



**The Effect of Five E's Learning Cycle Model in Teaching English Language for EFL
Preparatory School Students**

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Abstract:

The present research aims at investigating the effectiveness of using the 5E Model in teaching the English language to EFL preparatory school students. The researcher adopted the experimental design and used a sample of (110) female students at Al-Maysaloon Preparatory school/ in the city of Tikrit during the academic year (2021-2022). The sample is divided into a control group with (55) students and an experimental group with (55) students. The two groups are equalized according to certain variables. The students in the experimental group are taught by using the 5E Model, whereas, those in the control group are taught by using the communicative method. The researcher used a pretest and posttest which are conducted on the sample at the end of the experiment which is (12) weeks. The obtained results have shown that there are significant differences between experimental and control groups, in favour of the experimental group.

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أثر نموذج دورة التعلم خماسي المراحل في تدريس اللغة الإنجليزية لطلاب المرحلة الإعدادية للغة الإنجليزية كلغة أجنبية أ.م.د. دنيا طاهر حميد

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المخلص:

يهدف البحث الحالي إلى التحقق من فاعلية استخدام نموذج E5 في تدريس اللغة الإنجليزية لطلاب المرحلة الإعدادية للغة الإنجليزية كلغة أجنبية. اعتمدت الباحثة التصميم التجريبي واستخدمت عينة قوامها (١١٠) طالبة في مدرسة ميسلون الإعدادية / في مدينة تكريت خلال العام الدراسي (٢٠٢١-٢٠٢٢). تم تقسيم العينة إلى مجموعة ضابطة قوامها (٥٥) طالباً ومجموعة تجريبية قوامها (٥٥) طالباً. يتم معادلة المجموعتين وفقاً لمتغيرات معينة. يتم تدريس الطلاب في المجموعة التجريبية باستخدام نموذج E5 ، بينما يتم تدريس الطلاب في المجموعة الضابطة باستخدام طريقة التواصل. استخدم الباحث الاختبار القبلي والبعدي الذي يجري على العينة في نهاية التجربة ومدته (١٢) أسبوع. أظهرت النتائج المتحصل عليها وجود فروق ذات دلالة إحصائية بين المجموعتين التجريبية والضابطة لصالح المجموعة التجريبية.

الكلمات المفتاحية: فعالية ، نموذج E5، تدريس اللغة الإنجليزية

Section One: Introduction

1.1 Statement of the Problem

Language is one of the most important things in communication and it is used as a communication tool among the nations around the world. As an international language, English is very significant and has many interconnections with diverse aspects of life that are owned by human beings (White, 1988,p. 9). Learning a new language means learning " a new culture, a new way to think, feel and act" (Brown, 2000,p.12). In Iraq, English is regarded as a foreign language and taught formally from primary school to the university level.

Teaching English for students at preparatory schools has been arranged for many years, but it has not generated significant results. Both the teacher and the students agree that English is one of the most difficult subject to master when compared to other courses. Many teachers failed to teach English in the classroom due to a variety of

factors . The most important problem that students faced in learning English are , lack of vocabulary, bad grammar, poor pronunciation, lack of self confidence, and shyness to speak, being afraid of making mistakes so that they have nothing to say (Oshima and Hogue,199, p. 232).

So one of the models used in constructivist is the 5E model which is a linear process in teaching new concept or in making more understandable the known concept elaborately. Boddy, Watson and Aubusson (2003) state that the 5E Model is an aid or organizer for the teacher to structure and sequence potential learning experiences in a systematic and synergistic way consistent with a constructivist view of teaching and learning. In the 5E model study , it has been found out that success of the students increased, conceptual development has been provided and their attitudes have been changed positively (pp.27-42).

1.2 Aims of the Research

This research aims at investigating the effectiveness of using 5E model for teaching English language to EFL preparatory school students through:

1- Assessing the average level of the 5th year preparatory school students' achievement in English literary texts.

2-Finding out whether there is any significant difference between the experimental group's achievement and that of the control group in the posttest.

3- Finding out whether there is any significant difference between the students' achievement at the recognition level and that at the production level of the posttest.

4- Finding out whether there is any significant difference between students' achievement of the experimental group in the pretest and posttest.

1.3 Research Questions

The aim of this research was to answer the following research questions to show the effectiveness of 5E model in teaching English language to EFL students.

1. What is the average level of 5th year preparatory school students ' achievement in teaching English language?

2-Is there any significant differences between experimental groups' achievement and that of the control group in the posttest.

3-To what extent does the

effectiveness of 5E model in improving EFL preparatory school students in two levels (recognition and production) in the posttest of the experimental group.

4- What is the effectiveness of 5E model in students' achievement for the experimental group in pre and posttests?

1.4 Hypotheses the Research

The following hypotheses are put forward in order to be verified:

1-There is no significant difference between the average level of the students' achievement and the theoretical level of achievement in the posttest.

2. There is no significant difference between the mean scores of control group's achievement and that of the experimental group in the posttest.

3. There is no significant difference between the mean scores of the experimental group's achievement at the recognition level and that at the production level of the posttest.

4. There is no significant difference between the mean scores of the experimental group's achievement in the pretest and that in the posttest.

1.5 Limits of the Research

This research is limited to Iraqi fifth -year preparatory school students who are studying **English for Iraq** ,5th preparatory at **Al-Maysaloon Preparatory School for Girls/** in the city of Tikrit during the academic year(2021-2022).

