

“The Effect of Applying K-W-L Technique on Teaching ESP Students”

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Abstract

Over the last few decades, many instructors have been trying all kinds of teaching methods, but without benefit. Nevertheless, in the 1986, a new technique is appeared which called K-W-L technique, it is specified for reading comprehension passages because reading skill is not easy matter for students for specific purposes (ESP).therefore, the K-W-L technique is a good one for thinking and experiences. To fulfill the aims and verify the hypothesis which reads as follows" it is hypothesized that there are no significant differences between the achievements of students who are taught according to K-W-L technique and those who are taught according to the traditional method.

T- test for two independent samples is used to analyse the final test. The analysis of results shows that experimental group who are taught according to K-W-L technique is better than control group who are taught according to lecture method. Finally, the outcomes of present research appeared that K-W-L enables the students to activate their prior knowledge and operate their thinking, besides the students centered the classroom activity and they learn what they want to learn and interest.

" تأثير تطبيق تقنية K-W-L في تدريس طلاب اللغة الانكليزية لاغراض خاصة "

من قبل

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المخلص

خلال العقود المنصرمة، العديد من المدرسين حاولو التدريس بكل طرائق التدريس ولكن تاثير قليل. في سنة ١٩٨٦، ظهرت طريقة ابداعية تسمى (تقنية K-W-L). خصصت هذه التقنية لتدريس القطع الاستيعابية وذلك لان مهارة القراءه ليست سهله لمتعلمين اللغة الانكليزية لاغراض خاصة. لذلك تعتبر (تقنية K-W-L) جيدة في اثاره التفكير والاستفادة من خبرات المتعلمين السابقة . لتحقيق الاهداف واثبات الفرضية والتي تنص " ليس هناك فرق بين تحصيل الطلاب الذين درسوا وفقا (تقنية K-W-L) وبقية الطلاب الذين درسوا وفقا لطريقة المحاضرة. الاختبار التائي لعينتين مستقلتين استعمل لايجاد النتائج. اظهرت النتائج بان تحصيل مجموعة(تقنية K-W-L) افضل من مجموعة طريقة المحاضرة. بينت النتائج ان طريقة (تقنية K-W-L) مكنت الطلاب تفعيل معرفتهم السابقة والاستفادة منها وتنمية التفكير لديهم. بجانب ذلك اصبح المتعلمين هم محور عملية التعليم ويتعلمون وفقا لاهتماماتهم وقدراتهم.

1.1 Introduction

English for specific purposes henceforth (ESP) is known as a learner centered approach to teach English as a foreign or second language. It covers the students' needs who want to learn a foreign language for specific fields such as, science, technology... and academic learning. (Yildiz, 2004:1)

Korotkina(2010:1) indicates that "ESP is probably the most challenging branch in language teaching, where it has only recently started to develop as such". As a result, any teacher of ESP needs authentic tasks to facilitate the process of learning and teaching; therefore, a good technique, which is used for students of second language, is K-W-L chart especially for reading comprehension strategy because it is difficult to understand what students of ESP are reading, and this problem creates a frustration for them. Therefore, to help them understand what they are reading, students will be taught a reading comprehension technique, which is called K-W-L technique. K stands what you know, W stands for what you want to know, and L stands for what you want to learn. The goal beside this strategy is students will utilize the K-W-L comprehension technique when they read to understand what they have read and they will be able to explain the three steps to the K-W-L reading strategy.

K-W-L comprehension technique can be used at all grade levels and it works with all types of text especially useful for understanding expository text, (Michael, 1998:1).

Conner (2006:1) identifies the purpose of using K-W-L strategy which shows as follows:

- 1- Elicits students' prior knowledge of the topic of the text.
- 2- Sets a purpose for reading.
- 3- Helps students to monitor their comprehension.

- 4- Allows students to assess their comprehension of the text.
- 5- Provides an opportunity for students to expand ideas beyond the text.

1.1 Aims

- 1- Assess the effect of using K-W-L technique in teaching reading comprehension.
- 2- Enable ESP students to understand the passages.

1.2 Hypothesis

It is hypothesized that there is no significant differences between the achievements of students who are taught according to K-W-L technique and those who are taught according to traditional method.

