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DETERMINATION THE POSSIBILITY OF USING INSTRUCTIONAL MATERIALS BY GEOGRAPHY TEACHERS IN ERBIL SCHOOLS

MASTER THESIS

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Determination the Possibility of Using Instructional Materials by Geography Teachers in Erbil Schools

Master Thesis

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Graduate School of Education Sciences Directorate,

This study by our jury at the Department of Educational Programs and Instruction has been recognized as a MASTER THESIS.

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Sarwah Mohammed Shareef

ABSTRACT

DETERMINATION THE POSSIBILITY OF USING INSTRUCTIONAL MATERIALS BY GEOGRAPHY TEACHERS IN ERBIL SCHOOLS

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July, 2014

Instructional materials are very important element for scaffolding the educational process. Nowadays understanding how to improve and use it efficiently are more significant than ever. Therefore, this study sheds light on the possibility of using learning aids and materials in basic schools in the geography subject area. It addresses to examine the ability of teachers in using new technology and utilizing educational materials in their teaching process. Furthermore, the research aims to find out the availability and adequacy of instructional materials in schools' classrooms.

This quantitative research was conducted with the participation of geography instructors in the Erbil basic schools of Kurdistan Region-Iraq. Additionally, in order to collect and evaluate the required data a survey questionnaire which consisted of two parts involved 14 items was used and 121 teachers were selected to participate in this study. Moreover, in order to calculate the percentages, frequencies, and chi-square test, SPSS program version 20 was used and the quantitative data was analysed descriptively.

The results of the present study showed that majority of the respondents are facing problems and obstacles in relation to accessibility to Instructional materials resources, lack of training courses or in-service training opportunities and various administrative and technical problems still need to be solved. On the other hand, the study revealed differences between teachers' perceptions on using instructional materials according to their gender, year of experiences. Moreover, the study discovered that geography teachers had faced lack of Instructional materials in their classrooms due to unavailability of these supporting materials and devices.

Key Words: Instructional materials, technology, geography lesson, teachers' skills and basic schools.

ÖZET

ERBIL OKULLARINDA GÖREV YAPAN COĞRAFYA ÖĞRETMENLERININ ÖĞRETIM MATERYALLERINI KULLANIM OLASILIKLARININ SAPTANMASI

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Günümüzde öğretim materyalleri eğitim süreci için çok önemli unsure olup, bu materyalleri etkili bir biçimde kullanmanın ve geliştirmenin önemi ise her geçen gün artmaktadır. Bu çalışma, Erbil'de görev yapan öğretmenlerin coğrafya öğretiminde faydalandıkları materyallere ışık tutmayı amaçlamaktadır. Bunun yanında, gerçekleştirilen bu çalışma ile coğrafya öğretmenlerinin, öğretim süreçlerinde yeni eğitim teknolojilerini ve materyalleri kullanma becerilerini de incelemeyi hedeflemektedir. Ayrıca, incelenen bölgedeki devlet okullarında materyallerin kullanılabilirliği ve yeterliliği de incelenecektir.

Bu nicel bir çalışma olup, Irak'ın Kürdistan bölgesindeki Erbil devlet okullarında çalışan coğrafya öğretmenleri ile sınırlandırılmıştır. Veri toplama amacı iki bölümden oluşmakta olup, birinci bölümde öğretmenlerin demografik özellikleri belirlenirken, anketin ikinci bölümünde ise coğrafya öğretmenlerinin öğretim materyallerini kullanma olasılıklarını belirlemeye yönelik ifadeler yer almaktadır. Anket, 121 coğrafya öğretmeni tarafından doldurulmuş, yüzdelik, sıklık ve ki- kare analizi hesaplamaları için SPPS 20 programı kullanılmıştır.

Bu çalışmadan elde edilen sonuçlara göre öğretmenlerin büyük bir çoğunluğunun öğretim materyallerine ulaşamadığı sonucuna ulaşılmıştır. Ayrıca çalışmadan elde edilen sonuçlara göre, öğretmenlerin öğretim materyallerini kullanma durumları, cinsiyetlerine ve mesleki tecrübelerine göre de farklılık göstermektedir.

