance during service, and work to provide them with knowledge, skills and trends so that teachers can keep pace with educational developments, and be a tributary to renew their ideas and performance in their educational environments (Arora, 2002). Essary (2007) emphasizes the importance of teacher preparation programmes in acquiring cognition and performing skills and providing them with diverse capabilities in order to meet their needs and requirements. In order to keep pace with the era of globalization with all its developments, the teacher should be familiar with the modern methods of learning and teaching, and has the ability to use skills and information in solving scientific problems and their contemporary life applications that exist within the subject.

The process of teacher training based on educational competencies is carried out by identifying the knowledge, skills and attitudes that are necessary for the teacher in order to become successful and effective. Identifying those knowledge and trends should be done in the form of goals that he seeks to achieve through appropriate training and choosing new models for training, which help in developing and raising the efficiency of the teacher, meeting his needs and increasing his self-confidence through his continuous achievements in his field of work (Deniz and Sahin, 2006).

2.3 Teaching Models

Teaching models are models based in their origins on psychological and learning theories. The model is a teaching plan that can be used to organize the

teacher's work and tasks in educational and teaching subjects and experiences (Joyce and Weil, 2017).

Teaching models are important in developing teaching and raising the effectiveness of performance. They build a distinct environment that contains elements that contribute to the development of the educational process and enable learners to understanding of scientific subjects through the teacher's use of the model. The teacher chooses the appropriate model to start applying it within the subject matter taking into account the level of students. Teaching models also achieve many objectives, including guiding the learner towards a better mental and emotional conditions by promoting self-confidence and a real sense of self-esteem. They are helping to increase the proportion of education that stems from the needs and aspirations of the learners themselves (Milman and Clare, 2013).

The adoption of educational models comes from the premise that teaching is not only a science, but has become an art, in the sense, that it requires an organized knowledge of the principles, methods, and strategies of teaching and how to plan for it to achieve the desired goals with a high degree of perfection and measuring its progress towards achieving its goals (Richmond et al., 2016).

Therefore, the current study sought to search for teaching models aimed at achieving the objectives of the desired TP. Schwartz Model with its training strategies (graphic organizers, concepts maps and writing based-thinking), may contribute to help teachers achieve their desired goals. It is considered one of the models that provide optimal solutions for building education. It presents an evolutionary programme that includes all aspects of the successful learner, as well as focuses on the need to practise MT and urge trainees to preserve, initiative and flexibility. Furthermore, this model stresses the importance of monitoring the individual's thinking during the thinking process (Al-Hajjah and Ahmad, 2015).

Schwartz Model aims to integrate the thinking skill into the academic content to prepare wise learners who are distinguished by continuous self- education by integrating a set of skills and processes with mental habits and in a natural way in teaching various educational materials according to clear and practical strategies, tools, techniques and procedures to achieve many educational goals. The model seeks to integrate the skill of thinking throughout the curriculum, which helps learners understand the cognitive content of the subject and increases opportunities for learners to think well (Schwartz and McGuinness, 2014). Schwartz (2001) identifies that the model includes four steps, as shown in figure (1).

Each one of the steps includes a number of executive procedures as follows (Schwartz, 2001):

1. Formulation and identifying goals: The teacher defines and formulates the objectives of the academic content in addition to determining the appropriate thinking skill to achieve the goals and thus add the content as a tool to learn the thinking skill.
2. Active thinking: Giving a greater role to the learner to use mind systems in order to teach the skill of thinking and this step based on incorporating thinking skills within the components of active thinking through mental activities based on thinking about the goals of the content and directing students to use modern methods to support the thinking process.
3. Thinking about thinking: It is the stage of training learners to manage their minds and thinking in which the emphasis is placed on practicing thinking and preparing for the reflective thinking stage before entering in the study content, so that the learner is able to apply the skill in similar situations.
4. Application of thinking: The stage of applying thinking in an automatic way with minimal effort and time comes after learning the required skill.

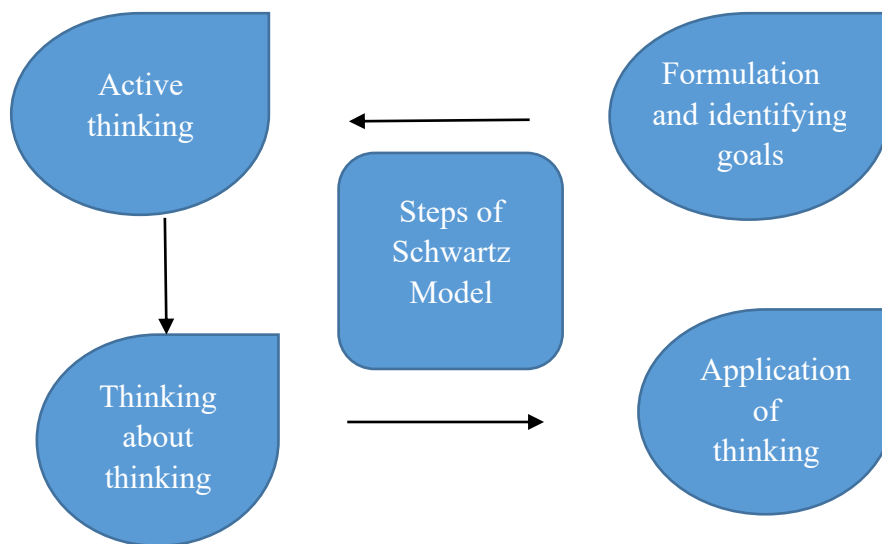


Figure 1 : Steps of Schwartz Model (Schwartz, 2001)

