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**Investigating the Visualizing and Integrating Strategies of EFL University Students in Studying A Short Story**

**A B S T R A C T**

Output cognitive strategies are essential for teaching literature in general as they are the outcomes of the process of teaching. When students have the ability to use their cognitive skills, they will be able to develop their learning of literature in general and short story in particular. The present study aims to identify and compare:

- 1- The use of output cognitive strategies by EFL university students in studying short story at the colleges of education in Tikrit, Kirkuk, and Al-Anbar universities.
- 2- The use of output cognitive strategies: visualization, integrating by EFL university students' in studying short story at three universities.
- 3- The difference among EFL university students' use of output cognitive strategies in studying short story according to the gender at three universities.

The sample includes 381 undergraduate EFL university students in the second year at the Departments of English, Colleges of Education: Tikrit, Kirkuk and Al-Anbar universities. The study is conducted during the first semester of the academic year 2021-2022. The data are gathered by using a diagnostic test; it identifies and assesses students' use of output cognitive strategies in studying short story. The findings of the current study reveal that students at departments of English, Colleges of Education in the universities of Tikrit, Kirkuk, and Al-Anbar use output cognitive strategies at a low level.

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دراسة استراتيجيات التصور والدمج لطلبة الجامعة دارسي اللغة الإنجليزية كلغة أجنبية في دراسة  
 القصة القصيرة

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## الخلاصة:

تقوم استراتيجيات المخرجات المعرفية بدور مهم في تدريس القصة القصيرة. عندما يكون لدى الطلاب القدرة على استخدام استراتيجيات المخرجات المعرفية ، فيكونون قادرين على تطوير مهاراتهم في تعلم القصة القصيرة. تهدف الدراسة الحالية إلى:

1. استخدام استراتيجيات المخرجات المعرفية من قبل طلاب جامعة اللغة الإنجليزية كلغة أجنبية في الدراسة القصيرة القصة في كليات التربية الثلاث جامعات تكريت وكركوك والأنبار.
2. استخدام أنواع استراتيجيات المخرجات المعرفية من قبل طلاب جامعة اللغة الإنجليزية كلغة أجنبية في الدراسة القصيرة القصة في ثلاث جامعات.
3. الاختلاف بين استخدام طلبة جامعة اللغة الإنجليزية كلغة أجنبية لاستراتيجيات الإخراج المعرفية في دراسة القصة القصيرة حسب الجنس في ثلاث جامعات

تكونت عينة هذه الدراسة من 381 طالبا وطالبة في السنة الدراسية الثانية -قسم اللغة الإنجليزية - كلية التربية للعلوم الإنسانية في جامعات تكريت وكركوك والأنبار. أجريت الدراسة في الفصل الأول من العام الدراسي 2021-2022. البيانات التي تم جمعها باستخدام اختبار تحصيلي لتقييم قدرات الطلاب في استخدام استراتيجيات الإخراج المعرفية في دراسة القصة القصيرة . تكشف نتائج الدراسة الحالية أن الطلاب في قسم اللغة الإنجليزية / كلية التربية في جامعات تكريت وكركوك والأنبار يستخدمون استراتيجيات المخرجات المعرفية ( التصور والدمج) بمستوى منخفض. يمكن أن يُعزى ذلك إلى حقيقة أن الطلاب غير قادرين على تنفيذ جميع أشكال استراتيجيات المخرجات المعرفية. في ضوء هذه النتائج تم تقديم بعض الاستنتاجات والتوصيات والمقترحات للدراسات المستقبلية.

**الكلمات المفتاحية:** التصور ، الدمج ، التعليم.

## Section One

### 1.1 Statement of the Problem

Literature is effective and significant university education as “literature, as an academic discipline, is not only a literary source to be read for its sake, but it is an authentic material that provides students with a medium for using and developing their different abilities and skills, by its nature as an imaginative world” (Salih, 2013: 1 cited in Alazzawi, 2015:82).

Moreover; teaching literature is essential for English foreign language (henceforth: EFL) students, i.e., the literary text supports the students to acquire new skills and strategies which they can use in different situations. Daskalovska and Dimova (2012: 1186) maintain this view and state that:

“Using literary texts in the language classroom can make the students more aware of the language they are learning, help them develop skills and strategies they can apply in many different situations and contexts, increase their interest and motivation, and make the learning of the language a more enjoyable and worthwhile experience”.

Developing higher thinking skills are an essential goal for teaching literature in the EFL classrooms. But “the learning method may not enable EFL learners to acquire high-order thinking skills in English and thus contribute negatively to their intrinsic and extrinsic motivation to learning English literature (Alhamdi, 2014; Al-Hazmi, 2003). In fact, learners normally read and translate the words, but find it difficult to interpret and understand the ideas since literature is unfamiliar to them. Therefore, EFL learners whose study of English is exam-driven rely mostly on memorizing strategies taking them far away from the analytical, synthetic, critical, and evaluative levels required for literature study (Sayed, 2003:337-341).

