

Effectiveness of Web Quest Strategy in acquiring geographic concepts among eighth grade students in Jordan

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ABSTRACT

This study aimed at identifying the Effectiveness of using Web Quest Strategy in acquiring the geographic concepts among eighth grade students in Jordan. The study individuals consisted of (119) students in the scholastic year 2013-2014. Four sections were randomly selected from two schools divided into experimental and control groups. They were distributed to the experimental group that consisted of (58) male and female students taught by Web Quest Strategy, and a control group that consisted of (61) male and female students taught by the traditional method. To achieve the study objectives, teaching plans were prepared according to the Web Quest Strategy and testing the acquisition of the geographic concepts. The study results showed the presence of differences with statistical significance at significance level ($\alpha = 0.05$) between the means of the students' scores on the test acquiring the geographic concepts' attributed to the teaching method in favor of the experimental group. But the results did not reveal the presence of differences with statistical significance between the means of the students' scores on the test acquiring the geographic concepts' by the eighth basic grade students attribute to the gender variable or to the interaction between the teaching method and gender.

Keywords: *Web Quest Strategy, Geographic concepts, Eighth Basic Grade.*

INTRODUCTION

The new vision of developing education focuses on knowledge economy in Jordan by employing technology in education and preparing a generation of learners able to deal with technology and use it effectively. Undoubtedly, raising the level of outputs is the basic goal of the development process that requires students who know about the modern technology to help them construct the knowledge and employ it in their life.

One of the basics of developing education in Jordan was the focus on the concepts and the cognitive structure to be presented in a way that assures the learners' effective role in learning by depending on their activity, work and practice which help them to understand and apply these concepts. Developing education also focuses on using knowledge in life and employing the concepts and the cognitive structures in dealing with daily practical problems and situations (Al-Ziadat & Qatawi, 2014).

Educators confirm that helping the students at different studying stages to learn the concepts in an effective way is a fundamental objective of the basic education, and learning the concepts facilitates learning the educational content, increasing its fixation in the memory, improving the students' abilities in achievement and education, and employing the educational experiences (Qatawi, 2007).

The concepts considered the important component in the content of Geography subject. Learning and developing these concepts is considered one of the teaching objectives of Geography subject, teachers of Geography need to know how to use the teaching method in teaching the geographic

concepts. It is worth mentioning that learning the geographic concepts has a great importance; studying the cognitive concepts of any subject starts by clarifying the basic concepts to enable the students the ability to use them (Ababna,2006; Al-Zydat & Qataqi, 2014).

Published in 2005 by the Textbooks And Curricula Directorate in Jordan, the general frame of the Geography subject makes the student aware of his social, political and economic role in his society. It also helps him in understanding the relations between time and place, and scientifically explaining the natural and human phenomena. Therefore, these objectives cannot be achieved unless modern strategies in teaching Geography are used.

Al-khidr (2014) and Al-Kasab (2011) pointed that one of the important challenges facing achieving the Geography Subject's objectives is the lack of using modern strategies in teaching. As many researchers stated, the common method in teaching Geography depends on memorization and drilling that make the students rely on the teacher in obtaining the geographic concepts and take them away from enquiry, research and thinking skills (Al-Edwan& Al-Shra, 2008).

So, those who are interested in teaching Geography seek to find strategies and methods of teaching suitable to the modern technological developments, on the one hand, and to the tremendous scientific progress in the geographical information on the other hand (Abdalbasit,2003).

In 1995, Bernie Dodge and Tom March from San Diego State University developed a form of a lesson plan that incorporated links to the World Wide Web. Students were asked to complete some project and to solve problems. The scenario they were given was intriguing and motivating. The students were asked to build and analyze the information that they collected on the Internet and to find solution to the problems (Gokalp,2011).

Web Quest Strategy is considered one of the most important strategies that links between the educational planning of the educational process in an accurate form and between using the Internet. It is considered a constructive educational pattern that based on the learner model as a traveler and explorer, and it assured the interaction between the learners and the teacher during the educational process. Additionally, it reflects the idea of the modern teaching that relies on the latest technology as a source of knowledge (Lacina, 2007; Wang & Hannafin, 2008).