2.4 Teacher's Teaching Performance

Teacher's teaching performance has a broader meaning, it does not only cover the work output, but also on how the work are processed. It means that teacher's teaching performance is the teacher's ability, motivation, and opportunities through which information can be provided to learners. Teacher's teaching performance is the work output either its quality or quantity attained by human resource based on

the consideration of work efficiency and effectiveness in performing the duties along with the responsibilities charged on him (Mangkunegara, 2005).

Teacher's teaching performance is the professional ability performed by the teacher, based on ease, accuracy and understanding, with saving the greatest amount of effort and costs. Its aim is to help the learner to learn and thus, bring about a change in the behaviour of the learner. It can be developed in several ways, such as educational preparation that precedes the teaching process, experiences, and previous experiences in this subject. Teacher's teaching performance varies according to the nature, characteristics of the subject to be taught, the characteristics that characterize that material, and the objectives behind learning this subject (Grote, 2002).

Kanmaz and Uyar (2016) observe that knowing of teaching skills and their application by the teacher is a necessary factor for the correct educational construction, which connects theory and practice, these skills are:

1. Planning: It is the first skill that must be mastered by the teacher who seeks to be distinguished in his work, whereby the teacher prepares the topic to be taught to the students, how it is taught. The planning process requires a high ability, through which the nature of the target group (learners) is known, know their important needs, to present them during teaching, as well as identifies the abilities of those students in order to improve them. Thus, the teacher will be able to set the objectives of the educational process, analyze the content of the material to be taught, and determine the optimal way to present the scientific material, then to reach an elaborate plan for the lesson he will present.
2. Implementation: This skill includes all the practices that the teacher does, and achieves within the classroom, it includes many other skills such as preliminary, using of teaching aids, the art of asking questions, assignments, and close the lesson.
3. Evaluation: It has a great importance in the educational process as follows:
 - Explain the extent of learners' educational achievement, and the competencies they excel at the end of the academic year.
 - Provide the teacher with reliable foundations in setting learners' grades in a fair manner. Thus, obtaining data that shows the level of learners.

2.5 Metacognitive Thinking

According to Li (2019), the concept of thinking is redefined as critical thinking, reasoning, cognitive awareness by scholars of several different disciplines. He recognizes that the concept of "MT skills" is a common name of skills that not only help current knowledge to be understood but also help them to be organized and used.

Metacognitive thinking skills have many benefits for learners and teachers, and researchers must be fully aware of their importance and training to use them. Most experts in the field of psychology agree that any effort to teach thinking skills remains incomplete unless it meets the task of helping learners to develop thinking skills about thinking or MT skills. After good training in their use, the learners master these skills and practise them. Therefore, all this has an impact on learners, which improves their problem-solving and decision-making abilities and also increases the independence of learner's thinking and its effectiveness in practising self-guided thinking, which is the goal of teaching the MT skills (Moore, 2019).

According to Isgor (2016) MT skills refer to all skills of critical and creative thinking, decision making and problem solving. Critical thinking is a form of thinking which consists of mental processes such as, reasoning and assessment. Decision making is defined as a process of sufficiently decreasing doubts and uncertainties while choosing the right options among many options. Problem solving is to carry problem status into solution and to overcome difficulties. The aim of decision making is to choose or evaluate the best option (Sternberg and Grigorenko, 2000).

Anderson (2002) states that the MT in learning process can be divided into four major components, as follows:

1. Preparing and planning for learning, it is the first step to take in the MT in learning process and it means a number of things. First, an individual creates a mindset regarding a particular activity. One establishes learning objectives and determines if such goals are worthwhile, compatible with his needs, and achievable. At this stage, one's person knowledge" has been shown to influence his choice of learning objectives and the criteria used for evaluating learning outcomes" (Wenden, 1998).
2. Selecting and using learning strategies, i.e. deciding how to complete the activity is the next step in the MT in learning process. Employing mnemonic devices and using contextual clues are examples of learning strategies. This is an important step as "the MT ability to select and use particular strategies in a given context for a specific purpose means that the learner can think and make conscious decisions about the learning process" (Anderson, 2002).
3. Monitoring strategy use, it enables students to direct their own progress. Directly, when the learner has chosen and implemented strategies, he must regularly question himself whether those strategies are being used as originally intended (Anderson, *ibid*). That is to say, the use of strategies. Monitoring is " the regulatory skill that oversees the learning process that follows the initial planning ". This allows an individual to determine if he is reaching the learning objectives. Furthermore, monitoring requires taking appropriate measures to deal with difficulties that interfere with the learning process. (Wenden, *ibid*). Thus, monitoring can result in the modification and / or expansion of one's existent

metacognitive knowledge. Naturally, this implies that a person has more than one strategy at his disposal and may ask himself how he should proceed, what other opportunities are available, and how to resolve gaps in understanding (Burger and Starbird, 2012).