Short story is one of the literary genres that are used in the English departments. Alazzawi (2000: 25) explains that short story is effective as “being shorter than the other narrative forms, short story offer a model for language students to examine language itself and to see how it works in the literary text”.

The strategies that the students follow in answering literary questions are cognitive strategies they have acquired through the interaction with the text. Through teaching the literary text, teachers confer with students “the strategy (skill) they are learning it, why they were learning it, why it was important, and how and when they could use it as they read”( Dole, Jeffery and, Dina ,2009: 18)

In other words, the cognitive strategies are the new knowledge or skill that they have got during the course, as they are the results for the process of teaching. Output cognitive strategies are how the learner manages or orders certain set of skills to accomplish a task effectively and efficiently. The outcome cognitive skills are significant in EFL university education in general and literature in particular. Students with weak level of the students they cannot use the appropriate strategy to answer the questions, for example when ask them to interpreting specific paragraph of the story they write summary about the whole chapter from the story In addition to that students make mix between the use of interpreting and integrating of the event of the stories, and also the students do not have the ability to give reasoning about the action that are happen in these short stories.

The researcher consults professors of literature by submitting a questionnaire to validate the desired strategies that the EFL students supposed to master after their studying the literary text. They state their acceptance of the suggested strategies in studying literature in general as output cognitive strategies and they agree add that these strategies are considered the higher level of thinking.

This study attempts to investigate the EFL university students' output cognitive strategies in the light of main strategies: visualizing and integrating.

## **1.2 Aim of the Study**

This study aims to identify and compare:

1. The use of OCS by EFL university students in studying short story at the colleges of education in Tikrit, Kirkuk, and Al-Anbar universities.
2. The use of OCS types: visualizing, integrating, interpreting, reasoning, summarizing, and analyzing by EFL university students' in studying short story at the three universities.
3. The differences among EFL university students' use of OCS in studying short story according to gender at the three universities.

## **1.3 Hypotheses of the Study**

It is hypothesized that

1. There are statistically significant differences among EFL university students' use of output cognitive strategies types: Summarizing and analyzing ; in studying short story at three universities.
2. There are statistically significant differences among EFL university students' use of output cognitive strategies in studying short story according to the gender at three universities.

## **1.4 Limits of the Study**

The present study is limited to second year students at the departments of English Colleges of Education in Tikrit, Kirkuk and Anbar Universities during the academic year 2021-2022. It is limited to the short stories 'The Happy Prince' and 'The Open Window'.

## **1.5 Definitions of the Basic Terms**

### **1.5.1 Output cognitive strategies**

An output cognitive strategy means that learners acquire new knowledge or skill by applying what they have learned and making meaning of their experiences. (Galindo, 2020: 2).

Galindo (2020) definition of output cognitive strategy will be the operational definition of the current study.

### **1.5.2 Short story**

Abrams and Harpham (2012:365) state that, "A short story is a brief work of prose fiction, and most of the terms for analyzing the component elements, the

types, and the narrative techniques of the novel are applicable to the short story as well.

Short story is “brief fictional prose narrative that is shorter than a novel and that usually deals with only a few characters” (Hansen, 2020:1).

The operational definition: It is a short piece of fiction that students are interested in listening to.

The operational definition of Short Story: A story, usually about imaginary characters and events, that is short enough to be read from beginning to end without stopping (Mitchell, 2019: 24).

## **Section Two**

### **Theoretical Background and Previous Studies**

#### **2.1 Theoretical Background**

##### **2.1.1 Cognitive Strategies**

Strategy is a word with many meanings and all of them are relevant and useful to those who are charged with setting strategy for their corporations, businesses, or organizations (Alfred, 1962:53) . Alexander, Graham, and Harris (1998:32) describe strategies as procedural in the sense that individuals must know specific procedures, whether these are algorithms or heuristics, in implementing a strategy. Strategies are purposeful in that readers have to make a choice in the use of a particular strategy. They are effortful in that strategy use is time- consuming and requires a certain amount of cognitive resources. Strategies are willful in that readers must have the motivation to actually use the strategy; knowing how to use it is not enough.

Moreover; a strategy is “a routine or procedure for accomplishing a goal; a cognitive strategy is a mental routine or procedure for accomplishing a cognitive goal” (Dole, Jeffery, Dina,. 2009: 4). Strategies are cognitive procedures that aid in performance of specific cognitive tasks (Ibid. : 6)

Gagne (1977:167) explains that cognitive strategy is an internal process known as the learning process of control. Furthermore, Gagne explains that as an internal process, cognitive strategy serves as a way to modify and regulate the learning process. In his explanation, Gagne argues that strategy gives or becomes the basic structure for learning. With this strategy, students try to overcome difficulties or problems faced. The cognitive strategy of the learner always evolves in line with their success in learning. These developments are the development of ways to improve the regularity of the internal processes associated with learning.

##### **2.1.2 Output Cognitive Strategies**

An output cognitive strategy helps ensure that learners acquire new knowledge or skills by applying what they have learned and making meaning of

their experiences (Galindo, 2020: 2). When learners make use of what they learn, and deal with the information or the knowledge that they obtain is considered as the cognitive outcomes of their studying or learning a subject.