Anahtar Sözcükler: Öğretim materyalleri, Teknoloji, Coğrafya dersi, Öğretmen becerileri, Devlet okulları

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CHAPTER I

INTRODUCTION

Presentation

In the last ten years, developments in educational technology and digital learning resources as instructional materials have made significant effects on educational field. In particular, the use of new Instructional materials in assisting learning and teaching has become a new educational matter for many researchers, educators and instructors. They are also largely guided to adopt new technology to improve their teaching process (Lawless & Pellegrino, 2007; Welch & Dooley, 2013). Moreover, the rapid development of technology and Instructional materials has become a challenge for teachers who don't have enough information about new technology, so the governments must train teachers on how to use the new educational methods and materials and keep up with technological development (Hsu, et al. 2012). To begin, this chapter includes the background of the study, the problem of the study, the aim of the study, the significance of the study, and the limitations.

Background of the Study

Nowadays, modern ways, methods and instructional materials to teach social studies have become very interesting and important issues, especially the geography subject because at the beginning of the third millennium, human societies have witnessed rapid changes in communications and information technology. The development of technology provided an opportunity to human beings for dealing with geographical phenomena and employing them to serve the community all over the world. This made the associated information an indispensable requirement for human life and their thinking in the world (Adekunle, 1991; Bahrani & Sim, 2013). On the other hand, using instructional materials and keeping up with technological advances in teaching process have become very interested subject because

technology has been an important part of the education situation. In the past, fieldtrips were used to develop geographical information in many institutions or schools but nowadays by new technology and new instructional materials teachers can bring geographical information inside the class for the same purpose (Kerawallaa, Littletona & Scanlonb, 2012).

According to many researches and studies, the development of communication, information technology and improvement of new instructional materials directly or indirectly affected the teaching and learning pedagogy curriculum. The researchers, scientists and teachers have consequently tried to find suitable and beneficial methods for transferring knowledge to learners by using modern educational tools, devices and materials. However, they have offered possible ways to support classroom learning through using new learning aids in order to decrease the obstacles that become factors for advancement in teaching and learning processes (Robert, 2003; Alhomod & Shafi, 2013).

When researchers talk about technology in education process, the word instructional materials are often used because in many recent articles education technology was defined as synonymous of audio-visual instruction. And the most important issue is how to integrate technology in teaching and learning field. Therefore, multiple teaching aids and techniques that teachers have used in the fields of education should serve the process (Luppicini, 2005). On the other hand, numbers of earlier studies in the field of education have shown that a suitable usage of new technology can increase learning quality and relate education process to real life. Nyambane (2014) believes that mixing technology with education is expected to be inter-curricular rather than studied in separate course like computer schools' subject. New technology and new educational materials should be used as a supplement tools to assist educational objectives like abilities in searching and evaluating facts, assistances, communications, discussions and educational problem solving which are very essential for preparing well-informed students. Therefore, every single schoolroom teacher should use instructional materials and new learning technologies to improve his/her students' learning

in every subject because it can encourage students to think, deduce and solve problems.

The enormous development in the processes of learning happened at the end of the twentieth century, especially in the field of educational technology, which has a significant impact on various methods of teaching. These methods enabled teachers in growing range of choice in the application of new discoveries in educational technology. Therefore, the students can learn through different teaching methods with different teaching-learning aids and materials even by using traditional methods (Osin, 1998; Alhomod & Shafi, 2013).

According to Bowen and Bradley (2013), from the perspective of modernity, teaching is not just a process of transferring information, but it is also a planned activity aims at achieving desirable educational outcomes among students. That is, the students should be the centre in the classrooms not the teachers. It also means that teachers' role, according to this modern view of the teaching process, will not only deliver information. Yet, students' role also cannot be limited in memorizing this information for uttering it. So those who are interested in teaching geography have tried to find modern strategies, methods, new technology and materials of teaching, which are relevant to the scientific development of geographic information and recent developments (Ali, 2002).

In spite of the fact that using instructional materials help students to understand the knowledge of the lesson better, it can add audio-visual aids as supportive tools for learning. But training teachers in how to use educational tools are more important than providing these digital learning resources. The way they teach students to learn via multimedia resources are not less important because when learners interact with the audio-visual aid information, they encode this data into their working memory or long-term memory and he/she cannot forget it easily (Mayer, 2008 & Amorim, et al. 2011).