1.6 The Model Adopted

This research used the contemporary models BSCS 5E (1980s) model (Engagement, exploration, explanation, elaboration and evaluation).

1.7Value of the Research

1-It helps EFL curricula designers and EFL methodologists develop teaching subjects,

2-It helps teachers by facilitating their role throughout the process of teaching English to the students.

3-It raises students' awareness of the importance of studying English language at the school level, and

4-Finally,it motivates students to employ the four skills (writing, reading, speaking and listening) in their daily lessons.

1.8Definitions of the Basic Terms

1.8.1 Effectiveness: It refers to

the degree to which objectives are achieved and the extent to which targeted problems are solved. Effectiveness means "doing the right thing" (Business Dictionary, 2019, p.1).

"It is the capacity to persuade or the power to produce a desired result" (Webster, 2005, p.42).

It means "Something produced on action or cause which produced usually more or less immediately" (Patric, 1971:46).

1.8.2 5E Model: Bybee (1997) defines the 5E instructional model as an approach that allows students redefine, reorganize, elaborate, and change their initial concepts through self-reflection and interaction with their peers and their environment (p.176).

This model is composed of 5 stages. These stages are Engage, Explore, Explain, Elaborate and Evaluate . Here is the 5Es as follows:

(1) Engagement: The teacher assesses the students' prior knowledge and helps them become engaged in a new concept through the use

of short activities. These activities promote curiosity and elicit prior knowledge. The activity should make connections between past and present learning experiences, expose prior conceptions and organize students' thinking toward the learning outcomes of current activities.

(2) Exploration: In this phase, students are facilitated with a common base of activities within which current concepts (i.e., misconceptions), processes and skills are identified and conceptual change. Students may complete lab activities. These activities help them to use prior knowledge to generate new ideas, explore questions and possibilities and design and conduct a preliminary investigation.

(3) Explanation: The explanation phase focuses students' attention on a particular aspect of their exploration experiences and provides opportunities to demonstrate their conceptual understanding. This phase also gives teachers the opportunity to directly introduce a concept, process or skill. Students explain their understanding of the concept. An explanation from the teacher may guide them toward a deeper understanding, which is a critical part of this phase.

(4) Elaboration: Teachers challenge and extend students' conceptual understanding and skills. Through new experiences, the students develop a deeper and broader

understanding, more information and adequate skills. Students apply their understanding of the concept to a real world situation.

(5) Evaluation: The evaluation phase encourages students to assess their understanding and abilities, and it provides opportunities for teachers to evaluate student progress toward achieving educational objectives. Also, the teacher should observe students' knowledge and skills along with their application of new concepts and a change in thinking .(Polgampala; Shen and Huang,2016,p.4).

1.9Plan of the Study

1-Identifying the specific steps of the 5E model.

2-Selecting a sample of EFL fifth year preparatory school students from Al-Maysaloon' Preparatory School and dividing them into two equal groups, experimental and control groups.

3-Equalizing the two selected groups in different variables such as, parents' academic attainment, students' age, and the students' previous year examination.

4-Teaching the experimental group the intended instructional material by using the 5E model while teaching the control group the same material by using the conventional method and constructing an achievement posttest.

5-Subjecting the two involved groups of students to the constructed test at the end of the instructional period.

6-Collecting the required data and treating it statistically.

7-Discussing the obtained results, and stating some conclusions, recommendations, and suggestions.

Section Two: Theoretical Background and Previous Studies

2.1. 5E Model

2.1.1Concept of 5E Model

According to Anil and Batdi (2015), the 5E 's instructional model is a five stages based model that is considered one of the most useful forms in designing teaching processes based on the constructivist theory of learning .The different stages of leaning included in the model are engage, explore, explain, elaborate and evaluate (p.212).

Here is the 5Es as follows:

- Engage: It is the stage in which the attentions of learners are attracted and meanings of various concepts are learned. In this stage students are asked questions by the teacher and a discussion environ

ment is created. An interesting story can be told or a video is watched and students' attentions are caught. If the students' attention is taken and questions need to be answered appear in their mind, this stage serves its purpose (Yalçın & Bayrakçeken, 2010) , cited in_Oteles 2020,pp.112-113).

- Explore It is the stage in which the questions unanswered in engage stage are clarified. In this stage, activities of students are intense. In explore stage, students explore new information by making a research, creating a discussion environment among them or by way of experiment. Teachers, however, help students reach the materials they need in this stage. Besides, teachers guide the students for new information based on the information they obtain. In this stage, a tour can be organized as a class. Moreover, group discussion and experiment are among the method and techniques to be used (Yalçın & Bayrakçeken, 2010 , cited in_Oteles 2020,pp.112-113).

- Explain: In explain stage, students based on the information they obtain create new concepts. Students explain the concepts with their own sentences. In this stage, video watching and direct instruction can be used (İlter & Ünal, 2014).

- Elaborate: The concepts formed by students, the classification made are applied to various conditions and events. This stage is based on experimental study, questioning, examination projects and problem solving. Students finding an application area in this stage can contribute to permanent learning. In this stage, method and techniques such as question and answer, discussion and analogy can be used (Lederman, 2009).