1.3 Limits

The present study is limited to:

- 1- First year students at the Department of Arabic Language/ College of Education for Women/ University of Baghdad during the academic year (2009-2010).
- 2- The material is restricted to textbook named “English for students of Arabic” written by Majeed A.H. AL- Mashta & Duncan Cameron, and the researcher adopted the entitled passages “English Language” ,” Hammurabi”, and “Arabic Language” as a research sample.
- 3- K-W-L technique as a technique of teaching ESP students.

1.4 Definition of Basic Terms

ESP, K-W-L technique, and lecture method

ESP: “Hutchinson and Waters (1987) define ESP as an approach rather than product-meaning that ESP does not involve a particular kind of language, teaching material or methodology. The basic

question of ESP is: why does this learner need to learn a foreign language? The purpose of learning English became the core”.

K-W-L technique:” Blaskowski defines the K-W-L teaching technique is a good method to help students activate prior knowledge. It is a group instruction activity developed by Donna Ogle(1986) that serves as a model for active thinking during reading”.

Lecture method: information is presented orally or teach student about particular subject, for instance by a university or college teacher. Lectures are used to convey critical information, history, background, theories and equations, (Lecture online, 2010:1).

2. K-W-L technique

2.1 Overview

The K-W-L chart was created by Donna Ogle in 1986. The chart is a comprehension technique used to activate background knowledge before reading and it is learner-centered.

K-W-L chart is a graphical organizer designed to help in learning. The letters K-W-L are an acronym for “what we know”, “what we want to know” and “what we learned”. It is divided into three columns titled know, want, and learn. Sometimes the chart is different from one topic to another depends on type of material included and excluded. The first column ‘K’ is for what the students already know about the topic. It is supposed that this step is completed before reading. The next column ‘W’ is for students to list what they want to learn about the topic during the reading; this step is also to be completed before the reading. The third column ‘L’ is for what students learned from reading; this step is done after finishing the reading.

On the other hand, the K-W-L technique can be used to drive instruction in the classroom. The instructor creates lesson plans depended on students’ needs and interests, and this technique is useful because it

increases the motivation and attitude of students and enables the instructor to understand students' knowledge and interests in the material, (K_W_L table Online, 2009:1).

2.2 Goals for using K-W-L technique

There are many reasons for using K-W-L technique in the classroom. First, a KWL technique activates students' prior knowledge of the topic by asking students what they know about the topic, and this step operates students' thinking and restores their experiences about the topic. Second, it provides opportunity for students to participate and engage in the topic by asking them what they want to know. Finally, this step is very important because it allows the students to expand their knowledge and know their needs and interests; in addition, the instructor has a clear picture about his/her students to prepare lecture plan that they enjoy, (K_W_L table Online, 2009:2).

Backman (2006:79) indicates that K-W-L technique is a good strategy because it enables the teacher to assess students' background knowledge and interests before the lecture. Afterward, it helps instructors to evaluate the content material that are learned. K-W-L technique represents as a class activity or an individual basis. The K-W-L technique can be completed in the first language or with illustrations, if students have limited English proficiency.

2.3 Framework of the Applied K-W-L technique

Steps below are being followed in applying K-W-L technique in teaching depending on printed papers and whiteboard as tools of equipment to demonstrate and explain the material. Otherwise, (computer, data show, and overhead) are not available in the classroom; therefore, these technologies are excluded.

The steps followed by the researcher are:

First: Before Reading

- A. Selection of the passages.** In this study, the researcher has randomly selected three passages from textbook to be a sample of the present study.
- B. Explanation of the difficulties in understanding what they have read.** Therefore, the researcher starts to talk about comprehension technique to help the students understand a reading passage, and this technique is called K-W-L,(Michael,1998:2). The researcher explains that reading passages is not easy matter because the students learn English language as a minor purpose; furthermore, they are students of Arabic language and English language is a big delma that most of college students suffer from it.
- C. Description of the K-W-L technique;** K=what we know; W= what we want to know; L= what you have learned.
- D. Creating a K-W-L chart.** The instructor prepares a chart on the blackboard or on an overhead. Jones (2007:1) adds another tool of presentation K-W-L chart such as, a handout or on students' individual clean sheets. The researcher drew the chart on the whiteboard and she distributed the printed paper among her students. After that, she began to explain the meaning of each column and where they wrote the notes. The lectures were being started by asking them what they know about e.g. (Arabic Language, Hammurabi and English language).
- E. Labeling the columns as follows:**
column 1 K, column2 W, column3 L. Conner (2006:1) states that at this step, the instructor asks his/her students to brainstorm words,