The Web Quest Strategy is defined as purposeful educational activities, guided by enquiry that depends on searching processes in the Internet to reach the correct information with less time and effort and to develop the students' mental capabilities. It is an educational mean which aims at presenting a new learning system through integrating the Internet in the educational process, it is a flexible learning mean that can be used at all stages form school to the university, and even in all the courses and majors (Al-Hila &Nofal,2008:206)

Sen & Neufled (2006) see that this strategy is a cognitive journey in the Web to reach the correct information with less effort and time to develop thinking, this strategy makes the learning process an interesting process to the students that increases their motivation and participation in the classes.

Schweizer & Kossow (2007) assured the same idea as they also believe that Web Quest Strategy is a logical method used for the cognitive sailing in the Internet to deepen the students' understanding and expanding their thinking. And Halat (2008a) considered it as a teaching approach based on the student and on the constructive theory, thinking skills, and on the cooperative learning.

Joma` & Ahmad (2012) worked on the concept of the Web Quest Strategy which is one of Piaget's most important educational applications that is based on his assumptions in the mental growth. This assumption states that educational applications affect greatly the methods of teaching. This means that the learner constructs his knowledge by himself and he can reconstruct it through the process of the social negotiation with others. And one of the assumption bases is that ideas are not given to the students but they have to build their own concepts and knowledge created through their thinking and self activity (Zeitoun,2007).

The web quest idea can be summarized in building oriented activities and performances that investigate an issue or a specific topic, which are in great portion specialized and pre-selected sites over the internet. It has been classified in to two types (Gokalp,2011):

- Short-term web quest that its time extends from one class to three classes, often its objective is to provide the students with the knowledge and understanding.
- Long-term web quest, which its time period ranges from one week to full month, it is about questions that require higher thinking skills (Such as analyzing composing and evaluating).

The web quest consists of the following elements (Ismael & Abdo, 2008).

- Introduction: that provides the students with the cognitive background about the lesson's topic in a way that induces their motivation.
- The Task: it is the most important and basic part of the web quest and includes the sub tasks, such as the collection, design, creative production, persuasion and issuing the rule, and other tasks.
- The process: at this stage the mechanisms are determined and explained clearly to the students, also the steps they will make to accomplish toe educational tasks.
- The Sources: at this stage a list of available sources is determined which cover the students cognitive needs, to be designed professionally and reliably.
- Evaluation: this stage considers an important component of the web quest, so the students will be able to perform the self-evaluation and compare what they had learned and accomplished and the teacher evaluates his students, work at the previous stages.
- Conclusion: at this stage we should place a set of recommendations regarding the web quest work, and about the students work and the results they had reached, encouraging them to apply what they had learned of experiences to other settings.
- The web quest strategy characterizes by its capability to greatly increases the students, attention about it contains of the sites, pictures, maps, figures, models, sounds, videos and other features, while the advantages of web quest strategy in education represent the following (Saleh,2012):
 - Encouraging the collective work and exchange of ideas between the students.
 - Enabling the students the opportunities for searching deeply for specific topics.
 - Equipping the students with searching skills over the internet web.
 - Encouraging the students, self-evaluation.
 - Dealing with the information sources regarding the quality and efficiency.

The results of the studies assured the effectiveness of using Web Quest Strategy in developing the students' learning skills, thinking skills and achievement. For example, the study of Brunton (2005) concluded that the achievement of the eighth grade students in science attributes to the integration of technology using Web Quest Strategy and the students who were taught by using Web Quest Strategy showed positive attitudes towards the Science subject. And the study's results of Michelle & Eula (2005) showed the superiority of the students who studied Math by using Web Quest Strategy over the students who studied by the traditional method. The results also showed differences attributed to the gender variable in favor of the females. And the results of Jadallah (2006) which carried out in Jordan revealed statistically significant differences in achievement in the intermediate and delayed exams of the students who learned by Web Quest

Strategy and they have positive attitudes towards Chemistry subject. And the study recommended the necessity of having training courses in Web Quest Strategy in the programs of the Educational Sciences Colleges.

The results of Ikpeze & Boyd's study(2007) which aimed to measure the effect of the scientific tasks based on Web Quest Strategy on developing the sixth grade students' higher order thinking skills. The results revealed that there were differences between the experimental group who taught using Web Quest Strategy compared to the control group that taught by the traditional method.