- Evaluate: It is the stage in which the concepts that students have learned and have not learned during the process, the application levels of the information they learn are determined and the students evaluate their learning condition. In this stage, open-ended questions can be directed to students, written examination or performance evaluation can be done. Evaluation process enables the students to realize their deficiencies and obtain information about learning process (Özmen, 2002)

2.1.2 History of 5E Model

The 5E model is one of the most practical recommended models in the application of constructivist learning theory (Ozmen,2004). It is built around a structured sequence and designed as

a tangible and practical way for teachers to implement the constructivist theory. In other words, the model is based on constructivism which confirms that learners build or construct new ideas on top of their old ones. The origin of the model refers to 1980s when Biological Science Curriculum Study (BSCS) Team, whose leader was Rodger Bybee designed a model based on constructivist thinking. They named the model the 5E's to represent all the stages and their numbers.

The 5E instructional model is predicted on inquiry based learning . In this model , instructors must work with their students , who will feel more motivated to learn when they feel supported by their instructors to generate thought-provoking questions and create hypotheses. The instructional model also prompts rational discussion as well as collaborative problem solving , which ultimately lead to understanding (Gillies, Nichols, Burgh, and Haynes, 2012).

The History and Development of Instructional Model as follows:

Historical Models

1- Herbart (Early 1999s)

(preparation, presentation ,generalization and application)

2-Dewey(Circa 1930s)

(Sensing perplexing situations, clarifying the problem, formulating a tentative hypotheses, testing the hypothesis, revising rigorous tests and acting on the solution)

3-Helss, Obourn and Hoffman (Circa 1950s)

(Exploring the unit, experience getting, organization of learning and application of learning).

Contemporary Models

1-Atkin and Karplus (1960s)

(Exploration, invention and discovery)

2-BSCS 5E (1980s)

(Engagement, exploration, explanation, elaboration and evaluation).

(Bybee ,Taylor, Westbrook, Gardener, Scotter, Powell and Landes, 2006,P.13).

2.1.3 The Role of the Teachers in Constructivism

1-They ask open-ended questions

2-They allow time for students to respond.

3-They allow responses to drive lessons.

4-They allow students to reflect.

- 5-They encourage open communication.
- 6-They focus on Students' thinking.
- 7-They appraise learning.
- 8-They facilitate discussions.
- 9-They set learning goals.
- 10-They allow students to represent their knowledge. (Yigit ,2011,pp.26-27).

According to Brooks and Brooks (2001), the teacher's role is that:.

- 1-He accepts students autonomy and initiative.
- 2-He inquires about students' understanding of concepts before sharing their own understandings of those concepts.
- 3-He encourages students to engage in dialogue, both with the teacher and with one another.
- 4-He encourages students inquiry by asking thoughtful, open-ended questions and encouraging students to ask questions of each other.

- 5-He seeks elaboration of students' initial responses.
- 6-He engages students in experiences that might engender contradictions to their initial hypotheses and then encourages discussion.

7-He allows wait time after posing questions.

8-He provides time for students to construct relationships .

According to Yager(1991,pp.53-57), the teacher's role is that:

1-He allows students direct the lesson, affect the teaching methods and change the content of the lesson.

2-He provides students lives that they can discuss with their existing knowledge .

3-He encourages students to ask questions and make thought-provoking discussions through open-ended and thought-provoking questions.

4-He encourages students to be autonomous.

5-He allows students express their opinions clearly.

6-He gives students time to think after the question is asked.

7-He encourages students to se alternative sources of knowledge.

8-He uses collaborative learning strategies.

2.1.4 The Role of the Students in Constructivism

1-They explore , invent, and discover new knowledge,

2-They constructs his/her own

learning ,

3-They work in groups,

4-They communicate knowledge,

5-They assesses his/her own work,

6-They reflect on their learning. (Yigit ,2011,p.26)

2.1.5 Advantages of 5E Model

There are many advantages of 5E model explained as follows ; it takes into account individual differences , introduce progress in knowledge and science as a way of research where the student follows the learning from micro to macro, motivate student to use his mental processes , and show attention to focus on the development of multi-thinking skills, based on thrill and excitement to attract attention , also depends on the expansionist thinking, makes learning meaningful and helps edit understanding error, and finally provides the student with many different ways of evaluation (Ahmed,2006).

Previous Studies

1-Yigit (2011)

The aim of this study is to find out the effect of writing instruction based on the 5E model on Achievement and motivation. The sample of this study consists of seventy students in three classes 23,23 and 24 in each class (fifty two female and eighteen male) in English language teaching and interpretation and translation department. In the Quasi-experimental research design the tools are test (pretest and posttest) and questionnaire (a motivation scale and writing strategies questionnaire were implemented).

The results were statistically analyzed , so the 5E model – based writing instruction has a positive effect on promoting writing skills of the students and fostering motivation in writing.

2-Polgampala ;Shen and Huang (2016)

The aim of this research was to investigate classroom management and discipline problems encountered by prospective teachers in classroom practices . The sample of the research consisted of 60 Math & science prospective teachers at the Siyane National College of Education in Veyangoda. The instruments that were used in this research were lectures on the 5E instructional model and provided opportunities to absorb the use of model, then they were to prepare activities in micro teaching , the second instrument was practicing activities in the classroom and the last one was semi-structured interviews.

The results revealed that they had negative opinions on 5E model in the classroom practices. The design and implementing exceeded the time planed. Discipline problems were listed as the major constraint for most of new teachers. These drawbacks should be addressed in order to utilize 5E method in the school systems successfully.

3-Oteles (2020)

This research aims to determine the effect of using 5E learning model in social studies on academic achievement of secondary school students and the opinions of students regarding this model. The sample of this research is fifty two (2 twenty one female and thirteen male) students studying in the 7th grade of secondary school

There are two tools in this research , achievement pretest and posttest and open-ended questionnaire . The researcher used Paralled mixed-method study design. The findings obtained at the end of the study indicate that 5E learning model affects the academic achievement of the students positively and the students have positive opinions regarding this model.