### **1. Visualization strategy**

Stephanie Harvey and Anne Goudvis (2000:77) say that“visualization is being read by drawing and speculate what may happen in our mind, to help students develop their ability.” In visualization strategy, students have to make sense with the text by drawing in their mind. It can make the students focus on the text that they read, and also it can develop students’ motivation and interest to read the text by speculating what may be happening with the characters in the text. Then, the students share they visualize with their friends, it will increase students' vocabulary mastery. In summary, the teacher can determine whether the students truly understand the text or not.

### **2. Integrating Strategy**

is an approach where the learner brings together prior knowledge and experiences to support new knowledge and experiences. By doing this, learners draw on their skills and apply them to new experiences at a more complex level. The concept behind integrative learning is that students take ownership of their own learning, becoming critical inquiries who are able to make meaningful connections between different disciplines and utilize critical thinking to real-life problems (Mansilla, 2008:94).

#### **2.1.3 Benefits of Cognitive Learning**

Herrity, (2019) state the following benefits of Cognitive learning:

##### **1. Enhances learning**

Cognitive learning theory enhances lifelong learning. Workers can build upon previous ideas and apply new concepts to already existing knowledge.

##### **2. Boosts confidence**

Employees become more confident in approaching tasks as they get a deeper understanding of new topics and learn new skills.

##### **3. Enhances Comprehension**

Cognitive learning improves learners’ comprehension of acquiring new information. They can develop a deeper understanding of new learning materials.

##### **4. Improves problem-solving skills**

Cognitive learning equips employees with the skills they need to learn effectively. They are thereby able to develop problem-solving skills they can apply under challenging tasks.

##### **5. Help learn new things faster**

Through the experience of learning, the employee will be able to recycle and use the same learning methods that worked previously. This will help them learn new things a lot faster as they already know what works for them when it comes to obtaining new knowledge.

## **6. Teaches to form concept formation (think abstract)**

Cognitive learning can also teach your employees to form a range of different concepts such as easily perceiving and interpreting information that could boost creativity and lead to innovations at the workplace.

### **2.1.4 Visualizing and integrating Strategies in Studying Short Story**

Teaching literature helps learners acquire certain abilities in the target language. (Brumfit & Carter: 2000: 13). As a result there will be a question at one mind what are the new abilities that the EFL university students get through their studying of the literary text? Wide and new information with various skills should be improved through teaching literature in general. As they pass through the journey of reading the literary text, the EFL university students will visualize the event and the characters....etc., they will integrate the different experiences with their own. Moreover; they may analyze the detailed actions to interpret the reason behind its happening, as well as they summarize the events of the story.

An addition Teaching language is, and always has been, thought of as developing a set of performance skills in the learner (Corder 1972:28)

It's important to shed light to this relationship between what the EFL students practice in their studying literature and what they acquire after studying. so the first strategy is visualization strategy Visualization helps students create mental images while they study. Students need to use all five senses as well as their emotions to construct images that allow interpretations to be made based on the student's background knowledge.

Additionally, the visualization strategy allows students to imagine what is happening in the text. Will(2018) confirms this and explains that the visualization strategy allows readers to create mental images in the form of a movie or a photo while they read

As students gain more deliberate practice with this skill, the act of visualizing text becomes automatic. Visualizations allowed learners to become more engaged while they were studying short story because they used their imagination to make drawings about the story.

The Association of American Colleges & Universities (2007) describe integrative learning as being the key change in university education for the 21st century.

At Edith Cowan University, we use integrative learning techniques, such as Peet's 'Hidden Moments' activity to help students recognize their own learning, drawing their knowledge from their previous experiences and give students opportunities to make connections between these experiences and the knowledge, skills and experiences that they have during their course. A practical outcome of using integrative learning methodology throughout a course is to help improve employability outcomes for students. This workbook can be adapted for any School or discipline, according to its needs. Contact your School Senior Learning Designer for more information.

## **Section Three Methodology**

### **3.1 Design of the Study**

This research adopts a quasi-experimental design which is a qualitative and quantitative study. The qualitative technique, which has been explained by a few researchers such as Bogden and Biklen (1998:55), allow researchers to focus on actions, experience and perceptions. This implies that the majority of information is provided in the form of questionnaire and a diagnostic test.

The current study is conducted out in steps, starting with data collecting and ending with data analysis. Likewise the researcher employs library references to get useful data for this investigation. As a consequence, the researcher's aim is to analyze how problems occur in studying literature in general and short story in particular dealing with output cognitive strategies for students to enhance their abilities in using these strategies.

### **3.2 Population and Sample**

Population can be defined as all individuals or interesting units, so it is difficult to have available data for all individuals in population (Hanlon and Larget, 2011:2).