terms, or phrases; they associate with a topic. Both the instructor and the students record these associations in the K column of their charts. This is done until students run out of ideas. Engage students in a discussion about what they wrote in the K column. The researcher uses Hammurabi as example to explain the steps of application in detail. The students' minds are refreshed with what they remember about Hammurabi. The remembered material is recorded in the first column K by the researcher on the white board and the students on their papers as shown in Appendix (1).

F. Jones (2007:1) states that “before reading, viewing or listening students fill in the know column with words, terms, or phrases from their background or prior knowledge; if you are having them draw on a topic previously learned, then the K column maybe topic-related.” But if the topic is something brand-new, and the students do not know anything about it, the researcher should use the K column to have them bringing to mind a similar, analogous, or broader idea. He (ibid) adds that the reason behind doing K column in the chart is to have students bring to mind something they already know, as a hook to which new information can be attached.

After recording important information about (Hammurabi), the researcher begins to ask them before reading what they want to know about this topic (Hammurabi). The students seem very happy because they direct the process of learning and learned what they want to learn according to their attitude not what they should to learn. They discuss each point with their instructor (the researcher) and record each point in their printed paper while the researcher registers the point on whiteboard.

G. It is worth to mention that most of Arabic students use the style of statement not the questions; furthermore, they use their native

language (Arabic) when they cannot explain what they want to learn in English language. The instructor helps her students by shifting the statements into questions to be understandable and facilitating the process of creating questions by generating a list of question among them; in addition, gives the meaning of difficult words. Conner (2006:2) clarifies this step by highlighting the role of the instructor who ask his/her students what they want to learn about the topic after they run out of ideas for question. If they answer with statements, the instructor will turn them into questions when they record in the W column.

Conner suggests alternative questions for generating ideas for the W column. If students' reply to "what do you want to learn about this topic" either having trouble coming up with ideas or saying 'nothing', the following questions can generate new ideas:

What do you think you will learn about this topic?

From The text you will read Choose an idea

from the K column and ask," what would you

like to learn more about this idea?

Furthermore, the instructor prepares amount of questions in order to focus on ideas in the passage when they feel that students' questions are not enough to emphasize them; however, the majority of students' questions should be more than instructors' questions in the W column because they are students-generated or call it student centered questions.

Second: While Reading

- A. Begins to read the passage and gives the meaning of difficult word, and the researcher asks her students to put stars above the questions which the passage answers it in W column till the end of the passage. As shown in Appendix (1).**

- B. Students should check the answers to the questions in their W column and they can fill L column.**

Third: After Reading

- A. The students fill out the L column of their charts. In addition the answering the W column questions, the instructor increase students' motivation to write in L column the interesting ideas for them, and they can put a check mark to the information that answers questions from the K column and put a star next to ideas that are interesting to them.**

Otherwise, the questions that were not answered in the passage, the instructor encourage them to conduct other resources to search for answers to those questions. Jones (2007: 1) notes that this stage is called Meta cognitive and he determines the purpose of using this chart to develop met cognitive skills, keep them focused and interested during reading, and gives them a sense of acquired information when they fill in the L column after reading.

- B. The researcher and the students discover some interesting information which they did not ask about them because they did not know before. On the other hand, they select the unanswered questions in W column to find another resource in order to cover the topic completely. Since the E-learning is the modern technology and a good tool in learning nowadays to save time and efforts , she asks her students to search in internet programme about unanswered questions in next lecture to motivate and encourage them toward modern resources and enrich their knowledge as much as possible.**
- C. Another column is added; how to find out unanswered question to be the homework of next lecture and answer the questions which is**

found in textbook. Consequently, each passage required two lectures with four hours to cover it completely.

2.4 Extra programme

Before The application of k-w-L techniques, the researcher classifies the lecture according to A, B, C, D method of writing objectives.

However instructors should classify objectives because the type of objectives attempted dictates the selection of instructional methods, media and evaluation used in the lecture. These learning outcomes are classified according to the primary learning outcomes that take place (Bannon, 2002: 1).