4. Evaluating strategy use and learning requires an individual to reflect on and question the effectiveness of his actions. This aspect of the metacognitive learning process incorporates the last step. In Anderson's words (2002), the whole cycle is evaluated during this stage. That is to say, it considers the objectives and the ensuing use, effectiveness, and substitution of strategies. One asks himself how well he did, what alternatives would have changed the outcome, and whether the knowledge is transferable. It is important to note here that, in fact, all the five components interact with each other throughout a given task.

It is concluded that in-service training is of great importance in providing teachers with the necessary basic skills that contribute to raising the level of their teaching performance and developing knowledge and skills to use modern methods of teaching, which lead to the improving of the teacher's self-confidence, and then raise his scientific and cultural level. Besides, MT skills are very important in learning and play a significant role for learners in determining the problems that they encounter and in acquiring proper ways of solutions. The present study has applied the constructed a training programme based on the Schwartz Model for the purpose of improving PSTs teaching performance and MT.

3. Procedures

3.1 Descriptive Approach to Constructing the Training Programme

3.1.1 Justifications of Constructing the Training Programme

Emelyanova and Teplyakova (2015) and Palina et al. (2023) state that the following points are important justifications for the purpose of constructing the TP.

1. The need to construct a specific TP for teachers which is appropriate for their needs, capabilities, and keeps pace with developments in the preparation of TPs.
2. The need to organize the items of the educational content appropriately for the teachers, diversify activities and showing the role of teacher to facilitate learning.
3. The need to diversify teaching strategies in line with the characteristics and thinking of the teacher.
4. The need to provide educational content in an orderly (non-random) manner according to specific objectives.

3.1.2 Stages of Constructing the Training Programme

Elsayary (2023) states that the process of constructing a TP includes three stages, namely:

3.1.2.1 Planning Stage: This stage includes two main steps:

1. Analysis: it includes:
 - a. Identifying learners' needs and characteristics: PSTs have been selected as a sample of the current study, and they are from the youth category, i.e. mental functions and the acquisition of information and skills do not stop at this age but, improves with increased experience and learning as well as, grow their thinking and comprehension abilities (Walker, 2020).
 - b. Analysis of the educational environment: Vargas (2020) mentions that the interaction between the needs of learners and the circumstances of the surrounding environment is an important factor in explaining learners' educational behaviour. The elements of the educational environment are: physical environment and psychological environment
 - c. Select the target population: The population of the current study includes all the PSTs who are teaching EFL in Tikrit, whose total number is seventy with the three teachers excluded.
2. Constructing the Training Programme: Includes a series of steps, as follows:
 - a. Setting the Objectives of Programme: (Al Heela, 2012) and Petersen (2018) mention that educational objectives are divided into the following types:
 - General Objectives: They are formulated after reviewing the related sources and exposed to a jury of educational and specialists in the field of methodology and linguistics. In the light of their notes and remarks, those objectives are sets and considered as the first step in the process of constructing the TP.
 - Behavioural Objectives: Those objectives have been exposed to the same jury of educational and specialists in the field of methodology and linguistics to be included in the TP (in each topic of the programme) to be reviewed by the intended trainees and what should be achieved through the lesson.
 - b. Choosing the Content of Programme: The educational content of the constructed TP includes a set of facts, values, concepts, information, knowledge and skills provided by the TP with a view to bringing about the desired changes in PSTs behaviour in accordance with the identified objectives.
 - c. Identifying the Methods of Teaching: Methods of teaching are considered a basic element in constructing the TP because, they are closely linked to objectives and content (Ledford et al., 2019).
 - d. Educational Activities and Teaching Aids: The choice and implementation of educational activities must be linked to the curriculum, performed or implemented accurately, based on prior planning, diverse, involving a large

number of students, and also subject to evaluation (Al Dhahir, 2009). As for teaching aids, various aids re used to allow the learners to gain experience through their actual practices of activities such as: board, colour markers, charts, figures, data show and laptop (Joseph, 2015).

3.1.2.2 Implementation Stage (training sessions)

DiPaola and Hoy (2008) state that the implementation stage includes some procedures on how to adopt SM in the design of the training sessions, as follows:

1. Sessions are taught according to specific steps.
2. Taking into account the availability of educational situations in each session by linking the session to the experiences of teachers.
3. Organizing sessions according to the skills of analyzing critical and creative thinking.
4. Prepare appropriate educational environment and enrichment resources.
5. Organize the lesson planning.