Section Three: Methodology

3.1 Experimental Design

Moreover, Cresswell (2012:294) defines the experimental design as a "traditional approach to conducting quantitative analysis or evaluate an idea (or procedure or practice) to determine whether it influences an outcome or dependent variable".

The experimental design adopted in the current study is entitled" The pre-posttest for two equivalent groups design", as shown in **table (3.1)**. It includes the following points:

- 1- Selecting two groups randomly and assigning them to the experimental and control groups.
- 2- Equalizing the both groups based on certain variables, such as student age, parents' level of education and scores in previous academic year.
- 3- The independent variable is the teaching model, 5E.
- 4- The same instructional materials are used for the two groups.
- 5-The experimental group is taught according to the 5E model, whereas the control group is taught according to the conventional method.
- 6-Post testing the two involved groups of students.
- 7-Using the suitable statistical



methods in order to analyze the collected data and collect the final results.

Table (3.1) The Experimental Design of the Study

Groups	Independent variable	Posttest
Experimental	5E Model	Posttest
Control	Communicative method	Posttest

3.2 Population and Sampling

Cresswell (ibid:142) states that population is a group of individuals who have the same characteristics. While a target population (or the sampling frame) is a group of individuals (or a group of organizations) with some common defining characteristics that the researcher can identify and study. A sample is a subgroup of the target population that the researcher aims to study for generalizing about the target population.

The target population of the present study includes 150, fifth-year students of Al-Maysaloon Preparatory School for Girls in the city of Tikrit, during the academic year 2021-2022. The students are grouped into two sections, (A, and B) whose total number is 150. Sections (A) has been randomly selected to be the experimental group and section (B) represents the control group. Section (A) consists of seventy-seven students while section (B) consists of seventy-three students. Twenty two students are excluded from section (A) and eighteen students from section (B). Those students are employed for the pilot study. Thus, each of the involved groups includes fifty-five students. Therefore, the total number of the involved sample is 110 who represent 73.17% of its original population, as shown in **table (3.2)**.

Table (3.2) The Population and Sample of the Study

Name of Schools	Group	Section	No. of students	No. of pilot study	No. of sample
Al-Maysaloon	Experimental	A	77	22	55
	Control	B	٧٣	18	55
	Total		150	40	110
	No. of students				

Name of Schools	Group	Section	No. of students	No. of pilot study	No. of sample
Al-Assel Secondary School					
Tikrit Private Secondary School					
Hwaa Secondary School					
Al-Mustansiria Secondary School					
Al-Najah Private Secondary School					
Total	154				

3.3 Equivalence of the Two Groups

The equalization between the two groups involves regulating the following variables that could create a difference in the achievement of the students such as, their age, their general level in English, and the educational level of their parents (Good et al, 1976,p.366).

3.4 Instructional Material

The material which has been taught to the two groups of students consists of the first three units of the Student's textbook, English for Iraq for fifth preparatory students, which consists of eight units and each unit includes ten lessons. Each fourth unit is a revision of the previous three units.

- unit one (lesson 8, topic: Babylon Festival; lesson 10, topic: New Year's party)
- unit two (lesson 4, topic: The Swimmer; lesson 8, topic: The Internet; lesson 10, topic: Mobile Phones),
- unit three (lesson 6, topic: The environment; lesson 9, topic: The Arabian Oryx; lesson 10, topic: Cars are bad for us!),

The experiment of this study has been done in the first semester of the academic year 2021 – 2022 during a period of eight weeks, i.e. from the 14th of November 2021 till the 14th of January 2022. The experimental group is taught by using the 5E model in teaching English language while the control group is taught by using the communicative method .

3.4.1 Lesson Plan for Teaching the Experimental Group**Date:** 14th November 2021**Class and section:** Fifth (A)**Period:** lesson period 40 minutes**Topic:** Lesson (10) Mobile Phones /unit Two /Student's Book.**Organization of Seats:** students' seats are reorganized into groups.**Aim:** to improve the four skills of language and to enhance the students' capacity to acquire and understand English language through 5EModel, to promote higher-order and critical thinking skills and to learn to describe, assess and address more difficult texts in reading.

Steps of presenting the lesson material:

1-Engaging: The teacher accesses the learners' prior knowledge and helps them become engaged in a new concept through the use of short activities that promote curiosity and elicit prior knowledge. The activity should make connections between past and present learning experiences, expose prior conceptions, and organize students' thinking toward the learning outcomes of current activities.

For example, the teacher writes sentences on the board then he asks the students some questions after that he tells them to write the answer in a sheet of paper.

2-Exploring: Exploration experiences provide students with a common base of activities within which current concepts (i.e., misconceptions), processes and skills are identified and conceptual change is facilitated. Learners may complete lab activities that help them use prior knowledge to generate new ideas, explore questions and possibilities, and design and conduct a preliminary investigation.

For example, the teacher asks students to raise the paper sheet to check their answers. Then the teacher announces the correct answer and asks them to write something related to their life. In pairs, the students exchange information and the teacher monitors students' discussion.