While the study of Ismael & Abdo (2008) showed the impact of using Web Quest Strategy in teaching Science on developing methods of thinking and the attitudes towards using it by the female students of the Educational College at King Abal-Azeez University-Jeda'h. The results were in favor of the experimental group compared to the control group.

Al-hila & Nofel' study (2008) showed statistically significant differences in favor of the control group which learned through using Web Quest Strategy in developing the critical thinking, there were statistical significant differences in favor of the experimental group in developing the achievement in course of Teaching Thinking of the students of University Educational Sciences (UNRWA) in Jordan compared to the control group.

Halat (2008b) conducted a study aimed at identifying the impact of Web Quest Strategy on developing the motivation and the attitudes of the students of the basic education section in Math. The results revealed positive attitudes towards Math between the experimental group which studied by using Web Quest Strategy and the control group that studied by the traditional method in favor of the experimental group.

The purpose of Cokalp (2011) study was to investigate the effect of the web quest based instruction on ninth grade students, achievement and attitude towards force and motion subject. Study sample consisted of (226) ninth grade students from eight classes of four high schools in Ankara. The students in the experimental group received web quest based instruction, and the students in the control group received traditional physics instruction. The results showed significant mean differences of the achievement in favor of the experimental group, but no significant difference was found for the attitude towards force and motion between the groups.

The results of the study conducted by Joma' & Ahmad (2012) showed statistically significant differences in the achievement of the third-level students in College of Science at the University of Sulaimani-Iraq, in the course of Organic Chemistry in favor of the experimental group which studied using Web Quest Strategy compared to the control group.

The study of Saleh (2012) concluded the effectiveness of using Web Quest Strategy in stimulating the ninth grade students' academic attitude towards learning Math in Tulkarm Governorate - Palestine. The students expressed their preferences according to the use of the Web Quest in learning Math.

The researcher concluded that most of the previous studies which addressed Web Quest Strategy were in the scientific subjects as the studies of (Michelle & Eula, 2005; Jadalla, 2006; Ikpeze & Boyd, 2007; Ismael & Abda, 2008; Joma' & Ahmad, 2012), showed the effectiveness of Web Quest Strategy in increasing achievement and developing thinking skills in the scientific subjects. But the researcher did not find -according to his knowledge- any study addressed Web Quest Strategy in the humanities and social sciences particularly in Geography subject. so the researcher was encouraged to identify the effectiveness of the Web Quest Strategy in acquiring the geographical concepts in order to keep up with the modern trends in teaching Geography. And the researcher has gained the benefit from the previous studies in developing the tools of the study and preparing daily planning of a lesson according to the Web Quest Strategy.

Based on what has been mentioned, the researcher sees the necessity taking into account the technological changes, carrying out experiments to obtain benefit of these technologies to improve the students' level of acquiring the geographic concepts. Therefore, the objective of this study is to identify the effectiveness of Web Quest Strategy in the geographic concepts' acquisition by the eighth basic grade students in Jordan.

STUDY PROBLEM & HYPOTHESIS

The interest of developing the educational process has been increased in Jordan with the call for the necessity of using different methods of teaching; improving the educational process is linked with its transformation from depending on the traditional method that focuses on memorization and drilling to learning that stimulates the students' desire in discovery through different situations and activities.

Based on the change and the development in the Geography curricula for the eighth grade in the shadow of the knowledge economics era, it is no longer relevant that the students sits as receptor of information, rather there should be the confirmation on the students as the axis of the learning and teaching process.

Many studies and educational researchers as the study conducted by (Al-Edwan and Al-Shar'a, 2008) indicated that the achievement and the attitudes of the tenth grade students towards the geography subject were weak and negative. Also, the study by (Al-Kasab, 2011) showed the low academic achievement of the students in the geography subject, and the weakness in acquiring the Geography skills, low motivation to learn towards the Geography subject. From this point came the researcher's feeling the presence of a problem in teaching the Geography subject, and the necessity to search for teaching strategy that follow the knowledge explosion age and works to stimulate more than a sense in the learners, from this point came this research.