Alsobha and Benger (1997); Hamp-Lyons (2012) state that, the modern methods of teaching and modern aids and materials always do not

rely on quality and quantity rather than suitability for educational attitudes and impacts on students' learning. Instructional materials provide strong shared group experience and connected the textbooks with the real life, because one of the most important components of teaching approach is the use of supporting materials and tools.

In addition, the utilization of instructional materials in the classrooms is an essential element of instructional courseware strategy to provide interactive learning environments for learners. Traditionally teachers were using only textbooks as educational materials to transfer information to their students without audio-visual supporting materials and tools. For this reason the teaching process was limited only to memorize information without understanding (Lawless & Pellegrino, 2007).

Traditionally, Teaching-learning process was depends on attending classrooms, studying textbooks, listening to teachers and good performing in the lesson examinations that is means teacher-centered classrooms (Alhomod & Shafi, 2013). But depending to new educational approaches by using new technology teachers can teach better, students can learn better and teaching process can move to learner-centered classrooms (Varol, 2013). According to Hew and Brush (2007); Bhalla (2012) there are many obstacles which limited using of new technology and instructional materials and aids in schools and these barriers are different in time and place. They summarized these obstacles into six main groups including lack of resource, teachers' ability and skills in using technology, administrative support, subject type, attitudes and beliefs' of teachers and student assessment. But in many countries some of these barriers or obstacles are overcome like resource access and administrative support. Otherwise, teachers' knowledge and skills in using educational materials and tools still considered as large obstacles to the development of educational process. This is due to the limited time of training and learning for new digital technology tools and aids that teachers can use in their teaching and learning procedure.

Like other schools' subjects geography lesson has special instructional materials and aids and tools which are used for supporting and transferring information to the learner in the easiest way (Gecit, 2010). Furthermore, the

success of adapting new technology and utilization of instructional materials vary from subject to subject, depending on the methods of using and applying. It also depends on the school equipment and supplication with new tools and devices. Teachers cannot do their work as instructors properly without supporting. The delay in providing new technology for schools' classrooms will lead to poor teaching and poor performance by learners in public exams (Mudulia, 2012).

Several investigators pointed out that effective learning and teaching of any lessons' subject depends on the teaching-learning methods, and all learners absorb better where many instruction methods were used by teachers. Ozdilek and Ozkan (2009) reported that using various learning strategies aids, tools and methods during teaching increase the mental learning and cognitive thinking of pupils with different education styles. Furthermore, using multiple strategies and methods provide educators with flexibility, and improve activities to be suitable for different teaching- learning styles.

Sezer (2010) mentions that, nowadays connecting geography information with the new technology like internet is very important for geographic teachers. Because according to Aljabr (1991) and Gecit (2010) geography occupies of an excellence canter between school curriculum materials in any educational stage to play a role in achieving the educational goals for the curriculum, so that it is an interesting material in the study and in the process their subject and relate directly to the environment experienced by the student. Also the importance of geography as a school subject cannot be overemphasized or neglect it (Artvinli, 2010). So the investigation study of geography for the student to these goals depends on many factors, such as curriculums, teachers, teaching aids, materials, way of teaching and other factors. The method of teaching and using instructional materials are most effective and important factors for achieving educational goals. Because they are able to fill what may arises from gaps in the curriculum or book or even the teacher (Sarah, 2004 & Sezer, 2010).

Then, Jaml (2001) and Balci (2012) confirm that, the purpose of teaching geography is not just to provide students as much as possible of the

information and facts about the home and the outside world, but is intended more importantly in the statement of student's relationship with his surroundings and natural statement impact of natural factors in human life on the one hand and their impact on the environment through the exploitation of natural phenomena and harnessed to the service of student and progress societies, geography is a science that combines the natural spheres cannot be considered human note naturally freestanding or note purely humanitarian.

Regarding this, Baldwin and Papprill (2006); Artvinli, (2010) state that, changing the geography syllabus is possible, by combination of student and subject attention, to plan sequences that are flexible and approachable to students' requirements. Also by combination the subject with suitable instructional materials as a successful stride. Moreover, nowadays learners are more interested to learn about new technology than teachers, because these younger generations are up to data with the new technology and they have digital imagination if compared with the old generation. And this gap will make some problem for the teachers to adapt new technology in the classrooms' teaching. For this reason training courses are appropriate solution for these problems.