3-Explaining: The explanation phase focuses students' attention on a particular aspect of their engagement and explanation experiences and provides opportunities to demonstrate their conceptual understanding, process skills, or behaviors. This phase also provides opportunities for teachers to directly introduce a concept, process, or skill. Learners explain their understanding of the concept. An explanation from the teacher may guide

them toward a deeper understanding, which is a critical part of this phase.

For example ,the teacher asks the students about the topic , after students' thinking , the teachers provides them with a clear explanation.

4-Elaborating: Teachers challenge and extend students' conceptual understanding and skills, process. Through new experiences, the students develop deeper and broader understanding, more information, and adequate skills. Students apply their understanding of the concept by conducting additional activities.

For example, the teacher asks some questions and gives the students the chance to use their knowledge to answer the questions , then the teacher discusses students' answers and presents further elaboration.

5-Evaluating: The evaluation phase encourages students to assess their understanding and abilities and provides opportunities for teachers to evaluate student progress toward achieving the educational objectives.

For example, teacher evaluates students' understanding of the topic of the lesson and their ability to speak and write correctly and fluently. Finally, the teacher assesses students' discussion with concluding comments.

3.4.2 Lesson Plan for Teaching the Control Group

Date: 14th November 2021

Class and section: Fifth (B)

Period: Lesson period 40 minutes

Topic: Lesson (10) Mobile Phones /unit Two /Student's Book.

Organization of Seats: students' seats are kept as they are arranged in three rows.

Aim: to improve the four skills of language and to enhance the students' capacity to acquire and understand English language and to encourage students to read a range of different texts.

Steps of presenting the lesson material:

- 1-Explaining the meaning of the difficult and ambiguous words.
- 2-Asking some of the students to read a short text from the book to improve students' communication abilities and to help them answering any question.
- 3- discussing with the students what is the meaning of words in the short text and asking them to explain the intended meaning of unknown words.

4-Helping students to create and elaborate the new ideas and thoughts out of their prior knowledge and encouraging some students who may need to be redirected (students' critical thinking).

5- Students are given opportunities to make important decisions about their learning, which includes contributing to the design of learning experience and learning pathways.

6- Assign homework from the Activity Book

3.5 Construction of the Achievement Test

An achievement test has been constructed in terms of the contents and behavioural objectives of the instructional material. It consists of five questions with forty-six items and scored out of hundred, as shown in **table (3.3)**.

-Question one consists of five items, the mark of each item is four, the total mark is (20).

-Question two consists of two sections (A) and (B). Section (A) consists of four items related to the given essay, the specified mark of each item is (2.5), the total mark is (10). Section (B) requires to match the suitable functions related to the paragraphs, which consists of four items, each item is given (2.5) marks. The total mark is (10).

-Question three consists of five questions related to the given conversation, the specified mark of each item is three, the total mark is (15).

-Question four consists of two sections. Section (A) includes five items, which is some words are given to make sentences, the mark of each item is three, the total mark is (15). Section (B) consists of eight items, which requires to match A with B, each item is given two marks. The total marks (15).

-Question five requires the students to write a postcard to a friend. It includes one item, the total mark is (15).

The posttest has been simultaneously administrated to both groups (the experimental group and the control group) on the 16th of December, 2022. The assigned time for answering the test is fifty minutes. Later on, the test papers have been collected to be scored.

Table (3.3)

The Specifications of the Contents, Behavioural Objectives, Items, and Marks of the Posttest

Levels	No. of Questions	Content	Behavioural objectives	No. of Items	Marks
Recognition	1	Listen to a message	to answer the given questions	5	٢٠
Recognition	2-A	Essay in the wrong order	To rearrange the essay in the correct order	4	10
Recognition	2-B	Match the functions to the suitable paragraphs	to match the functions to the paragraphs	4	10
Production	3	Conversation	to answer the given questions related to the conversation	5	١٥
Production	4-A	Some words are given to make sentences	to rearrange the words to make complete sentence	5	١٥
Production	4-B	Conversation	to match between the sentences in list (A) with another sentences in list (B) to complete the conversation .	8	١٥
Production	٥	Write a postcard	Write a postcard to a friend	1	١٥
	Total			٣٢	100

3.6 The Scoring Scheme of the Posttest

A score is defined as "the numerical or mark received by individual on a test or part of a test based on the number of correct responses" (Saleemi, 1988:6).The subjective questions which are scored according to certain criteria, namely: grammar, vocabulary and idea , as shown in **table (3.4)**.

Note: The subjective questions are: Question (3),Question (4) (A) and(B) ,finally Question (5).* The instructors' names: -

Asst.Prof Manal Omer.M (PhD) and Asst.Prof Najwa Yassin (PhD)

Table (3.4) The Scoring Scheme of the Posttest

Criteria	Qualities	Scores			
		Q3 15	Q4A 15	Q4 B ١٥	Q5 ١٥
Grammar	Very good	5	5	٥	٥
	Good	3	3	٣	3
	Weak	0	0	٠	0
Vocabulary	Very good	5	5	٥	5
	Good	2	2	٢	2
	Weak	0	0	٠	0
Idea	Very good	5	5	٥	5
	Good	2	2	٢	2
	Weak	0	0	٠	0

3.7 Validity and Reliability of the Achievement Test

Validity refers to the truth of the test when it measures the components that the examiner intends to measure (Bynom, 2001,p.13). The purpose of validation in language testing is to ensure the defensibility and fairness of interpretations based on test performance. There are two important types of validity: face validity and content validity.