Population refers to all the subjects that you want to study and it comprises all persons, objects or events (Ary, Jacobs, and Sorensen C. 2006: 125). The population of the current study is 770 undergraduate EFL university students from Departments of English, at Colleges of Education Tikrit, Kirkuk, and Al-Anbar universities during the academic year 2021-2022.

Best and Kahn, (1981:8) explains the sample as a small proportion of pupils chosen for analysis and observation. The sample refers to any group of individuals that are selected to symbolize a population (Richards, 1992:29).

Greswell (2012:145) assumes that a sample is —a subgroup of the target population that the researcher plans to study for generalizing about the population. In an ideal situation, a sample of individuals is selected to be representative of the entire population

As for the current study, the sample is randomly selected in order to be truly convenient of the population characteristics without any bias and in order to obtain valid and reliable results.

The total number of the sample is (381) chosen randomly. Intentional choice is represented through choosing college and random choice is achieved through selecting a representative number of students from Colleges of Education/ Tikrit Kirkuk , and Al- Anbar universities, as shown in the following Table( 1):

**Table 1 Population and Sample of the Study**

Universit y	College	No.of Population	No.of Pilot Study	No.of The Sample	Percentage
Tikrit	The College of Education for Humanities	290	10	150	51%
Kirkuk	The College of Education for Humanities	250	10	121	48%
Al-Anbar	The College of Education for Humanities	220	10	110	50%
<b>Total</b>		<b>760</b>	<b>30</b>	<b>381</b>	

### 3.3. Test construction

A test is defined as any procedure for measuring ability, knowledge, or performance (Richards & Schmidt, 2013: 591). And Aljuboory (2014:7) defines a test is a tool that is best used for gathering information about students' performance and achievement in a given course of study. It is method or procedure for measuring a person's ability, knowledge, or performance in a particular aspect of life.

Furthermore; the construction of the test involves planning for the test, preparing the items and instructions, putting them together and reproducing the test (Brown, 2004: 47). The research instrument in the current study is a diagnostic test.

In order to achieve the aims of the present study, a diagnostic test has been constructed. The test has major one task, namely, production task. In the construction of the test objectives are taken into consideration.

To find out students' output cognitive strategies in studying short story, the content of the test has been taken from the two English short stories '**The Happy prince**' and '**The Open Window**'. The test includes four questions with eight branches, two branches for each question. Table (2) illustrates the objectives of the test.

**Table 2**  
**The Test Objectives**

No.of Question		Objectives
1.	A.	Visualizing strategy
	B.	Integrating strategy
2..	A.	Visualizing strategy
	B.	Integrating strategy

The test is designed to investigate output cognitive strategies (visualizing and integrating) of Iraqi EFL students on production level.

The first question includes two branches A and B: The first one (A) measures the students' visualization strategy. The second part is to check the students' use of the integrating strategy

The second question includes two branches A and B: The first one (A) measures the students' visualization strategy. The second part is to check the students' use of the integrating strategy

### 3.3.1 Validity of the test

Validity is the most important consideration in the development and evaluation of measurement instruments. Historically, validity has been defined as the extent to which the instrument measured what it claimed to measure (Ary et al., 2006:225).

Moreover; validity means test what you teach, how you teach it. It means that it measures what it is supposed to measure. It tests what it ought to test. A good test which measures control of grammar should have no difficult lexical items. Validity explains us whether the test fulfils the objective of its development Alderson, J.C. and Hughes, A (1981:135).

### 3.3.2 Content validity

Content validity is a much more important type of validity. Urbina (1997: 14) states that 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". A test needs to have a representative sample of the teaching/ instructional contents as defined and covered in the curriculum.

### **3.3.3 Face validity**

Face validity is "the way the test looks to the examinees, test administrator, educators and the like" (Harris, 1969:7). According to Mousavi (2009: 247), face validity is the degree to which a test looks right, and appears to measure the knowledge or abilities it claims to measure, based on the subjective judgement of the testees who take it, the administrative staff who decide on its use, and other psychometrically simple observers.

To insure the face validity of the test, it has been submitted to a jury of instructors and specialists in the English language teaching, literature and Linguistics. The jurors have reviewed the instrument and stated that it is appropriate and valid, their modification has been taken into consideration (See appendix: B).

### **3.4 Reliability of the Test**

Reliability is an important character of a good test. A test is said to be reliable if its degree of accuracy stays stable and consistent each time is conducted with the same condition for the same sample of students (Veram and Beard, 1981:860). One of the necessary characteristics of a good test is reliability. Alderson (1995:294) states that "reliability is the extent to which test scores are consistent". Reliability is explained by Ravitch (2007:70) "in testing, a measure of consistency. For example, if a person took different forms of the same test on two different days, scores on both tests should be similar. Alpha- Cronbach formula is used to measure the reliability of the test. The coefficient is found to be 0.89 which is considered acceptable.

### **3.5 Practicality of the Test**

Practicality is the relationship between the resources that will be required in design, development, and use of the test and the resources that will be available for these activities" (Bachman and Palmer, 1996: 36). They illustrate that this quality is unlike the others because it focuses on how the test is conducted. Moreover, Bachman and Palmer (1996) classified the addressed resources into three types: human resources, material resources, and time.