In addition to what the researcher noticed during his field visits that teachers' totally depend on the traditional methods in teaching Geography, the weakness in using technology in teaching Geography subject, the students' low achievement in Geography, in addition to the difficulty in applying the geographic knowledge to different educational situations.

Based on what has been mentioned previously, the researcher believes in the importance of using a modern method of teaching that is interested in the concepts and their acquisition by the students where the educational literature of teaching the concepts showed scarcity in the scientific researches and studies that paid attention to study the impact of using Web Quest Strategy on the geographic concepts' acquisition in Jordan. So based on this, this study came to identify the Effectiveness of Web Quest Strategy in the geographic concepts' acquisition among the basic eighth grade students in Jordan. Therefore, the study problem has been identified by testing following hypothesis:

- There are no differences with statistical significance at the significance level ($\alpha=0.05$) in the eighth basic grade students' acquisition of the geographic concepts attribute to the method of teaching (Web Quest Strategy and the Traditional Method) and the gender variables and the interaction between them.

OBJECTIVES OF THE STUDY

This study aims at the following

- Identifying the web quest strategy as a new teaching strategy that helps in acquiring the geographic concepts to the students.
- The contribution to the improvement of learning the geographic concepts in response to what the educational studies called for.
- Investigating the effectiveness of web quest strategy in acquiring the geographic concepts among the eighth grade students in Jordan compared to the traditional method.
- To show the effect of the differences between the males and the females in terms of benefiting from the web quest strategy and acquiring the Geographic concepts.

SIGNIFICANCE OF THE STUDY

- This study is compatible with the modern trends in teaching process in terms of its concentration on the concept of qualitative teaching which is characterized by being technological learning at the time the world started to increase the interaction between the teacher and the student on one hand and between the students themselves on the other hand. And the Web Quest Strategy considers an aspect of this global trend.
- The significance of this study lies in its harmony with the modern developmental thinking of Ministry of Education in Jordan, which is represented by the project of knowledge economy that focuses on using technology and helping the student constructing the concepts by himself.
- Attention of the specialists in the curricula of Geography as curricula designers and educational supervisors towards exploring a method that may motivate the students towards learning to improve their results and to employ Web Quest Strategy in geographic concepts' acquisition.
- Making the teachers of Geography aware of the Web Quest Strategy to improve the methods of teaching which have been already used and to develop them continuously at schools.
- Benefiting from the theoretical literature of the Web Quest Strategy in clarifying its educational applications.
- It encourages the researchers to do more researches and experimenting in the teaching strategies of the geography subject.

PROCEDURAL DEFINITIONS

Web Quest Strategy

Purposeful planned educational activities depend on the technology usage in teaching to help the students construct knowledge by themselves. These activities are represented by the research and enquiry processes in Internet in addition to journal and (CDs) in order to reach the information with less effort and time.

Traditional Method

A set of strategies in the teachers' guide book used by the teachers in teaching Geography subject of the eighth basic grade. It is a teaching method that relies on memorization and discussion strategies, in delivering the information to the students depending on text book using the same procedures with all students (Ministry of Education, 2013).

Geographical Concepts

All the meanings which the students have in the field of the concepts mentioned in the unit of Natural Resources Such as (natural resources, water resources, mineral resources, energy resources and maintaining and protecting the natural resources) which were all mentioned in the eighth grade book of Geography in Jordan for the academic year 2013-2014.

Geography Subject

The school curricula of the 8th basic grade which is taught in the schools of Ministry of Education for the year 2013-2014 including studying units distributed to two semesters, And this curricula includes the Unit Natural Resources.

THE STUDY'S LIMITS AND DETERMINANTS

Generalizing the study's results in the light of the following:

- The study is limited to a sample representing the eighth basic grade students (119) students of AL- Zarqa the Second Directorate of Education who enrolled in the public schools for the year 2013-2014.
- The study is limited to teaching the concepts mentioned in the Natural Recourses unit of the eighth grade book of Geography in Jordan.
- The study is limited to the teaching plans according to the web quest strategy and testing the acquisition of the Geographic concepts prepared by the researcher for the purposes of this current study.

METHODOLOGY

The researcher depended on the semi - experimental method of two groups to identify the effectiveness of using Web Quest Strategy in acquiring the geographical concepts by the eighth basic grade students in Jordan for the academic year 2013-2014.