The following letters explain the objectives of the lectures:

A: Audience (The students of College of Education for Women

B: Behavior (will be able to understand the reading passages.

C: Conditions (They answer all the questions in W and H

D: Degree of mastery (covering the comprehension of reading passages perfectly).

The capability of communicating in English via internet facilitates exchanges between learners, and using the internet in teaching English offers an opportunity for students to practice what they learn in the class and experience the actual usage of the English language in the real world. The internet programme can be considered a means of booting the learners' skills further more, it cannot replace the instructor.

(E T T C , 1997 ; 1_2)

After the lecture is finished , the researcher asks her students to internet programme or any other sources to find out the un answered information in the passage which is related to "H" columns which means " How to find out unanswered information "or" what I still need to find out " or another resources like books , magazine , journal etc .

However, the students are surprised because they are not familiar with this type of finding new information for them especially the internet

programme. So that, they are busy to find such information in internet, and this way is the easiest and interested one for them.

3. Procedures

3.1 The Sample and Population of present research

The population of present study is limited to first year students (evening study) in the Department of Arabic language/ College of Education for Women/ University of Baghdad during academic year 2009-2010. The researcher herself is the instructor who teaches them ESP for two terms. In the first term, the students are taught rules of grammar; whereas in the second term, they are taught reading passages.

The total number of the sample is (30) students who were randomly chosen from the population, and they were distributed into two groups: group A which is called control group, and group C which is called experimental group ;while group B is excluded to equivalent the sample.

The sample is chosen in accordance with certain criteria. These are: age, students' achievement in English in the previous year and students scores in the pretest.

By using t-test for two independent samples, it has been found that no significant differences among the students (control and experimental groups) in these variables at (0.05)

<i>Variable</i>	<i>Group</i>	<i>N</i>	<i>X</i>	<i>S</i>	<i>df</i>	<i>Computed T_value</i>	<i>Table T_Value</i>
Age in years	E	15	8778	102.39	28	0.591	2.048
	C	15	88.3	49.33			
Average scores of English in previous year	E	15	60.06	708.934	28	0.6243	2.048
	C	15	62.53	1069.74			
Pretest scores	E	15	12.86	199.75	28	0.482	2.048
	C	15	12.33	54.09			

3.2 The experiment

The program is applied during the period from 1st of April to 6th of May for six weeks and followed by post test on 13th of May. The researcher during six months teaches three passages named “Arabic Language”, “Hammurabi”, and the “English language” which are found in their textbook as aforementioned in limits of study. Both groups are taught two hours per week by using (K-W-L technique) for experimental one and (lecture method) for control group. Though lectures are much criticized as a teaching method, universities have not yet found practical alternative teaching methods for the large majority of their courses. Critics point out that lecturing is mainly a one-way method of communication that does not involve significant students’ participation. However, lecturing is often contrasted to active learning and learners centered classroom. (Lecture online, 2010:1)

3.3 Test Validity

The most important quality to consider when selecting or constructing an evaluation instrument is validity. This refers to the extent to which evaluation results serve the particular uses for which they are intended. (Gronlund , 1965 : 77)

To check test validity, the test has been submitted the items one by one with the jury. The researcher took their valuable notes into consideration and made all the necessary modification accordingly.

The jury members consist of:

N	Name of instructor	College	University
1-	Prof. Najat Al- joubory	College of Education for Women	Baghdad
2-	Asst. Prof. Shatha Al-Sa'adi	College of Education for Women	Baghdad
3-	Dr. Inst. Radhe'a Mutar	College of Education for Women	Baghdad
4-	Instructor Shama Mahadi	College of Education for Women	Baghdad
5-	Asst. Inst. Swsen Sao'od	College of Education for Women	Baghdad
6-	Asst. inst. Maysa' Rashed	College of Education for Women	Baghdad

3. 4 The Pilot study and Item Analysis:

After constructing the test, a pilot study was required to find out exactly whether the test is well constructed or not. The result of the pilot study can be a good indicator for making any necessary modifications in the final version of the test , to estimate the time allotted for answering all the items of the test as a whole , to determine the effectiveness of the test items of their difficulty level and discrimination power in the light of the students answer . Thirty students are chosen randomly as the subjects of the pilot study.