Based on this definition, practicality can be measured by the availability of the resources required to develop and conduct the test. Therefore, our judgment of the language test is whether it is practical or impractical.

### **3.7 Item analysis**

Bachman and Palmer(1996:92) mentions that item analysis is a process that comprises different statistical means directed to investigate the quality of test items that have been given to students. The purpose behind this process is to discover the difficulty level and discrimination power of the items in the test. Item analysis is a

number of procedures adopted to analyze test items properties regarding difficulty level and discrimination power. The quality of the test is estimated through investigating its internal consistency in terms of the students' responses according to a statistical formula mentioned later.

### 3.8 Difficulty Level DL

The difficulty level is specified as the ratio of the students who replied correctly to each item (Rosas, 2000:3). Item difficulty refers to the extent to which an item appears to be complicated or facilitated for a given number of tests. It just reflects the percentage of learners who respond correctly to the object. The most suitable test item will have item difficulty varying between 0.15 and 0.85 (Brown, 2010: 70-1). The items of this test are considered acceptable if they range from 0.35 to 0.66 which indicates the suitability of items.

### 3.9 Discrimination Power

Discrimination power means "calculating the degree to which a particular item's results correspond with the results of the entire test" (Alderson, 1995:80). This means that an object is deemed to have weak power of discrimination if it is correctly scored by high-skilled students as well as low-skilled students. Item discrimination refers to the degree to which an object makes a difference between good and poor testers. An object has good power of discrimination if it collects the right answers from the good students and the wrong answers from the bad students. It is worth noting that the high power of discrimination will be close to 1.0, and no power of discrimination will be nil at all (Brown, 2010: 71).

The test item discrimination power is found to have a range of 0.32 -0.66. The test items for discrimination power and difficulty level are shown in the following table:

**Table 3 Difficulty level and Discrimination power**

Question	Item	Higher	Lower	Difficulty	Discrimination
Q1/ A	1	70	30	0.42	0.38
	2	147	66	0.55	0.54
Q1/ B	1	142	71	0.50	0.47
Q2/ A	1	147	67	0.35	0.53
Q2/ B	1	141	55	0.55	0.57
Q3/ A	1	137	61	0.60	0.51
Q3/ B	1	220	66	0.66	0.64
Q4/ A	1	148	49	0.50	0.66

Q4/ B	1	146	50	0.50	0.64
	2	102	68	0.55	0.32

### 3.10 Instructional material

The instructional material of the current study is provided by short stories that are selected from ‘a book of Short Stories: Selected, Introduced and Furnished Glossary, biographical and Critical Notes’ by Fakhir Abdul-Razzak and Aziz Al-Mutalibi. This test is chosen for the second stage EFL university students. This text contains an introduction to short story as an independent literary genre and followed by selected stories for famous authors like Oscar Wiled's "The Happy Prince, and Saki's "The Open Window".

### 3.11 Final Administration of the Test

The test has been finally administered after calculating its validity, reliability and pilot administration. The test has been conducted on 31th March during the second semester of the academic year (2021-2022). Each one of the students has attended in the classroom and the students are asked to answer the questions. The time needed to answer the questions is about 90 minutes.

## Section Four: Data Analysis and Discussion of Results

### 4.1 Data Analysis

This section presents the results of that obtained from analyzing the test hypotheses.

#### 4.1.1 Results of the First Hypotheses

In order to achieve the first aim of the this study which is finding out the use of output cognitive strategies by EFL university students in studying a short story at the three colleges of education: Tikrit, Kirkuk ,and Al-Anbar universities by verifying the first hypothesis that states "*that there are statistically significant differences among EFL university students' use of output cognitive strategies in studying short story at the three colleges of education Tikrit, Kirkuk, and Al-Anbar universities*", the one-way analysis of variance is used by the researcher, as shown in the following table:

**Table 4 One-Way Analysis of Variance (ANOVA) Among the Three Universities**

	Sum of Squares	DF	Mean Square	F-value		Sig.
				Calculated	Tabulated	
Between Groups	8003.443	2	4001.721	11.217	3.02	0.05
Within Groups	134847.628	378	356.740			
Total	142851.071	380				

Table 4 shows that the computed F-value 11.217 is higher than the tabulated F-value 3.02 at the 0.05 level of significance and DF = 2, 378. This indicates that there are significant differences among EFL university students in their use of output cognitive strategies in studying short story.

**Table 5 Comparisons Of Means Among Universities (Scheffe<sup>a</sup>)**

groups	N	Subset for alpha = 0.05	
		1	2
Kirkuk	121	28.2066	
Tikrit	150		36.4733
Al-Anbar	110		39.4000
Sig.		1.000	.473
Means for groups in homogeneous subsets are displayed.			
a. Uses Harmonic Mean Sample Size = 124.885.			
b. The group sizes are unequal.			