Study Individuals

Study individuals consisted of (119) male and female eighth basic grade students who enrolled in the public schools of Al-Zarqa the second Directorate of Education, in the academic year 2013/2014. Table (1) shows the details about the two groups.

Table 1: Distribution of Study Individuals According To the Strategy of Teaching and Gender Variables

| Gender | Strategy of teaching | | Total |
|--------|----------------------|---------|-------|
| | Experimental | Control | |
| Male | 27 | 29 | 56 |
| Female | 31 | 32 | 63 |
| Total | 58 | 61 | 119 |

Moreover, four branches were selected randomly from two schools and distributed into two groups; the first group was the experimental group consisting of (58) male and female students who studied using Web Quest Strategy and the other group was the control one consisting of (61) male and female students who were taught using the traditional Method.

Study Instruments

The researcher used the following instruments to achieve the study objectives:

First: Preparing the Lessons Plans According To Web Quest Strategy.

The first Unit (Natural Resources) was selected from the eighth basic grade's Geography book to know the Effectiveness of Web Quest Strategy. To achieve this objective, the researcher prepared a guide to the teacher including thirteen plans of Web Quest Strategy. And to test its validity, it was presented to ten arbitrators representing academic staff's members at Balqa Applied University and the University of Jordan, in addition to supervisors and teachers of Geography who worked at Ministry of Education. The teacher's guide was adjusted according to the arbitrators' notes.

Stages of Preparing the Teacher's Guide:

- Analyzing the content of Natural Resources Unit. The unit consisted of six lessons (natural resources, water resources, mineral resources, energy resources and maintaining and protecting the natural resources) where the educational outputs and the main and sub concepts of each lesson were identified in addition to identifying the relation between them.
- Identifying the general steps of the strategy and preparing the daily planning of every class including the basic steps of every class and write the cognitive content according to these steps including the selected activities. And this stage was implemented according to the steps of Web Quest Strategy (Joma' & Ahmad, 2012; Salih, 2012);
 - Introduction: Clarifying the idea of each lesson in the unit of Natural Resources by firstly presenting the educational outputs and the whole idea of the student's task starting by identifying the idea and the method of the research, the required evaluation and the way of presenting the research, in addition to a basic question aims at stimulating the learners' motivation and attracting their attention to the subject.
 - Tasks: Include the organized and the pre-prepared major and sub task, the accurate and clear description of the final results of the activity. Some of the tasks to be achieved that will enable the students to acquire the geographical concepts, warding the subject in the students language, the students' retelling the content using their words and verification, reporter's missions, creative production, conversation, negotiation, practical and analytical tasks and making the judgment.
 - Operations: The sequenced steps of carrying out the activity were mentioned, the websites on Internet were identified, so as to be accessed by the students and each

- group which was formed by the teacher to search in resources which were provided by the teacher in addition to provide some guidance concerning ways of organizing and displaying the information as : PowerPoint presentations ,worksheets ,conceptual map, summaries tables, teaching path plan... and others.
- Resources: A list of related resources to the unit of Natural Resources was identified to help the students complete the tasks (electronic –websites, scientific encyclopedias, journals and periodicals, the researches, articles, PowerPoint presentations... and others.).
 - Evaluation: A set of standards that help in evaluating the students was prepared, and the teacher has to clarify the standards used in the evaluation process as the students' cooperation at work, using resources and the references, exchanging of information between the groups and students' communication skills. Other evaluation tools were used as Rating Scales, Check Lists and scoring guide.
 - Conclusion: it is a summary of the basic idea which the Web Quest Strategy searched for and summarizing the activities or the lessons results, and some questions or activities or other related links, which meet the students' desires in the expansion in the issue, were introduced.

Validity of the teaching plans according to the web quest strategy.

To check the teaching plans according to the web quest strategy, they were presented to (10) arbitrators from the teaching staff members at the University of Jordan, al-Balqa Applied University, the educational supervisors and teachers who teach the Geography subject in the ministry of education, they were asked to present their opinions regarding the teaching plans according to web quest strategy in terms of the linguistic wording of the specific educational outputs, their clarity appropriateness, and the scientific accuracy in formulating the lessons' activities, clarity and adequacy in the evaluation, and ease of application to the eighth basic grade's students.