The findings of the pilot study indicated that the time required to complete the test is fifty minutes.

After the application of item difficulty formula , it was found out that it ranged between (0.25_0.74) according to Mc_Namara (2000; 60) the difficult items will certainly separate the good student from the very good one , whereas easy items separate the poor student from very poor one . In addition ,the difficult items will encourage and motivate the good student, and very easy items will motivate poor one. Furthermore, after the application of the formula of the item discrimination power, it is found out that the discrimination power of the item ranges between(0.20_ 0.75)

According to Ebels index of discrimination, a good classroom test item index of discrimination of (0.30) or more. (Ebel, 1972: 399).

3.5 Test Reliability

Reliability is defined as the stability of test scores. A test cannot measure anything well unless it measures consistently, (Thorn bury 1999: 141).

To determine the reliability of the test for the two groups, the researcher has applied the Kuder_Richardson formule (20) to find out the extent of test reliability. The reliability coefficient is computed to be (0.88) which was considered acceptable.

4. Test Administration

After the test has gained the validity and reliability qualifications, the researcher applied the test to do experimental central groups of 30 first year student. It was given to the student under the same conditions. What they required to do in each technique was given to them in English and Arabic languages. It is worth mentioning that the post test has applied on 13th of May \2010, and the students responses are categorized according to two criteria either correct or incorrect.

4. 1 Result Analysis

As regards the null hypothesis of this study which reads as follows: "it is hypothesized that there are no significant differences between the achievements of students who are taught according to K_W_L technique and those who are taught according to the traditional method, the T_ test formula for independent samples has been used to determine whether there is any significant difference between two groups.

A comparison of the mean scores of the two groups on the test result that the mean scores of Experimental group is (10.93), and the mean scores of control group is (8.13) . The T_ value is (3.070) where as the T_ tabulated value with 28 df at 0.05 level of significant is (2.048) as shown in

Table (1)

Table (1) The mean, ss . and T_value

<i>Group</i>	<i>N.of students</i>	<i>mean</i>	<i>SS</i>	<i>T_value</i>		<i>df</i>
				<i>Comp.</i>	<i>tabu</i>	
Experimental group	15	10.93	32.94			
				3.070	2.048	28
Control group	15	8.13	143.74			

The calculated T_value as shown above indicates that there is significant difference at the level and with the degrees of freedom above between the two groups. Therefore, the experimental group is better than the control group and the null hypothesis that mentioned above is rejected.

4.2 Conclusions

1. It has been found that the experimental group who are taught according to K-W-L technique is better than the control group who are taught according to lecture method, and this proves that K-W-L technique participates in increasing the achievement of ESP students at University level.
2. K-W-L technique represents a good technique which enables the students to activate their knowledge and operate their thinking to memorize their information. Therefore, it deals with Meta cognitive skills.
3. This technique enables the students to be more active and participate in the process of learning. This state is called the student –centered classroom because the learning process is based on student’s interests and needs.
- 4- In K-W-L technique, the instructor does not direct the learner, but provides support for the learners to be able to learn on their own. While in lecture Method, the instructor centered classroom because shegives the

lecture orally and it is one- way method of communication, besides the students' role is neglected.

6-K-W-L technique appropriates for reading comprehension skill. The students choose what they want to learn and the class work is relevant to the students needs ; therefore , many student are interested to find out the unanswered information from other resources like books , journals , internet articles and this stage is called Apply new learning to real – life , authentic experiences .

4.3 Recommendations and suggestions for Future work

- 1. The students learn better through K-W-L technique because it is “the student-centered classroom “and the students are part of constructing their own learning.**
- 2. The students and their instructor work collaboratively and the instructor is still in charge.**
- 3. A comparison study can be made between University stage and Secondary stage using the K-W-L Technique.**
- 4. A further study can be applied by using K-W-L technique for other skills like structure and writing.**

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Appendix (1) A Sample of K-W-L answer sheet that distributed to the students

What I know about (.....)	What I want to Know	What I have learned	What I find out unanswered
1.	1.	1.	1.
2.	2.	2.	2.
3.	3.	3.	3.
4.	4.	4.	4.
5.	5.	5.	5.
6.	6.	6.	6.
7.	7.	7.	7.
8.	8.	8.	8.
9.	9.	9.	9.
10.	10.	10.	10.