On the other hand, Alkarab and Abdulrahman (2004) state that, the teaching method is one of the most successful elements in educational curriculum as it achieves the goals, and is determined by the role of the teachers and the learners in the teaching situation, but without suitable instructional materials these goals cannot achieved. Accordingly Umer and Siddiqui (2013), state that the good method of teaching acts to raise the attention of students and lead them to learn better and share the information with the teacher. In fact, lesson subjects are not interesting, but teachers and educators can make the subject enjoyable by using various teaching-learning methods that supporting the lessons' goal. Moreover, Teaching-learning methods that used in the classrooms have essential role in learning process and creating well-informed and skilled learners. Through this way and aids, one can achieve the objectives of the educational process by less effort and better levels. It seems that educational materials and modern technology are

not probably used by geographic teachers in the basic schools, for this reason the current study tried to determine the possibilities of using instructional materials by geography teachers and their opinion toward using instructional materials in their schools' classroom.

Aim of the Study

The aim of the research study was to indicate geographic teachers' opinion about possibility of using instructional materials in teaching process. In order to reach this purpose, the following questions were asked as a part of the research:

1. What is the possibility of using instructional materials by geographic educators, during giving lesson in the classrooms?
2. Are there any significant differences between gender qualities (male/female teachers) through the using instructional materials?
3. Are years of teaching experience making any significance differences in using instructional materials?

Significance of the Study

The importance of the study was to find out the benefits of using instructional materials and modern educational technology in teaching geography especially in the basic schools. The study also sheds more light on the benefits of using various types of teaching aids, the importance and advantages of teaching training courses for teachers and it suggests that using new educational technology should be a part of teaching process.

4. Through informing governmental institutions related to education we can aware them of the importance of this study and make them apply it in schools and allocate financial support to provide teaching-learning aids and materials for all schools.
5. The Ministry of education can integrate new instructional materials and apply the result of this study in some schools to notice how the study affect and then apply to other schools.
1. It may help General Directorate of Education in Erbil to equip schools by new multimedia aids because the utilization of instructional

materials in schools' classrooms can help teachers in teaching students at the other advanced stages since students can be well-prepared for the advanced stages. It also saves time and energy.

2. It helps the specialists in the field of education, the supervisors and expert teachers to find suitable solutions for using instructional tools, and find alternatives way that limit the obstacles, and work to improve the technology adaption ability in teaching process.
3. In the same time, the specialists in the field of methodology and pedagogy in the Ministry of Planning assess plan and find solutions to improve and provide modern educational means and educational materials for all schools.
4. On the other hand, this study may enable those who are in charge of developing curriculum in the Ministry of education to think of a concrete plan in order to develop the current curriculum, and find suitable teaching strategies and instructional materials for geographic subject.

Limitation

The limitation of the study has been mentioned in the following points:

5. In terms of scope; the participants are limited to geographic teachers only in basic schools grades seventh, eighth and ninth only in the city of Erbil, KRG-Iraq.
6. In terms of method; a descriptive study was used.
7. In terms of data sources; this study is limited to collecting data only in the schools affiliated to Ministry of Education- Kurdistan Region government (MOE-KRG).
8. The practical part of this study has been carried out in the second semester (spring semester) of the year 2013/2014 on the teachers of geography.
9. Salim Alkindys' questionnaire was used to determine the possibility of using instructional materials by geography teachers in the basic schools.

Definitions

Instructional materials: all devices, kits, materials and tools which have been used by the teacher and students inside or outside the classroom.

Geography lesson: is that study which describes and explains human life, human activity effects, the inhabitants, physical characteristics mainly the surface features and the phenomena of the earth.

Geography teachers: those teachers which specialized in teaching geography lesson in the schools especially, grad seven, eight and nine in basic schools.

Basic schools: are schools which start from six years of age up to 15 years of age. They are composed of nine levels.