The arbitrators suggestions and opinions were taken in to account, the proposed modifications were made on the teaching plans that received (80%) of the arbitrators agreements.

Second: Testing the Acquisition of the Geographical Concepts.

A test was prepared to measure the acquisition of the study Individuals of the geographic concepts in the unit of Natural Resources in the eighth grade book of Geography which the students studied in the first semester for the academic year 2013/2014. The test in its initial form consisted of (34) items of Multiple-Choice Questions with four alternatives for each item with one correct answer.

To check the test's validity, it was presented to ten arbitrators representing academic staff's members at Balqa Applied University and the University of Jordan, in addition to supervisors and teachers of Geography who worked at Ministry of Education. They were all asked to present their suggestions of deleting , adjusting items or adding some items. In the light of arbitrators' views and notes, the researcher made the appropriate adjustments which (80%) of the arbitrators agreed upon and so the test in its final form consists of (30) items of Multiple-Choice question and the grades range from the 30 (highest grade) to Zero (lowest grade).

The researcher also tested the reliability through applying the test to a sample, the study sample consists of (31) male and female students. The reliability was calculated according to Kuder Richardson (KR-20) and its value reached (0.91). Acceptable for the purposes of the study. The coefficients of difficulty and discrimination were calculated; the coefficients of items' difficulty ranged from (0.39 to 0.88) while the coefficients of discrimination of the items of the geographic concepts' acquisition test ranged from (0.26 to 0.79) and these values indicate that the value of coefficients of difficulty and discrimination are within the acceptable limits in the tests.

Procedures of the study

The following procedures were followed to conduct this study:

- Identifying the geographical concepts that should be taught by analyzing the unit of Natural Resources in the Geography Book of the eighth grade.
- Preparing the plans of the lessons of the Natural Resources' Unit in the eighth grade's book of Geography according to Web Quest Strategy which includes the educational outputs of the unit, electronic websites regarding to the short and long term cognitive journeys, tools and the educational means used in implementing the activities and identifying the steps of carrying out the lesson according to the Web Quest Strategy followed by evaluative questions to measure the students' degree of acquisition at every level.
- Preparing a test of the geographical concepts' acquisition and affirming its validity and reliability.
- Selecting the study Individuals from the eighth basic grade students studying at AL- Zarqa the second Directorate of Education, for the academic year 2013-2014.
- Interviews with the eighth basic grade students (the study's individuals) were conducted to clarify the objective of the study, to make them aware of the web quest strategy and its importance in teaching. They were asked about some concepts related to geography, but the researcher found that they had wrong concepts and unclear understanding of them. The steps of the web quest strategy and practical exercises and activities were provided before starting the experiment.
- Applying the pre-test to the Study groups to test their equivalence. And the results revealed the groups' equivalence at the pre -test of acquiring the geographical concepts.
- Implementing the experiment that lasted for two months with a class weekly teaching geographical concepts of the Natural Resources Unit in the book of Geography while the experimental group was taught using Web Quest Strategy.
- The control group was taught the Natural Resources Unit using the traditional Method and this group was taught for two months.
- Applying the post-test geographical concepts' acquisition to the study Individuals directly after finishing the experiment.
- Collecting data and analyzing it and carrying out the necessary statistical treatments.
- Concluding the results, discussing them and presenting a set of recommendations.
- After finishing the experiment application and analyzing the results, the results were introduced to the study's individuals and the Geography teachers to show the improvement in eighth basic grade students of acquiring the geographic concepts at the public schools in al-Zarqa the Second Directorate of Education, confirming the importance of the web quest strategy in acquiring the Geographic concepts by the study's individuals.

Study Variables

First: Independent Variables

- Teaching Strategy and it has two levels (Web Quest Strategy, Traditional method).
- Gender: (male, female).

Second: Dependent Variables

The degree of the students' achievement at the test of acquiring the geographic concepts.

Statistical Treatment

Data was analyzed using the Statistical Package for Social Sciences (SPSS). The means and the standard deviations were calculated and the Two Way ANCOVA was used to control the impact of the differences' on the pre-test.