According to the table 5 above, the comparisons of means showed that the mean scores of the Kirkuk in the test 28.2066, Tikrit university 36.4733, and Al-Anbar university 39.4000, with harmonic mean sample size = 124.885. This means indicates that there is a significant difference among EFL university students' at the three colleges of education and in favour for Tikrit, and Al-Anbar universities. The hypothesis, which states "*that there are statistically significant differences among EFL university students' use of output cognitive strategies in studying short story at the three colleges of education Tikrit, Kirkuk, and Al-Anbar universities*", is accepted.

#### **4.1.2 Results Related to the Second Hypothesis**

The Second Hypothesis of the current study is to identify and comparing the students' use of output cognitive strategies in studying a short story at three universities Kirkuk ,Tikrit, and Anbar

**a. Visualization**

**b. Integrating**

Another comparison is made among the three universities with the two types of output cognitive strategies which is related to the second hypothesis as a whole. The First type (Visualization): A one-way ANOVA is also employed to determine whether or not there are statistically significant variations in "visualisation" across the three colleges. One-way analysis of variance is used to determine the level of the sample (See table 6).

**Table 6 One-Way Analysis of Variance (ANOVA) Among the Three Universities**

	Sum of Squares	DF	Mean Square	F-value		Sig.
				Calculated	Tabulated	
Between Groups	155.455	2	77.727	4.725	3.02	0.05
Within Groups	6218.299	378	16.451			
Total	6373.753	380				

Table 4 demonstrates that the computed F-value 4,725 is greater than the tabulated F-value 3.02 at the 0.05 level of significance and DF = 2,378. This suggests that university students' visualization strategy in studying short stories differ significantly.

**Table 7 Comparisons Of Means Among Universities (Scheffe<sup>a</sup>)**

groups	N	Subset for alpha = 0.05	
		1	2
Kirkuk	121	6.9669	
Tikrit	150	7.7200	7.7200
Al-Anbar	110		8.6091
Sig.		.342	.224
Means for groups in homogeneous subsets are displayed.			
a. Uses Harmonic Mean Sample Size = 124.885.			
b. The group sizes are unequal.			

According to the table 7 above, the comparisons of means show that the mean scores of the Kirkuk in the test 6.9669, Tikrit university 7.7200, and Al-Anbar university 8.6091, with harmonic mean sample size = 124.885. This means that there are statistically significant differences among the students in the first type of output cognitive strategies at the three universities and in favour for Tikrit, and Al-Anbar universities. The hypothesis, which states "that there are statistically significant differences among EFL university students' use of output cognitive

strategies types in studying short story at three universities (Visualization)", is accepted.

**The Second type (Integrating):** To determine the sample's level of understanding of integrating, one-way ANOVA is applied to find if there are any statistically significant differences in the use of integrating strategy in studying short story among those three colleges, as shown in the table (8):

**Table 8 One-Way Analysis of Variance (ANOVA) Among the Three Universities**

	Sum of Squares	DF	Mean Square	F-value		Sig.
				computed	Tabulated	
Between Groups	220.566	2	110.283	6.372	3.02	0.05
Within Groups	6542.699	378	17.309			
Total	6763.265	380				

Table 4 demonstrates that the computed F-value 6,372 is greater than the tabulated F-value 3.02 at a significance level of 0.05 and DF = 2,378. This suggests that EFL university students' integrating strategy for studying short stories differ significantly.

**Table 9 Comparisons Of Means Among Universities (Scheffe<sup>a,b</sup>)**

Groups	N	Subset for alpha = 0.05	
		1	2
Kirkuk	121	4.1240	
Anbar	110		5.7273
Tikrit	150		5.7800
Sig.		1.000	.995
Means for groups in homogeneous subsets are displayed.			
a. Uses Harmonic Mean Sample Size = 124.885.			
b. The group sizes are unequal.			

According to table 9 above, the comparisons of means showed that the mean scores of the Kirkuk in the test 4.1240, Al-Anbar university 5.7273, and Tikrit university 5.7800, with harmonic mean sample size = 124.885. This means that there are statistically significant differences among the students in the second type (integrating) at the three universities and in favour for Tikrit, and Al-Anbar universities. The hypothesis, which states "*that there are statistically significant differences among EFL university students' use of output cognitive strategies types in studying short story at three universities (integrating)*", is accepted.

## 4.2.2 Results Related to the Third Hypothesis

In order to verify the third hypothesis of the current study which is finding out and comparing Iraqi EFL university students' use of output cognitive strategies in studying short story according to the gender (female and male) at three universities, by investigating the hypothesis which reads as follows

*" there are statistically significant differences among EFL university students' use of output cognitive strategies in studying a short story according to the gender at the three universities".*

### 4.2.2.1 Comparison of the Males and Females Students' use of output cognitive strategies at the three universities

The comparisons between the three universities will depend on the answers of the students. Generally, a T-test formula for two independent samples is applied to achieve the third hypothesis. To detect the differences between males and females at the three universities, as shown in the following table (10):

**Table 10 T-test for Two Independent Samples for gender (female and male) at the three universities**

Groups	No. of students	Mean	SD.	T-Value		DF	Level of Significance
Female	218	35.58	18.73	Computed	Tabulated	379	0.05
Male	163	33.49	20.22	1.041	1.968		

Based on the results, the comparison between the males' and females' use of output cognitive strategies in studying short stories, it is clear that the females' mean scores at the three universities is 35.58 with a 18.73 standard deviation, while the males' mean scores is 33.49, with a standard deviation of 20.22, the computed t-value 1.041, which is less than the tabulated t-value 1.968 at 0.05 level of significance. This shows that there is no statistically significant difference between males and females' use of output cognitive strategies in studying short stories.