ABBREVIATIONS

DVD	:	Digital Versatile Disc
FQ	:	Friquency
GIS	:	Geography information system
ICT	:	Information and Communication Technology
IM	:	Instructional Materials
IT	:	Information Technology
KRG	:	Kurdistan region Government
OHP	:	Overhead Projector
PPT	:	Power Point
PR	:	Percentages
SPSS	:	Statistical Package of Social Sciences Percentages
TV	:	Televesion

CHAPTER II

THEORETICAL BASIS OF THE RESEARCH AND LITERATURE REVIEW

2.1. Theoretical Basis of the Research

The theoretical basis of the research consists of several parts; first part shows overviewing definition of instructional materials as well as their taxonomic. The next section deals with benefits of using instructional materials and their selection. It also presents challenges and barriers of using instructional materials, and then other sections are devoted to educational goals of teaching geography, utilization of the instructional materials in geography lesson and the most common educational means that were used in teaching geography.

2.1.1. Definitions of Instructional Materials

The use of Instructional materials or teaching aids belongs to ancient Greece, for example they used globe as an educational tool in 150 B.C. Another type of teaching aid was hornbook which was used in classrooms in the mid-1400's. The hornbook was made from wood, leather and some animal bones. And later chalkboard was invented by Samuel Read Hall in 1923 and replaced the use of hornbook in classrooms (Karpf, 2012)

Students have different ways of receiving knowledge and learning. Contributions of different senses help learners assimilate in a better way, the information can be received visually, auditory or audio-visually (Franzoni, & Assar, 2009). Currently, societies live in a different world comparing with past. More or less everything is different now such as: new type of instruments and technology that are used by students, new style of learning, adaption of technology in teaching curriculum, smart phones and tablets, and new types of games. Nowadays, the world is really technology driven (Arnold & Blessie, 2013). Furthermore, learning styles of student are significant factor for developing teaching process; it is defined in many studies as the process that the students use to analysis knowledge and information that received in

their teaching procedure. According to psychological researchers and overall published researches and papers, the learner's style was divided into three types: audio, visual and kinaesthetic. To deal with these three types of learning all teachers should use new teaching materials and new educational aids for supporting teaching process, also to transfer the knowledge in active way and effective strategies. Currently, the use of multimedia in learning program is becoming more common in many countries and many fields like science, social study and mathematic subject as new learning and teaching ways for delivering information to deal with different learning styles, but this integrating is not just limited to offering new devices or tools for schoolrooms or changing teaching-learning methods. However, it is challenging all teachers to learn how to use it and how to produce a good lesson plans (Leow & Neo, 2014). So what are teaching-learning aids?

Starting with Romiszowski (1968) definition, instructional materials or teaching aids are defined as constructed objects or tools which represent reality. That's means using real samples to develop concepts instead of reading many sentences to describe and define a particular topic. Moreover, there are many scientific terms are used to describe teaching-learning aids for example multimedia materials, which are defined as materials presented visually and verbally or tools are used to obtain learning process through words and pictures (Yilmaz-Soylu & Akkoyunlu, 2009). Regarding to Alhashimy, (1991) and many published articles and researches the term of "teaching aids" are used to summarize learning, teaching and instructional aids. While the instructional aid are used by teachers, students use learning aids as useful tools during the lessons or outside schools for supporting education process. On the other hand, we should not forget that same teaching aid can be used as learning and an instructional aid such as whiteboards or chalkboard.

Over and above, with the development of technology, different types of teaching aids, methods and new techniques are come into the education fields. Then, a teacher has used various kinds of tools and aids to make teaching more effective. Teaching-learning aids and new techniques help the educators to clarify the ideas straightforwardly and arouse the attention of

students. Certainly, audio-visual aids are those educational aids which are used and integrated in the schoolrooms to encourage teaching-learning methods. Consequently, any tools, techniques and devices increase the learners' experience by involving sight and hear senses considered to be audio visual aids. Teaching-learning aids are those educational devices which are used in the teaching fields to make learning process easier and encourage it and make it more interested. For example, materials such as charts, projectors, maps, televisions, tapes, models, film strips and radios called educational aids and materials (Rasul, Bukhsh & Batoolc, 2011).