According to Johnson& Harris (1967) face validity is “the way the test looks to the examinees, test administrator, educators and the like”.(p.7). Content validity refers to "the systematic examination of the test content to determine whether it covers a representative sample of behavior domain to be measured". Anastasia and Urbina (1997,p.14)

In order to ensure the face validity of the achievement test, it has been given to a jury of specialists in the field of linguistics, methods of teaching English .All the notes and modifications stated by jurors have been considered

Reliability is one of an important characteristic of a good test. A test is reliable if its degree of accuracy stays stable and consistent in each time it conducted with the same conditions for the same sample of students (Verma and Beard ,1981,p. 86)

3.8 Pilot Administration of the Posttest

A pilot study refers to the preliminary study conducted with a sample out of the experiment sample to inform the researcher with any obstructions that may face during the test (Good,1973,p.143). As an initial step for conducting the final form of the experimental work, a pilot study is achieved in the current work in order to:

- 1- find out the clarity of the test instructions, to the testees,
- 2- estimate the time required to answer the test items, and
- 3- achieve item analysis of the test.

The constructed test has been conducted on the randomly selected thirty students. The pilot sample is requested to answer the items concerning the posttest. The obtained results show that there is no serious ambiguity in the instructions of the questions and the time required to answer them ranges between (45-50) minutes.

3.9 Final Administration of the Posttest

After verifying the pilot administration, the validity and reliability, the posttest is finally applied on the **16th of December 2021** to the two groups of students. The test papers have been distributed to the intended testees who are asked to read the instructions of the questions carefully and state their responses within the limited time of the test (50 minutes). At the end of that time, all the test papers have been collected to be scored according to the designed scoring scheme.

Section Four: Analysis of Data and Discussion of Results

4.1.1 Comparison Between the Average Level of the Students' Achievement and the Theoretical Level of Achievement in the Posttest

To verify the first hypothesis that states "There is no significant difference between the average level of the students' achievement and the theoretical level of achievement in the posttest",. T-test formula for two related sample is used. The computed t-value is (3.48) , at (0.05) level of significance and (109) degree of freedom, as shown in **table (4.1)**. Since the computed t-value is higher than the tabulated t- value, it means that there is a significant difference between the students' general level of achievement which is (50. 35) and the theoretical level of the achievement which is 50% and in favour of the former. This means that the achievement of 5th preparatory school students in English language is above the average level, thus the first hypothesis is rejected.

Table (4.1) The Mean Scores, Standard Deviations, and T-Values**The Students' Achievement in the Posttest**

No. of students	Mean	SD.	Theoretical mean score	T-Value		DF	Level of Significance
110	50.35	7.68	50%	calculated	Tabulated	109	0.05
				3.48	1.66		

4.1.2 Comparison Between the Mean Scores of the Experimental**Group's Achievement and that of the Control Group in the Posttest**

To verify the second hypothesis that states "There is no significant difference between the mean scores of control group and that of the experimental group in the posttest". By using the t-test formula for two-independent samples, the calculated t-value is found to be (8.06), while the tabulated t-value is found to be (1.98) at the degree of freedom (108) and level of significance (0.05), as shown in **table (4.2)**. This means that there is a significant difference between the mean scores of the experimental group and that of the control group, and for the benefit of the former. This means that the achievement of the experimental group which has been taught by 5E Model is better than the achievement of the control group which has been taught by the communicative method. Thus, the second hypothesis is also rejected.

Table (4.2) The Mean Scores, Standard Deviations, and T-Values of**The Two Groups' Achievement in the Posttest**

Group	No. of students	Mean	SD	T-Value		DF	Level of significance
EG	55	55.04	6.62	Calculated	Tabulated	108	0.05
CG	55	45.67	5.51	8.06	1.98		

4.1.3 Comparison Between the Mean Scores of the Experimental Group's Achievement at the Production and Recognition Levels of the posttest

To find out if "there is any significant difference between the mean scores of students' achievement at the recognition level and that at the production level of the posttest", t-test formula for the two paired samples is used. The calculated t-value is (0.82) which is bigger than the tabulated t-value which is (1.68) with (54) degree of freedom and (0.05) level of significance, as shown in **table (4.2)**. This means that there is a significant difference between the mean scores of students' achievement at the recognition and the production levels and in favour of the production level. Thus, the third hypothesis is also rejected .

Table (4.3) The Mean Scores and, Standard Deviations and T-Values of the Experimental Group's Achievement at the Recognition and Production Levels

Level	No. of students	Mean	SD	T-Value		DF	Level of significance
Recognition	55	27.22	3.28	Calculated	Tabulated	54	0.05
Production		27.82	5.11	0.82	1.68		

4.1.4 Comparison Between the Mean Scores of the Experimental Group's Achievement in the Pretest and that in the Posttest.

To find out if there is any significant difference between the mean scores of the experimental group's achievement in the pretest and that in the posttest, t-test formula for the two paired samples is used. The calculated t-value is (8.97) which is bigger than the tabulated t-value which is (1.68) with (54) degree of freedom and (0.05) level of significance, as shown in **table (4.4)**. This means that there is a significant difference between of the experimental group's achievement in the pretest and that in the posttest and in favour of the posttest. So, the forth hypothesis is also rejected.