3.1.2.3 Evaluation Stage

Two types of evaluation used in the current TP, as follows:

1. Formative evaluation: The performance of the trainees has been evaluated during and after teaching each of the topics of the programme, in order to discover, promote and treat the pros and cons of the trainees, through (oral questions), and mutual exploratory dialogue, between the teacher and the trainees.
2. Summative evaluation: The trainees have been subjected to an observation checklist for teachers' teaching performance and a MT test at the end of the programme to assess the effectiveness of the TP.

3.1.3 Feedback

It is adopted when implementing the TP, through listening to what trainees have to say about their learning and understanding of concepts and skills, evaluate their understanding of those concepts and skills through tests and discussions.

3.1.4 Validity of the Training Programme

Content validity of the constructed TP is achieved by constructing a TP that includes a number of topics that, as shown in appendix (A). Face validity of the programme has been confirmed by exposing it to a jury of educational and specialists in the field of methodology and linguistics, and their points of view agreed on the validity of the programme by more than 80%.

3.2 Experimental Approach

In the current study, the experimental approach is adopted because, it is appropriate for the aims and hypotheses of the study. It includes an attempt to control all the variables and fundamental factors affecting the dependent variables in the experiment except for one variable controlled by the researcher, i.e. SM. The observation checklist and the MT test have been designed and applied to the study sample before and after the application of the TP, as shown in table (1).

Table 1. The Experimental Design

Group	Pretest	Independent variable	Dependent variable	Posttest
Experimental	Observation checklist for assessing teacher's performance	Training programme	Teacher's performance	Observation checklist for assessing teacher's performance
	Metacognitive thinking test		Metacognitive thinking	Metacognitive thinking test

3.2.1 Population and Sampling

English as a foreign language PSTs for boys and girls in the center of Tikrit city for the academic year 2022-2023 represent the original population of this study. The total number of those teachers is seventy-three who are distributed among twenty-eight preparatory schools. Three of those teachers have been excluded because of their experiences is more than fifteen years. The residual number becomes seventy as shown in Table (2). A sample of fifty EFL teachers has been randomly selecting from the whole population of teachers. The selected sample represents 71.43% of its original population.

Table 2. Names of the Selected Schools and the Total Number of EFL Teachers and Number of the Study and Pilot Sample

No. of Schools	School Name	Total No. of Teachers	No. of Study sample	No. of Pilot sample	No. of Schools	School Name	Total No. of Teachers	No. Of Study sample	No. of Pilot sample
1	Khalid Bin Al-Waleed Preparatory School for Boys	3	2	1	15	Abn Al-Muatem Preparatory School for Boys	3	1	2
2	Al-Mugheera Preparatory School for Boys	2	1	1	16	Al-Tawheed Secondary School for Boys	2	2	0
3	Al-Furqan Preparatory School for Boys	2	2	0	17	Sumayah Secondary School for Girls	2	2	0
4	Al-Mehzum Secondary School for Boys	3	2	1	18	Al-Mehzum Secondary School for	3	2	1

						Girls			
5	Al-Bayan Preparatory School for Girls	2	2	0	19	Al-Khansaa Preparatory School for Girls	2	1	1
6	Al-Merjaan Secondary School for Girls	3	2	1	20	Tikrit Secondary School for Al-Mutamayzeen	3	2	1
7	Al-Baaroody Preparatory School for Girls	2	2	0	21	Tikrit Secondary School for Al-Mutamayzaat	3	2	1
8	Maysaloon Secondary School for Girls	3	2	1	22	Al-Mutafauqeen Secondary School	3	2	1
9	Maysaloon Evening Secondary School	3	2	1	23	Al-Mutafauqaat Secondary School	3	2	1
10	Al-Aqeedah Secondary School for Boys	3	2	1	24	Al-Zhoor Secondary School for Girls	2	1	1
11	Al-Mustansiriyah Secondary School for Girls	3	2	1	25	Jamal Al-Dabban Secondary School for Girls	2	1	1
12	Omro Bin Jundub Al-Qafary Preparatory School for Boys	2	2	0	26	Al-Jaameah Coeducational Secondary School	2	2	0
13	Al-Aseel Secondary School for Girls	3	2	1	27	Tikrit Evening Secondary School	2	1	1
14	Um Al-Muamneen Secondary School for Girls	2	2	0	28	Oqbah Bin Nafea Secondary School for Boys	2	2	0
T o t a l							70	50	20

3.2.2 Instruments of the Study

In the current study, two instruments are used to measure the two dependent variables. An observation checklist is used to measure the efficiency of teacher's teaching performance, and MT test to measure their ability in this property. The two instruments have been constructed, as follows:

3.2.2.1 Construction of the Observation Checklist

Checklists provide a systematic procedure for obtaining and producing the judgments of observers. They are especially useful in observing those performance skills that can be divided into a series of clearly defined and specific actions. "A checklist is basically a method of recording whether a characteristic is present or absent" (Thorndike, 2011). An observation checklist of three-point scale has been constructed to assess the efficiency of teacher's teaching performance. It includes forty-four items distributed among three areas, fifteen items in the area of planning, fifteen items in the area of implementation, and fourteen items in the area of evaluation, as shown in Appendix (B). The three areas and the forty-four items of the constructed checklist which is used to record teachers' teaching performance inside their classrooms have been drawn from the following sources: a. Teacher's book for each level (fourth, fifth, and sixth) of preparatory stage b. Related literature and previous studies, c. Ministry of Education checklists.

In order to ascertain the face validity of the constructed checklist, it has been exposed to a jury of educational and specialists in the field of methodology and linguistics. The percentage of their agreement about each item is considered to achieve the face validity of the adopted checklist. Content and constructed validity have been achieved too. The reliability as well as the discrimination power of the constructed checklist items have statistically been obtained.

3.2.2.2 Pilot Study

A pilot study is a small experiment designed to test logistics and gather information prior to a larger study, in order to improve the latter's quality and efficiency (Oppenheim 1992). Hence, twenty PSTs of English from the original population in the city of Tikrit, have been observed in their classrooms (see table 2). This is to know the clarity of the items and determine the required time for teachers' observation, identify the appropriateness of the checklist items, as well as finding the discrimination power and finally, estimating the reliability of the checklist.

3.2.2.3 Observation of Teachers

After ensuring the validity and obtaining the reliability as well as the discrimination power of the constructed checklist items, the involved sample of teachers has been observed individually at their own schools before the start of the TP for a period of eleven days, i.e. from the 16th to the 26th of October of the academic year (2022-2023). At the end of the preobservation period, the trainees have been subjected to the constructed programme for the period from the 30th October 2022 to the 11th December 2022, and then the observation is repeated and re-visit for a period of eleven days, i.e. from the 12th to the 22nd of December by the researcher himself and another observer. Six teachers are visited per day, three in the morning and three in the evening. Each teacher is observed for twenty minute, through which his teaching performance is evaluated in terms of the constructed checklist. The observers sit at the back of the classroom and tick 'Always' for the item that always practised by the teacher, 'Sometimes' for the items sometimes practised by the teacher, and 'Seldom' for the item that seldom practised. Finally, the required data has been collected and scored.

3.2.2.4 Construction of the Metacognitive Thinking Test

The MT test has been constructed in terms of the content as well as the behavioural objectives of the instructional materials. The test includes twenty items distributed among three basic areas. The first area (items 1-6), tests the skill of planning, the second area (items 7-13), tests the skill of monitoring, and the third area (items 14-20) tests the skill of evaluation. One score is assigned for each item, (0-1) scale. Hence, the highest score of the test is 20. Each item has been organized

in the form of multiple choice, that is, three choices for each: two are incorrect and only one choice is the needed skill in the definite situation (see Appendix C).

To fulfil the requirements of the intended test, face, content and construct validity are ensured. Construct validity is achieved by using the item total correlation method. The computed correlation coefficient value is higher than the tabulated value 0.195 which indicates that all the test items are valid. To ensure reliability of the present test, the alpha Chronbach is used. The test is reliable in accordance with the Alpha Cronbach value which is 0.88. In addition, the discrimination power for each item of the test has been computed. Hence, the pre-test has been applied on the 27th of October 2022 for the study sample. The test papers have been distributed to the involved trainees who are required to read them carefully and put their answers clearly on the test papers within the limited time of the test.

3.2.3 Application of the Training Programme

The TP started in the hall of the Department of Tikrit Education on Sunday 30th October 2022, with two sessions per week where the time of each session is two hours, between them a ten-minute break and the application of the TP ended on Sunday 11th December 2022. The application of the TP was through using the modern technologies such as, data show, artificial intelligence, and video conferencing and strategies such as collaborative learning and game-based learning. After the completion of the sessions of the TP, the posttest of MT has been applied. Both the pre and posttest are administered in the same place of application of the TP.

4 . Analysis of Data and Discussion of Results, Conclusions and Recommendations

4.1 Analysis of Data

4.1.1 Results Related to the First Aim

The first aim has been achieved through identifying the justifications and stages of constructing the TP through item 3.1.1 and 3.1.2.

4.1.2 Results Related to the Second Aim

The second aim is achieved through verifying the first hypothesis that states " There is no significant difference between the mean scores of the teachers' teaching performance before and after the application of the TP". The mean scores and standard deviation of the trainees' performance in the post application of the observation checklist are 17.84 and 7.17, respectively. T-test formula for two related sample is used. The calculated t-value is 12.54, at (0.05) level of significance and (49) degree of freedom, as shown in table (3). Since the calculated t-value is higher than the tabulated t- value which is 2.00, it means that there is a significant

difference between the trainees' teaching performance, and in favour of the post application of the observation checklist. Thus, the first hypothesis is reject.