As argued before, the term multimedia is related to teaching materials and aids. Leow and Neo (2014) state that multimedia is that techniques which has presented the pedagogical power in making students' learning more easier, and enhancing learning process and it adds fruitfulness and meaning to the gained knowledge and information more than using one type of teaching aids. Moreover, according to Leung (2010) Multimedia is an educational technique that used for creating effective activities, presenting information and controlling communication of information by various ways which involves visual media (visual technologies), audio media (audio compression techniques) and audio-visual media (motion pictures and animation techniques). In addition, when multiple media or all types of instructional materials are used together for delivering information during lesson time, learners can learn better and effectively with more attention than students participate in the other lesson which separate media or one type of instructional materials (Leow & Neo, 2014).

Adekunle (1991) and Saglam (2011) state that all resources, tools and materials used for developing and increasing the preferred knowledge, information, skills, ability, attitudes and values of learners are considered teaching aids or teaching materials. Moreover, physical tools which are used to transfer information to the learner in the classroom are called teaching aids. In contrast instructional materials are not enough to convey information, but it must be supported by successful teaching strategies. Furthermore, especially in social science educational materials are very important tools which are used by teachers and students in transmitting and gaining

knowledge, such as printed resources like textbooks, charts, maps, pictures, photographs and non-printed environmental materials like three dimensional models, real objects, audio-visual aids. Betul, Nina and Jerry (2004) point out that all devices, materials and tools which have been used by the teacher inside or outside the classroom are called educational aids. In terms of transferring specific educational experiences to the learner through easy way, clear information and economic methods. It is becoming difficult to find comprehensive definition of teaching aids or instructional materials due to the differences in determining the importance and roles of educational aids in the process of education, as well as differences in the importance of the organ senses in humans.

On the other hand, Hassan (2001) defines instructional materials in his book "Fundamentals of educational methods and technology" as a set of attitudes, educational materials, devices and the people who are employed within the strategy of teaching procedures in order to facilitate the teaching and learning process required for achieving educational objectives with suitable educational methods. This definition is considered as a comprehensive definition, because it believes that the learning tool can go beyond being an illustrative tool than just being a comprehensive and general tool, such as attitudes or experiences or people who are the owners of a certain expertise.

Furthermore, Minori (2011) states that in many developed countries like Japan all primary and secondary schools are equipped with new educational aids and materials like computers and overhead projector, therefore many digital teaching aids have been developed in the purpose of active teaching process. And many instructors introduce them into their classrooms. Such materials or tools are designed to support the information inside textbooks. Therefore instructors can easily use these devises as educational materials. It has been suggested by many researchers that audio-visual thinking will become more and more important in schools. Therefore, teaching for increasing such aids will become very meaningful. But audio-visual thinking skills are wanted in many educational fields, like mathematics, natural science and geography, and it is inflexible to teach

audio-visual thinking itself separately from the textbooks contents in the classrooms.

The lack of teaching devices and materials, the lack of its diversity in school often results in not having the use of a particular method. When the teacher fails to find an educational film, real samples, three-dimensional models and maps he finds himself obliged to follow other ways which do not meet the needs. In fact, using instructional technologies or new teaching aids in the field of teaching has been broadly debated with improvement of new teaching methods and technologies (Acikalin, 2014). On the contrary being provided with instructional materials the teacher will show it, comment on it and discuss its content and its relationship with the text of the lesson. It could be argued that the lack of means and instructional materials in the school leads to disrupt of teachers' efforts, while the availability of means and its diversity in the school give him an opportunity to use it and get benefit from it in teaching and learning process (Alameen, 2005).

As a results of above definitions, selecting instructional materials or educational technology with suitable teaching methods is one of the most significant factors that should be taken in to consideration. Furthermore, the importance of teaching methods is not less than importance of teaching aids, because teaching methods are effective procedures and important in the educational process which play an essential role in organizing classroom and in explaining the lesson.

Based on many papers and published articles the researcher found the following definitions about the concept of teaching method and its relation with teaching aids. According to Fidelia (2012), method of teaching is a system being followed by the teacher to convey knowledge and information from the text book to the minds of the students by simplified way and good technique like new educational materials, tools and devices with most easily, most direct route and lowest cost. Although it is a set of events that a teacher or student booster at the best educational factors, means and materials for the purpose of learning, and learning here is intended to the change that is happening in the student's behaviour as a result of the acquisition of certain learning experiences. As argued by Catherine (1999), the educational

methods are series of actions performed by teachers and learners via using proper instructional materials to identify the results and evaluation. Also Alsobha and Benger (1997), observe that method of teaching is a comprehensive plan for the implementation of part or parts of the educational content in the course of learners, including behavioural objectives and identifying of specific actions for each objective or activities carried by teachers and learners. As well as the means that help activate the procedures and activities in achieving the educational goals therefore adapting these tools and aids in teaching process are very important for achieving pedagogical goals.