### 4.2.2.2 Comparison of the Males and Females Students' use of output cognitive strategies at the three universities

The comparison between females students' use of output cognitive strategies is made. A one-way ANOVA is used to determine whether there are statistically

significant differences between females use of output cognitive strategies among the three universities, as shown in the table below (11):

**Table 11 One-Way Analysis of Variance (ANOVA) of Females at the three universities**

	Sum of Squares	DF	Mean Square	F-value		Sig.
				Calculated	Tabulated	
Between Groups	7742.283	2	3871.141	12.163	1.972	0.05
Within Groups	68428.561	215	318.272			
Total	76170.844	217				

The table 4 shows that the computed F-value (12.163) is higher than the tabulated F-value 1.972 at the 0.05 level of significance and DF = 2, 215. This indicates that there are significant differences between females use of output cognitive strategies among the three universities, as shown in the table below(12):

**Table 12 Comparisons Of Means Among Females at the Three Universities (Scheffe<sup>a,b</sup>)**

Groups	N	Subset for alpha = 0.05	
		1	2
Anbar	89	29.8764	
Tikrit	85	36.1529	
Kirkuk	44		46.0455
Sig.		.134	1.000
Means for groups in homogeneous subsets are displayed.			
a. Uses Harmonic Mean Sample Size = 65.605.			
b. The group sizes are unequal. The harmonic mean of the group sizes is used.			

According to the table 7 above, the comparisons of means showed that the mean scores of the Al-Anbar university females 29.8764, Tikrit university females 36.1529, and Kirkuk university females 46.0455, with harmonic mean sample size = 65.605. This indicates that there are significant differences between females' use of output cognitive strategies among the three universities and in favour of Kirkuk university.

#### 4.1.3.2 Comparison of the Students' use of output cognitive strategies between Males at the three universities

The comparison between males students' use of output cognitive strategies is made. A one-way ANOVA is used to determine whether there are statistically significant differences between males' use of output cognitive strategies among the three universities, as shown in the table below (13):

**Table 13 One-Way Analysis of Variance (ANOVA) of Males at the three universities**

	Sum of Squares	DF	Mean Square	F-value		Sig.
				Calculated	Tabulated	
Between Groups	4050.688	2	2025.344	5.208	1.972	0.05
Within Groups	62222.061	160	388.888			
Total	66272.748	162				

Table 4 shows that the computed F-value 5.208 is higher than the tabulated F-value 1.972 at the 0.05 level of significance and  $DF = 2, 160$ . This indicates that there are significant differences between males' use of output cognitive strategies among the three universities, as shown in the table below (14):

**Table 14 Comparisons Of Means Among males at the three Universities (Scheffe<sup>a,b</sup>)**

Groups	N	Subset for alpha = 0.05	
		1	2
Anbar	32	23.5625	
Kirkuk	66		34.9697
Tikrit	65		36.8923
Sig.		1.000	.891
Means for groups in homogeneous subsets are displayed.			
a. Uses Harmonic Mean Sample Size = 48.555.			
b. The group sizes are unequal. The harmonic mean of the group sizes is used.			

According to the table 29 above, the comparisons of means show that the mean scores of the Al-Anbar university males 23.5625, Kirkuk university males 34.9697, and Tikrit university females 36.8923, with harmonic mean sample size = 65.605. This indicates that there are significant differences between males' use of output cognitive strategies among the three universities and in favour of Kirkuk and Tikrit universities.