RESULTS & DISCUSSION

This study has attempted to test the following hypothesis:

- There are no differences with statistical significance at the significance level ($\alpha=0.05$) in the basic eighth grade students' acquisition of the geographic concepts attribute to the method of teaching (Web Quest Strategy and the Traditional Method) and the gender variables and the interaction between them.

To test the hypothesis, the researcher applied the test of acquisition of the geographic concepts to the study Individuals according to the method of teaching and the gender variables. Means and standard deviations of the students' scores were calculated, and table (2) illustrates this.

Table 2: Means and standard deviations of the students' scores on the pre and post test of the student's acquisition of geographical acquisition according the method of teaching and gender variables.

| Group | Gender | No | Pre-test | | Post-test | |
|--------------------|--------|----|----------|-----------|-----------|-----------|
| | | | Mean* | Std. Div. | Mean* | Std. Div. |
| Control Group | Male | 29 | 8.19 | 2.37 | 19.67 | 3.89 |
| | Female | 32 | 8.22 | 2.34 | 20.14 | 3.53 |
| Experimental Group | Male | 27 | 8.24 | 2.24 | 27.81 | 2.52 |
| | Female | 31 | 8.16 | 2.38 | 28.09 | 2.36 |

Mean* - maximum degree of 30

Table (2) showed apparent variance between the means of the eighth grade students' scores at the test of the geographic concept's acquisition in the pre and post tests according to the method of teaching and to gender. Figure (1) shows that.

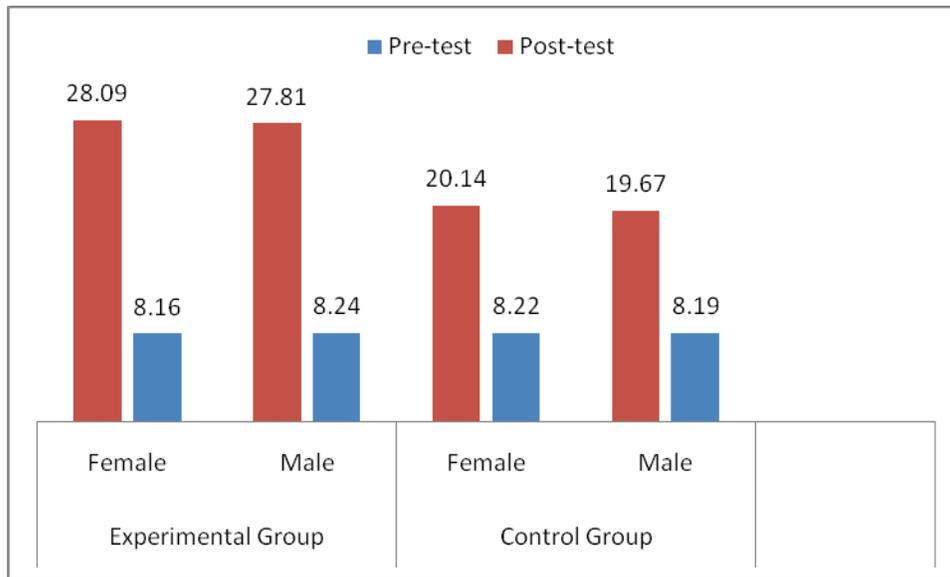


Figure (1): Means of the students' scores on the pre and post test of the student's acquisition of geographical acquisition according the method of teaching and gender variables.

Figure (1) shows the means of the females and males in experimental and control groups as follows:

- The pre-mean of the meals performance in the control group was (8.19). While for the females in the same group was (8.22).The post mean of the males performance in the control group was (19.67) and for the females in the same group was (20.14).
- The pre-mean of the performance of the meals in the experimental group was (8.24) and for the females in the same group was (8.16).While the post-mean of the performance of the males in the experimental group reached (27.81) and (28.09) for the females in the same group.

And to know the significance of the statistical differences between the means, Two Way ANCOVA was used, and Table (3) illustrates this.

Table (3) shows that there are differences with statistical significance at the significance level ($\alpha = 0.05$) between the means of the eighth grade students' scores on the test of geographic concepts' acquisition attribute to the method of teaching variable, F-value reached (6.408) referring to these means in table (2).