Likewise, method of teaching is a set of activities and procedures that look raised on what students are learning by using instructional materials (Michael & Richard, 2006), and usually includes many activities. Also many procedures such as reading, discussion, recitations, observation, guidance, repetition, interpretation, reading silent-aloud, use of boards, teaching aids, materials and tools (Alameen, 2005). Through the above, method of teaching is a pattern of education or teaching in general, or a range of activities and actions by the organization of the teacher during classroom learning in order to simplify the educational material presented to students with the help of instructional materials and means occurred in student interaction with the teacher, which leads to the achievement of the desired goals. And that is a clear evidence for having relationship between educational methods and teaching aids. Also, it can be said that the educators, curriculum developers and decision makers at this stage are in need of the familiarity with these instructional materials and their development by means of appropriate activities and courses. Consequently, the teachers treat students on the basis of scientific thoughts and deliver the knowledge through using appropriate means (Lutz & Huitt, 2004). The rapid change and development in technology and new educational methods means that it is essential for educators to be familiar with the new methods and latest technology as a tool for improving their own educational skills. Additionally, educators must use new teaching methods by adapting the lesson subject with new teaching aids and new instructive materials (Hramiak & Boulton, 2013).

2.1.2. Classification of Instructional Materials

In recent years, many published and unpublished researches classified instructional materials according to senses and experiences because of two purposes. The first purpose is that instructional materials has a direct relationship with the senses like hearing and eyesight, the second reason is due to having relationship between multimodal learning and human experiences.

Classification of Instructional Materials According Senses

Experts classified teaching aids or instructional materials into four major categories, audio aids, visual aids, audio-visual aids and interactive or multi-Sensory aids (Sambasiva & Vijaya, 2012).

1. Visual Aids

According to Vaino and Mantas (2012), in general most teaching-learning aids are visual. Whiteboards, chalkboards, slideshow, figures, data show, maps, atlas, photographs, calendars, graphs, illustrations and diagrams are some examples of visual teaching aids. They are very important because many students learn best by using of visual or special thinking. Making lessons more interesting by integrating visual aids are not difficult because if the instructor does not have access to reach visual aids like television or slideshow in his/her classroom, they can draw pictures by him/herself or by students to add visual characters to their classrooms lesson. Then, using visual learning aids is not limited by economic problems or barrier.

The use of visual aids is one of the most important strategies in teaching many subjects, visual data and information are more efficient and effective for teaching than information or data that is presented verbally in the textbooks. Some learners may require extra time to understand lesson or some activities (Paul & Gordon, 1962; Hedda, et al. 2011).

On the other hand, some students faced many problems in learning process especially in language field. The obstacles of these students can be overcoming through visual images or visual aids which they can support learning. They can used as a replacement tools to generate information and

ideas based on students' prior knowledge. The utilization of five senses like sight, hearing, taste, smell and touch may also help students to learn better. Visual aids and materials can assist learners to think better with clear information and ideas and they can provide positive thinking and sense of direction. In addition, visual aids can be used to assist students' writing ability (Nor, et al. 2012).

Visuals are generally used to:

- Improve communication
- Supplement information
- Support routines
- Clarify skills
- Avoid problems
- Provide familiar response (Hedda, et al. 2011)

2. Audio Aids

Audio aids are set of tools that involve the hearing sense for teaching process. For example, radio, CD player, tape recorder, gramophone etc. Auditory students focus more on the verbal-verbal word and sound effects rather than printed text information. Taped recordings of lesson activity or movies are more supportive to auditory students in the classroom because the information will stay longer in the human memory. Sound recording devices adapt with computer will also help students process and understand information better than just writing and reading from texts (Kishore & Jadal 2011).