Table 3. The Mean Scores, Standard Deviation, and T-Values of the Pre and Post Applications of the Observation Checklist

Area		Mean	SD	Mean of differences	SD of differences	T- Value		DF	Level of Significance
						Calculated	tabulated		
Planning	Pre	26.00	4.79	6.56	2.55	12.86	2.00	49	0.05
	Post	32.56	4.57						
Implementation	Pre	25.92	5.12	7.64	3.43	11.15			
	Post	33.56	4.52						
Evaluation	Pre	21.48	3.80	3.64	2.71	6.73			
	Post	25.12	4.07						
Total	Pre	73.40	13.23	17.84	7.17	12.54			
	Post	91.24	12.20						

4.1.3 Results Related to the Third Aim

The third aim is achieved through verifying the second hypothesis that states "There is no significant difference between the mean scores of the teachers' MT skills before and after the application of the TP" . The mean scores and standard deviation of the trainees' achievement in the posttest have been obtained which are 3.00 and 3.19, respectively. T-test formula for two related sample is used. The calculated t-value is 4.70, at (0.05) level of significance and (49) degree of freedom, as shown in table (4). Since the calculated t-value is higher than the tabulated t- value, it means that there is a significant difference between the trainees' achievement in the pretest and that in the posttest, and in favour of the posttest. Thus, the third hypothesis is also rejected.

Table 4. The Mean Scores, Standard Deviation, and T-Values of the Pre and Post Applications of the Metacognitive Thinking Test

Area		Mean	SD	Mean of differences	SD of differences	T- Value		DF	Level of Significance
						Calculated	Tabulated		
Planning	Pre	3.80	0.96	1.16	1.31	4.42	2.00	49	0.05
	Post	4.96	0.89						
Monitoring	Pre	3.88	0.88	0.96	1.06	4.53			
	Post	4.84	0.75						
Evaluation	Pre	4.16	0.99	0.88	1.20	3.66			
	Post	5.04	0.68						
Total	Pre	11.84	2.44	3.00	3.19	4.70			

	Post	14.84	1.97						
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4.2 Discussion of Results

The results obtained from the current study show that the proposed TP has improved the PSTs teaching performance in the various areas of the observation checklist. Results also show that the TP has improve the MT of the involved PSTs.

The improvement of the teachers' teaching performance and their MT could be attributed to the following factors:

1. English as a foreign language teachers have been trained on a theoretical and practical materials which include strategies, methods of teaching, skills, activities and modern thinking patterns that help in making the training process enjoyable and interesting.
2. The TP is prepared according to a model commensurate with the modern concept of education in focusing on the learner as an important part in the educational process in gaining experiences and using mental and performance skills not only memorization and retrieval of information.
3. The TP emphasizes the creation of a democratic atmosphere characterized by freedom to express opinions, present and discuss ideas, and make teachers think of new patterns of thinking.
4. The application of the TP has enabled the trainees to master the skills of teaching performance and apply them in the classroom and stay away from randomness in the presentation of the lesson.
5. The presence of various evaluation methods in the TP contributed in mastering this skill by teachers.
6. The use of feedback during teachers' training has a positive impact on consolidating information in the teachers' minds.
7. The use of modern technologies such as, data show, artificial intelligence, and video conferencing have a positive impact on developing the performance of learners.
8. The TP has a major role in motivating and increasing the motivation of learners because of its modernity, which led to creating a spirit of competition for them
9. The application of the TP gives the trainees a greater opportunity to participate in the lesson and group work.
10. The trainees' familiarity with the items of the observation checklist and their understanding of its objectives has improved their performance in all of its areas (planning, implementation, and evaluation).

4.3 Conclusions

In the light of the obtained results it is concluded that:

1. the TP based on the SM has improved the teaching performance of the PSTs of EFL.
2. the clarity of TP and the familiarity of respondents with the objectives that meet their training needs make training more effective.
3. the containing of the TP practical activities in addition to the theoretical aspect increases their effectiveness and helps trainees develop their skills and knowledge
4. the multiple strategies included in the TP have helped the trainees to know the modern strategies that have an effective impact on raising their efficiency in teaching.
5. the improvement of the teachers' teaching performance and MT helps them to master and convey the instructional material to their students.
6. using modern teaching methods has encouraged the trainees to participate and interact with each other and with the trainer in the lesson activities.