Table (4.4) The Mean Scores and, Standard Deviations and T-Values of the Experimental Group's Achievement in the Pretest and Posttest

Group	No. of students	Mean	SD	T-Value		DF	Level of significance
Pretest	55	44.55	6.16	Calculated	Tabulated	54	0.05

Group	No. of students	Mean	SD	T-Value		DF	Level of significance
Posttest		55.04	6.63	8.97	1.68		

4.2 Discussion of the Obtained Results

The outcomes of the study show that the achievement of the experimental group who has been taught by using 5E model is better than that of the control group who has been taught by using the communicative method. This means that 5E model proves to be more effective and a helpful tool than the communicative method, in teaching English language. From the researcher's perspective, the improvement of students' achievement in English language by using 5E model could be attributed to the following factors: 1- 5E model is an important model that could be applied by teachers and used by students because it helps them to understand, comprehend and memorize new vocabularies better. 2- EFL preparatory school students find that 5E model is enjoyable and flexible which allows them to express their own opinions freely and to communicate with other students in different situations related to their real-life. 3- 5E model increases students' confidence in their learning ability and encourages them to familiarize themselves with their partners' cooperatively.

Section Five :Conclusions, Recommendations, and Suggestions

5.1 Conclusions

In the light of the obtained results and the theoretical material concerned with the use of contextual teaching-learning approach it is concluded that:

1- The use of 5E model in the class is useful to improve the social interaction among students. The students share information, participate in discussing and answering the questions freely

2- In 5E model environments, scientific concepts are presented to students with examples related to daily life, and it is aimed to increase students' interest, attitude, motivation and success towards the course and to improve their language.

3- 5E model motivates students to employ the four skills (listening, speaking, reading and writing) in their daily lessons and it is beneficial, appropriate, and effective in developing them.

5.2 Recommendations

The following recommendations are put forward in the context

of the obtained results and drawn conclusions:

1-Teachers are recommended to encourage and to adopt modern models, methods, activities and techniques to enhance students' participation and interaction inside their classroom .

2-Teachers , curriculum designers and EFL methodologists should design different lessons that can be presented by 5E model to raise students' motivation.

3-Teachers of English should be trained on using 5E model in teaching English language, to increase their students' achievement.

5.3 Suggestions for Further Studies

The following points are suggested, for further research:

1. The role of using 5E model on University Students' Achievement in English literature.

2. The role of using 5E model to improve primary as well as intermediate school students' achievement in various English skills.

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Appendix (A) The Achievement Pretest

Q1: Read to the following conversation and mark the sentences true, false or do not know.

Khalid: Would you like to come to supper with us tomorrow?

Martin: I'd love to, Khalid. But it is Ramadan, isn't it?

Khalid: So?

Martin: Well, you are fasting, aren't you?

Khalid: Yes, we are. But we break our fast in the evening.

Martin: Oh, yes, I Forgot about that. It's called iftar, isn't it?

Khalid: That's right. How did you know?

Martin: The receptionist at my hotel told me about it.

Khalid: Well, why don't you come to our house and try my mother's delicious soup and cakes? You aren't busy, are you?

Martin: Me, busy? Of course not. I'm on holiday.

Khalid: Well then, please come. My brother Hasan is going to be there. You haven't met him, Have you?

Martin: No, I haven't.

Khalid: His English is even better than mine.

Martin: I don't believe it.

Khalid: Really, it's true. He lived in London for a year.

Now put (T) or (F) or do not know.

1-Khalid wants Martin to com to supper. ()

2-Martin speaks good Arabic.()

3-Martin is staying with Khalid.()

4-Khalid's mother never cooks.()

5-Martin has met Hassan. ()

6-Khalid has been to England.()

(30M)

Q2: Complete the questions with the correct tags.

1-Mark hasn't gone home yet,-----?

2-There weren't many people at the park,-----?

3-It's been raining,-----?

4-I'm not making too much noise,-----?

5-Ahmed doesn't wear glasses,-----?

6-Halah has been ill for a week,-----?

7-They're coming to stay next month,-----?

8-It was terribly hot yesterday, -----?

9-I don't look like my mother,-----?

10-You've been swimming , -----?

Q3:Use the prompts to write

sentences in the present simple or the present continuous.

- 1-Please be quite. I (try) to do my Maths homework.
- 2-What time (he usually) get home from work?
- 3-We (not usually go out) in the middle of the day because it's too hot.
- 4-Huda can't see the board because she (not wear) her glasses today.
- 5-(children wear) a school uniform In Iraq?

Q4:Complete the sentences with words from the box.

Bad-tempered	bored	easy-going	expensive	jealous
generous	lazy	popular	sociable	worried

- 1-I'm-----, Let's go to the cinema.
- 2-Don't buy those pastries. Everything in that shop is too-----.
- 3-My sister is very-----, She never gets angry.
- 4-We were very-----when my grandfather was in hospital last month.
- 5-Calm down and stop shouting. There's no need to be -----
-----.
- 6-Adel always helps people and gives to charity. He is a very ----
-----.
- 7-Everybody wants to be Karim's friend. He is one of the most---
-----boys in my school.
- 8-My Aunt Farida invites her friends round all the time. She also loves meeting new people. She is very -----.
- 9-Faris doesn't like you. I think it's because you always get better marks than him. He is Probably-----.
- 10-It's eleven o'clock in the morning and you're still in bed. Get up and stop being so-----.

Q5:Complete the dialogue with the present perfect simple or the past simple.

- A:Can I borrow your English book?
 B:I'm sorry, but------(take) it to school yesterday and -
 ------(leave) it there. Where's yours? What-----
 (you/do)with it?
 A:I------(lose)mine. I------(look)everywhere
 for it but I------(not find) it yet.
 B:Perhaps it------(fall) out of your bag when you were
 walking



home from school this afternoon.