We notice that the differences were in favor of the individuals performance in the experimental group. The researcher attributes these differences in acquiring the geographic concepts to the social cooperative atmosphere inside the classroom. Considering the student as the axis of the educational process and exchanging ideas and opinions among the groups during teaching created an effective educational atmosphere. The researcher also noticed during the application of Web Quest Strategy the students' participation to reach solutions to the given activities as their degree of harmony has increased with their groups to get a turn in answering which reflected on their understanding and the acquisition of the geographic concepts included in the course.

Table 3: results of Two Way ANCOVA for the differences between the means of the eighth grade students' scores on the pre and post test of the geographic concepts' acquisition according to the method of teaching and the gender variables.

| Source of Variances | Sum Squares | DF | Mean Squares | F-Value | Sig. |
|---------------------|-------------|-----|--------------|---------|--------|
| Pre-test | 25.824 | 1 | 25.824 | 5.636 | 0.001* |
| Method | 29.361 | 1 | 29.361 | 6.408 | 0.001* |
| Gender | 5.027 | 1 | 5.027 | 1.097 | 0.492 |
| Method*Gender | 4.294 | 1 | 4.294 | 0.937 | 0.525 |
| Error | 522.348 | 114 | 4.582 | | |
| Total | 586.854 | 118 | | | |

Sig* - ($\alpha = 0.05$)

The Web Quest Strategy encourages self-learning, takes into account the individual differences between the students and creates more effective learning environment than the traditional method. Additionally, it leaves a space for thinking, searching and enquiring which made the learner the center of the learning process instead of the teacher as it is in the traditional method. Therefore, this made the differences in acquiring the geographic concepts between the members of the experimental and control groups. And this result is compatible with the results of the studies by (Brunton,2005;Michelle & Eula 2005).

Also, Table (3) shows:

- There are no differences with statistical significance at the significance level ($\alpha = 0.05$) between the means of the eighth grade students' test scores on acquiring the geographic concepts attributed to the gender variable. F- Value reached (1.097) at significance level (0.492).
- There are no differences with statistical significance at the significance level ($\alpha = 0.05$) between the means of the eighth grade students' test scores on acquiring the geographic concepts attribute to the interaction between the method of teaching and gender. F- Value reached (0.937) at significance level (0.525).

The researcher attributes this result to the similarity of the circumstances of the educational environment which the male and female students were exposed to, the similarity of the available technological capabilities regardless of the type of the school, whether a males or a females school, or this result may be attributes to the nature of Web Quest Strategy that provided the students with a space to search and enquiry about geographical issues according to a cognitive plan provided to them with specific electronic websites regardless the teacher's gender. Additionally, Web Quest Strategy agrees with the students' interests in using the modern technology especially Internet. Since the students spend very long time using Internet for different purposes, as enjoyment, entertainment, and play regardless of their gender male or female.

RECOMMENDATIONS

The study results showed the effectiveness of the Web Quest Strategy, so the researcher recommends the following:

- Using the Web Quest Strategy in teaching the Natural Resources Unit in Geography subject and not only depending on the Traditional Method to enable the eighth grade students acquire the geographic concepts and to improve their level of achievement.
- Drawing the attention of the Jordanian Ministry of Education to the importance of training the Geography teachers in Jordan on employing the web quest strategy in teaching the Geography topics.
- Directing the attention of the curricula designers to the web quest strategy in acquiring the Geography concepts to benefit from in the field planning and building the curricula.
- Establishing a special unit in the Ministry of Education in Jordan that takes care of the production of the studying units in the Geography subject according to web quest strategy.
- Using the technology in teaching geography subject with the focus on teaching strategies that tackles students' activities and provide self-learning experiences in the geography subject.
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SUGGESTIONS FOR THE FUTURE RESEARCH

Based on the results that have been reached, the researcher recommending the following:

- Conducting more studies relating to the web quest strategy with new variables, such as the critical and creative thinking skills and motivation.
- Conducting a study that includes larger sample for applying the web quest strategy from the different geographic regions in Jordan.
- Conducting more studies relating to the web quest strategy at different studying stages such as the secondary and the lower basic stage.
- Applying the web quest strategy to the other humanities and social sciences branches, such as history and national education.

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