4.4 Recommendations

On the basis of the obtained results and drawn conclusions, some recommendations are put forward:

1. EFL teachers are recommended to share in modern TPs to improve their teaching performance as they are the cornerstone of the educational process.
2. The EFL teachers require to reinspect their education and do their best to cope with the recent innovations in order to expand their knowledge and experiences.
3. The EFL teachers get training on modern thinking patterns, which qualify them for creativity and innovation to serve educational process.
4. Methods of teaching English course, that include modern strategies for constructing educational programmes should be given to EFL student teachers.
5. Teaching thinking and MT should be included in the in-service training courses of the colleges of education.
6. General Directorate of Education in Salah Al-Deen applies the programme prepared by the researcher to all EFL teachers to improve their skills and ways of thinking to serve the educational process.
7. Ministry of Education should benefit from TPs based on modern models in delivering scientific material to students.

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Appendices

A Letter to the Jury Member

Dear Sir, Madam

The researcher intends to carry out a Ph. D. study entitled **"A Training Programme Based on Schwartz Model and its Effect on EFL Preparatory School Teachers' Performance and Metacognitive Thinking"**.

To fulfil the requirements of the study, the following tools will be constructed:

- A. A list of content of the training programme for EFL preparatory school teachers
- B. A checklist for assessing teaching performance of EFL teachers.
- C. A test for assessing metacognitive thinking of EFL teachers.

The researcher will be grateful if you, as a specialist in the fields of linguistics and methodology of teaching English as a foreign language to identify whether the constructed tools are appropriate or not by putting a tick √ in the appropriate column. Any required modifications, omissions, or additions will be highly regarded.

Thank you for your cooperation

The Researcher

Appendix (A)

Content of the Training Programme for PSTs

No.	Topics	Items	Scheduled hours		
			Theoretical	Practical	Total
1	The Concept of English language	-Definitions of EL - History of EL -Characteristics of EL	2	0	2

No	Topics	Items	Scheduled hours		
			Theoretical	Practical	Total
2	Educational objectives of English Language	-Definitions of educational objectives - Sources for deriving educational objectives -Levels of educational objectives - Formulating behavioural objectives -Classification of behavioural objectives	2	0	2
3	Planning for Teaching EFL	- Definitions of lesson plan -Types of planning for teaching - Importance of planning for teaching - Characteristics of lesson plan	1	1	2
4	Methods of teaching EFL	-Types of methods of teaching EFL - Characteristics of the methods of EFL teaching -English for Iraq series and CLT	2	0	2
5	Grammar Translation Method	- Definition of the GTM -The goals of teachers who use the GTM -The role of the teacher and learners -Characteristics of the GTM	2	0	2
6	Direct Method	- Definition of the DM -The goals of teachers who use the DM -The role of the teacher and learners -Characteristics of the DM	2	0	2
7	Audio Lingual Method	- Definition of the ALM -The goals of teachers who use the ALM -The role of the teacher and learners -Characteristics of the ALM	2	0	2
8	Communicative Language Teaching	- Definition of the CLT -The goals of teachers who use the CLT -The role of the teacher and learner -Characteristics of the CLT	2	0	2
9	Brainstorming method	-Definition of the brainstorming method -Objectives of using brainstorming method -Requirements of using brainstorming method - Characteristics of brainstorming method	1	1	2
10	E-Learning	-Definition of e-learning - Justifications for using e-learning -Characteristics of using e-learning -Objectives of e-learning -Styles of e-learning -Components of e-learning	1	1	2
11	Teaching aids	- Definition of teaching aids -Types of teaching aids -Importance of teaching aids -The teacher's role in using the teaching aids -Characteristics of a good teaching aids	1	1	2
12	Testing	- Definition of testing	2	0	2

No.	Topics	Items	Scheduled hours		
			Theoretical	Practical	Total
		- Types of testing -Qualities of a good test -Purposes behind testing			
13	Evaluation	- Definition of evaluation -Types of Evaluation - Characteristics of evaluation - Importance of evaluation	2	0	2
	Total		22	4	26

Appendix (B)

The Observation Checklist

Item No.	Planning Area	Always	Sometimes	Seldom
	The teacher should:			
1	plan a lesson that meets the interests and needs of the learners.			
2	analyze the lesson content logically.			
3	identify aspects of integration in the lesson content.			
4	formulate lesson objectives according to the cognitive level.			
5	determine the prerequisites for the presenting the topic of the lesson.			
6	ensure the horizontal integration during the lesson.			
7	ensure the vertical integration during the lesson.			
8	implement educational activities suitable for students to achieve integration.			
9	design educational situations that help students acquire knowledge.			
10	possess the ability to divide the lesson time according to the importance of the presented material.			
11	include different teaching models and strategies suitable for learners.			
12	prepare appropriate teaching aids to achieve the objectives of the lesson.			

13	identify evaluation methods to evaluate objectives achieved.			
14	identify the means of suspense and excitement while formulating questions in the class.			
15	prepare a yearly, monthly or weekly plans.			