## 4.2 Discussion of the Results

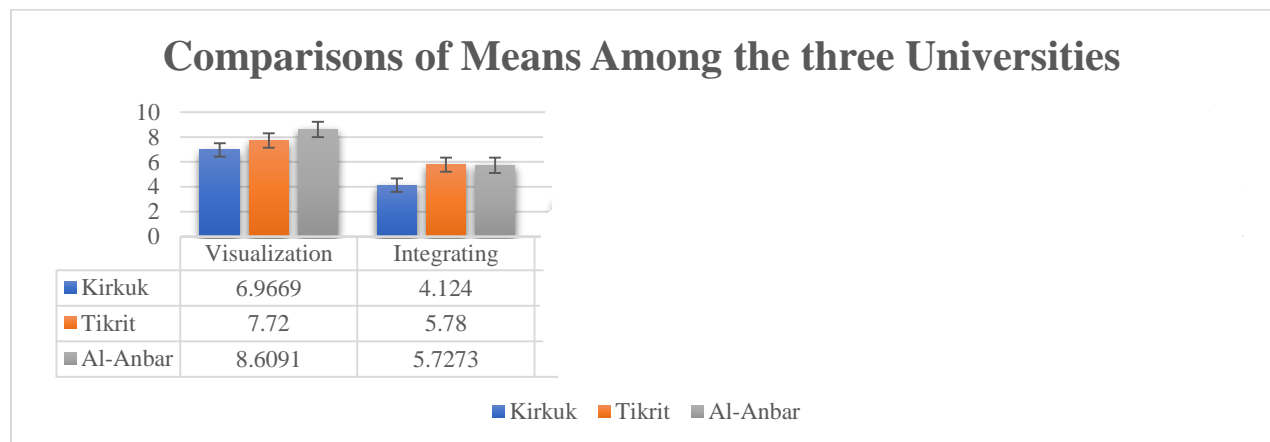
This study attempts to investigate the use of output cognitive strategies by EFL university students in studying short story at the three colleges of education Tikrit, Kirkuk ,and Al-Anbar universities.

Cognitive strategy is an internal process known as the learning process of control.This study will help the students to use output cognitive strategies in a correct way in their studying of short story.

They cannot use the appropriate strategy to answer the questions, for example when ask them to interpreting specific paragraph of the story they write summary about the whole chapter from the story In addition to that students make mix between the use of interpreting and integrating of the event of the stories, and also the students do not have the ability to give reasons about the actions that are happen in these short stories the results of the first hypothesis is related to the EFL university students' use of output cognitive strategies types in studying short story at three universities (Visualizing , Integrating). The results show weak use of output cognitive strategies types with all the students at the three universities, With an advantage for some universities in performance.

According to the comparisons of means shown in table 7 above, the mean test scores of Kirkuk 6.9669, Tikrit university 7.7200, and Al-Anbar university (8.6091) with harmonic mean sample size = 124.885. This suggests that there are statistically significant disparities between students in the first kind (visualizing ) at the three universities, with Tikrit and Al-Anbar universities gaining the upper hand.

As shown in Table 9 the comparisons of means for the second type (integrating) revealed that the mean test scores of Kirkuk 4.1240, Al-Anbar University 5.7273, and Tikrit University 5.7800 were harmonic mean sample size = 124.885. This indicates that there are statistically significant and in favour of Tikrit and Al-Anbar universities. See figure (1):



### **Figure (1) The Comparison of output cognitive strategies types at the Universities of Tikrit, Kirkuk and Al-Anbar**

Whereas the results related to the second hypothesis, the comparison made among EFL university students' use of output cognitive strategies in studying short stories according to gender at three universities Generally, a T-test formula for two independent samples is applied to achieve the third hypothesis, based on the table 25 the results, and the comparison between the males' and females' use of output cognitive strategies in studying short stories. It is clear that the females' mean scores at the three universities is 35.58 with a 18.73 standard deviation, while the males' mean scores is 33.49 with a standard deviation of 20.22, the computed t-value 1.041, which is less than the tabulated t-value 1.968 at 0.05 level of significance. This shows that there is no statistically significant difference between how males and females study short stories using output cognitive strategies. As a result, this hypothesis is rejected.

It is abundantly clear that the various kinds of output cognitive strategies are the ones that are the most challenging, which indicates that the students have a more challenging time with output cognitive strategies. Therefore, the desired level of success is not achieved, and the students do not possess output skills. This indicates that there is a lower level of mastery in the competency of essays. It is possible that the instructor of the "short story" in the third stage does not place a sufficient amount of importance on the cognitive strategy of the learner, which always develops in line with the learner's level of success.

In addition, students are unable to focus on output cognitive strategies for student engagement. Finally, teachers might offer students with a selection of themes. A cognitive output approach ensures that learners gain new information or abilities by applying what they have learned and making sense of their experiences. For instance, assigning students to teach a topic they wish to study. The teaching (output) concentrates the attention of the students on organizing the newly acquired knowledge or ability in order to teach it to others. Through this method, students are able to comprehend what they wish to study.

The findings of the current study reveal that students in English Departments/Colleges of Education at the universities of Tikrit, Kirkuk, and Al-Anbar use output cognitive strategies at a low level. This can be ascribed to the fact that students are unable to execute all forms of output cognitive processes.

## SECTION FIVE

### 5.1 Conclusions

The present study has come up with some conclusions, the most important of which are the following:

1. Output cognitive strategies increased students' confidence in learning and encouraged them to use their own thinking and imagination.
2. Most of the students are weak in using these strategies
3. Students are weakening in creative thinking and this weakness is due to the level of the students themselves and most of the teachers did not focus on the aspects that enhance students abilities in using OCS (summarizing and analyzing).
4. It was concluded that most of the students can not use the appropriate strategy in answering the questions given to them.
5. The level of students may improve in using these strategies by teaching them how to use these strategies by the teacher, and this will develop their knowledge in analyzing the events in the stories

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