A: That's possible. I------(hear) a funny noise on my home, but i------(not look)round because i------(not think)it was anything important.

Appendix (B) The Achievement Posttest

Q1:Listen to the following message left on answer phones and answer the questions.

Recorded: Welcome to the Zmobile

Voice: Voicemail service. I'm sorry but the person you called is not available. Please leave your message after the tone.

Josie: Hi, Nadia. Josie speaking. Isn't it great the exams are over? Ifell so Much better now. Holidays at last. Anyway, that's not what I rang to say, obviously. Um, I just wanted to invite you to come on a picnic on Saturday the 18th of May. It'll be me, my sister, My cousin Jade and you, hopefully. Um, we're going to meet at the bus stop by the cinema at eleven. Hope you can come. Well, anyway, give me a ring this evening around seven.

1-Who calls?

2-Why?

3- Where to meet?

4-What time?

5-When should Nadia call back?

(20M)

Q2: A:The paragraphs in this essay are in the wrong order. Put them in the correct order by numbering them 1 to 4. (10M)

In the past we hunted animals in a natural way, but we now have something that is not very natural-guns. So wild animals cannot escape from us. Many animals have become extinct because of hunting , such as the dodo in Mauritius. It's too late to save them now. But we should learn the lesson: hunting can destroy whole populations of animals. If we do not protect disappear completely.

In the UK there is currently a lot of debate about fox hunting – for and against it. But the fox is not the only animal that is hunted-people shoot rabbits, deer and many different birds. Around the world , thousands of different animals are hunted, for food or for sport. Is this a normal part of life , or should we try to protect wild animals from the hunters?

So, there are two separate answers to the question. On the one hand, hunting is a perfectly good way of getting food- when there are lots of animals to hunt. We should not worry about rabbits and pigeons. On the other hand , we must do everything we can to protect endangered animals. We must stop hunters killing them , whether for sport or for food. Otherwise, we will lose these wonderful wild animals forever.

Of course, not all wild animals are endangered. In the UK, there are lots of pigeons, rabbits and deer. These animals are hunted for food . Perhaps this is a better way of getting our meat than farming. These wild animals have a much better life than the animals in farms. And shooting is not a very cruel way to kill an animal-at least it is quick.

B: Now match these functions to the paragraphs . Write them in the spaces provided. (10M)

-Introduction

-For hunting

-Against hunting

-Conclusion

Q3: Read the conversation and answer the questions: (15M)

Mrs Crosby : Hello, Anna Crosby here.

Who's speaking, please?

Ammar: Hello, Mrs Crosby. This is Ammar.

Mrs Crosby: Oh, hello, Ammar. How are you?

Ammar: I'm fine, thanks, Mrs Crosby. Is David there, please?

Mrs Crosby: I'm afraid he isn't , Ammar. He went out with Rob at about eight this morning.

Ammar: Did you say with Rob?

Mrs Crosby: Yes, I think they were going fishing. Rob's father was going to drive them to the lake.

Ammar: Oh no. They must have forgotten about the match.

Mrs Crosby: No, they knew about the match. I heard them saying they had a match at three.

Ammar: But it's three fifteen now. And they still aren't here.

Mrs Crosby: They might have had a problem with the traffic.

Ammar: But why hasn't Dave phoned? He's got a mobile. He always has it with him.

Mrs Crosby: He must have left it at home this time.

Ammar: They can't all have

forgotten to take their mobiles.

Mrs.Crosby: They must have . Typically. When those three go fishing , they forget about everything else.

Now answer the questions:

1-Why is Ammar ringing Mrs Crosby?

2-Where have Dave and Rob gone?

3-How late are they?

4-What is surprising about Dave's behavior?

5-In your opinion, why are Dave and Robe late?

Q4(A) Put the words in the right order to make sentences.

(15M)

1-(you –like –wait –me –to –would -?)

2-(we –to –come –house –shall –your -?)

3-(is –hotel –a –it –white –big - .)

4-(they –car –old –an –have –blue -.)

5-(dress –she –green –not –like –that –ugly –will - .)

Q4:(B)Match the sentences (A to H) below to the gaps in the conversation. (15M)

Milke: Is it a holiday? Everyone looks really happy. Sa'eed:----- Mike: Eid al Fitr? What's that? Sa'eed:----- Milke: So how exactly do you celebrate it? Sa'eed: Well, ten days before the end of Ramadan,----- Mike: But what do you do on the big day itself? Sa'eed: Well, -----and go to the mosque for prayers. Mike: Then What? Sa'eed:-----That's very important. Mike: Do children get presents? Sa'eed: Yes.----- Mike: What about food? Is there a special meal? Sa'eed: There certainly is.----- - Mike: And how do you greet each other on Eid al Fitr? Sa'eed:----- Mike: Eid Mubarak, Sa'eed.	A-First we put on our best clothes. B-In fact, everyone in the family gives each other presents. C-It's the festival just after Ramadan. D-People start decorating their houses and buying presents. E-The whole family has a really big meal. F-We give money to charity. G-We say 'Eid Mubarak". H-Yes, it's Eid al Fitr today.
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Q5: Imagine you are staying at Lake View Holiday Camp. Write a postcard to a friend saying what you have been doing and what your friends have been doing. Write about 70 words. Use some of the phrases below. (15 M)

Dear., Iam having a great time at Lake View Holiday Camp. I've been..... I've also been.... My friend has been Hop to hear from you soon,