Item No.	Implementation Area	Always	Sometimes	Seldom
	The teacher should:			
1	review the previous lesson to integrate it with the current one.			
2	use modern teaching aids and techniques to present the lesson activities.			
3	link any new knowledge to the previous knowledge.			
4	discuss the learners according to their levels and abilities.			
5	link educational activities to the learners' environment and society.			
6	link learning to the current and regional events.			
7	link learning to scientific developments in the scientific field.			
8	encourage learners to think, discuss and innovate responses.			
9	encourage the learners to self-learning, continuous learning and diversification of learning sources.			
10	respect learners' opinions and suggestions.			
11	allocate time during the implementation of the lesson to achieve integration.			
12	engage learners into pair and group work.			
13	use the closing skill at the end of each topic.			
14	listen to learners' answers and modify wrong ones.			
15	simplify any difficult material to be easily understood by the learners.			

Item No.	Evaluation Area	Always	Sometimes	Seldom
	The teacher should:			
1	use the pre-evaluation to determine the learners' ability before the start of the lesson.			

2	use the diagnostic evaluation to determine the strengths and weaknesses of learners.			
3	use the final test to assess the level of learning after the end of the lesson.			
4	observe learner's interaction during the lesson.			
5	use a specification table to prepare valid tests.			
6	apply oral questions to ensure learners' ability to listen and speak.			
7	conduct short quizzes periodically during teaching.			
8	follows-up the assignment of the learners constantly and correct their mistakes.			
9	pay special attention to the talented students.			
10	pay special attention to learners who suffer from learning difficulties.			
11	analyze learners' mistakes and identify their causes to enable the learners to avoid them.			
12	allow learners to discover their mistakes and attempt to correct them by themselves.			
13	use evaluation results to create motivation for the learner's learning.			
14	ask questions that provoke learners' thinking.			

Appendix (C)

Metacognitive Thinking Test

Area	Item No.	Content	Behaviours	Score
Planning	1	Before reading	a- I understand the text from its title. b-I scan the text to understand its structure. c- I use some techniques to understand the text and then choose the suitable one.	1
	2	For understanding	a-I underline the main theme of the text. b-I read the whole text. c-I re-read the text several times.	1
	3	Through reading the title	a-I sometimes predict the main theme of the text. b- I do predict the main theme of the text. c-I do not predict the main theme of the text.	1
	4	To determine the main ideas of the text	a-I divide the text into paragraphs. b- I do not focus on the bold typed and italicized or underlined words and sentences. c-I focus on the bold typed and italicized or underlined words and sentences.	1

	5	When focusing on the title	a-I do not think of the practicality of the text. b-I sometimes think of the real practices of the text. c-I do think of the real practices of the text.	1
	6	For better understanding	a-I do not write notes or underline the important words and sentences. b-I prefer underlining the important words and sentences. c-I prefer writing notes as I read the text.	1
Monitoring	7	In case of having a difficulty in understanding the text	a-I read the text in a hurry to understand it. b-I re-read the text normally. c-I read the text slowly to understand its theme.	1
	8	In case of having a difficulty in reading the text	a-I continue reading the text. b-I change my reading style. c-I underline the difficult points to re-focus on them.	1
	9	While reading the text	a-I do not test my comprehension of the text. b-I sometimes attempt to test my comprehension of the text. c- I test my comprehension through remembering the themes I read.	1
	10	After finishing reading the text	a-I do not predict the themes of the text that I will read. b -I sometimes predict the themes of the text that I will read. c- I do predict the themes of the text that I will read.	1
	11	For the best comprehension	a-I read the text in a hurry. b-I read the text from its very beginning to connect its related ideas. c-I stop a while to remember the text I read.	1
	12	To underline the main themes while reading	a-I connect the themes in my mind. b-I write a question for each theme I read. c-I underline the sentences including the main themes.	1
	13	In case of losing comprehension while reading	a-I continue reading. b-I attempt to remember the main theme, and then continue reading. c-I re-read the text from its very beginning.	1
Evaluation	14	For ensuring comprehension	a-I avoid estimating my comprehension. b-I write questions and try to answer them. c-I attempt to remember the main themes and write them in my own style.	1
	15	After finishing the text	a-I do not attempt to analyze the text. b-I sometimes attempt to analyze the text. c- I do attempt to analyze the text.	1
	16	For evaluating the text	a-I extract practical applications for the information I acquired.	1

			b-I connect the new information with my previous knowledge. c- I argue with someone about the information to be concluded.	
17	For giving my opinion about the text		a- I judge the style of text structure but not its main themes. b-I compare the title with the content. c-I compare the main theme with the theme I predict, before starting reading.	1
18	For evaluating the level of my comprehension .		a-I write notes on the text. b-I connect the main sentences previously underlined. c- I summarize the text in my own style.	1
19	In case if I do not comprehend the text		a-I re-read the text in the same way. b-I attempt to discover my faults and correct them. c-I change my strategy of reading as it is not efficient.	1
20	For benefiting from the text		a-I do not want to benefit from the text. b-I debate with my colleagues about the main themes in the text. c-I think of the practical applications of the text.	1
T o t a l				20