Furthermore, each discussion spoken by the instructor in an educational process considered to be a type of audio instruction (Mishra & Yadav, 2014). These audio supports consist of songs and spoken broadcast recordings. Next type is audio-visual teaching aids were once seen as a technique for learners to teach themselves. Audio aids tend to be manageable to learners and teachers in many schools due to existing many audio resource and its low cost. For example, radio programs are beneficial multimedia aids for foreign language at all school levels and radio programs

are accessible in many countries such as BBC English programs, which allow students to find lessons and listen to English courses for free. Broadcasting and news channels are another low cost audio aid for public and school use. These types of instructional tools are very important because all teachers and students have access to use them (Rahman & Panda, 2012).

3. Audio-Visuals Aids

The aids which involve the sense of vision and hearing together in the same time are called audio-visual aids. Like, computers, laptops, television, film, DVDs, overhead projector, video cassettes, and movie strips etc. They are usually accepted and used in many schools, which have audio-visual laboratory or room. The teaching-learning process has become very attractive for the teachers and students with using audio-visuals aids. The learners will become more open minds when they move to the audio-visual rooms, because it helps students learn with supporting tools and aids. At the same time it encourages students who like team work for such project or activity based on learning procedure. Nowadays these types of aids gained much attractiveness (William, 1956; Sambasiva & Vijaya, 2012).

Likewise, using of audio-visual methods and techniques in the classrooms is becoming increasingly important and this type of aids will become a part of teaching process and teaching pedagogy in the coming years. But some time the use of educational materials is neglected and lesson plans on the use of the media are not consistent with the objectives of the program (Akram & Malik, 2012). Nowadays, they are considered to be instructive tools rather than a replacement for instructors.

Audio-visual aids basically mean a supplementary tool or device for making educational knowledge more real and more effective. Schools that are provided with audio visual instructions usually offer clearer vision which lead to super understanding ability, adaptability in school and life, self-confidence and more democratic classrooms (Sert, 2009). Moreover, some teachers believe that audio-visual aids are replacing teachers' role. But they are not working without teachers and supporting book materials in the field of

learning and teaching to replace anything like books, teachers and school's role. Audio-visual aids can be used only when the teachers are existent, and the students have this ability to understand through these devices and when they join with useful techniques. They are good for teaching system because they make good learning experience. They are significant because they make effective skills that are used for the further learning stages (Mishra & Yadav, 2014).

According to Rasul, Bukhsh and Batoolc (2011) audio-visual aids are electronic and non-electronic equipment present information that are done with both of auditory and visually stimuli to help teaching and learning process. They realise the facts to be presented clearer and help teachers and students in making learning skills properly and more vital. They work as supporting materials with textbooks and teachers. The basis of education process involves transferring information to the learner by clearly way by involving all organ senses to this process.

4. Interactive or Multi-Sensory Aids

According to Jenny, Catherine and Robert (2008), multisensory teaching technique and aids are means helping a student to learn and understand information through more than one organ sense. Most teaching-learning techniques and activities are done using either sight or hearing senses, without using sense of touch (manipulative materials). Reys (1971) and Noureddinne (2013) define manipulative materials as some tools, objects and substances that the learners can touch, feel and handle. Moreover, anything that learners can move physically and mentally in order to discover or realize his/her knowledge.

Moreover, Noureddinne (2013) suggests that using multisensory aids are very good solutions for that trainers or teachers which face problems in using different learning-teaching styles, because it is a combination of textbooks, video or movies, sound, graphic animation and mentally tools. All types of instructional materials help students to learn better.

On the other hand, drama or theatre is considered as interactive aids which support teaching-learning process, especially in the field of language

and social study. Drama or acting techniques have been broadly applied in several different educational fields in many countries. The usefulness of performing drama activity or theatre as supporting means for teaching and encouraging students in learning by taking advantage of students' emotional sense. This has been divided into two functions such as: teaching function, when actors or students create a drama about specific social problems or phenomena which are related to his/her lesson allows other students to identify and understand lesson topic or maybe it will help audiences or students to change his/her point view. The second is performing function; participants of the performing activity or drama are actors themselves by studying his/her role in the theatre and they use drama techniques to act in the theatre that allows these students ability of non-forgetting subjects' information and knowledge (Costa, Faccio, Belloni & Iudici, 2014).

Classification According Experiences (Edgar Dale cone)

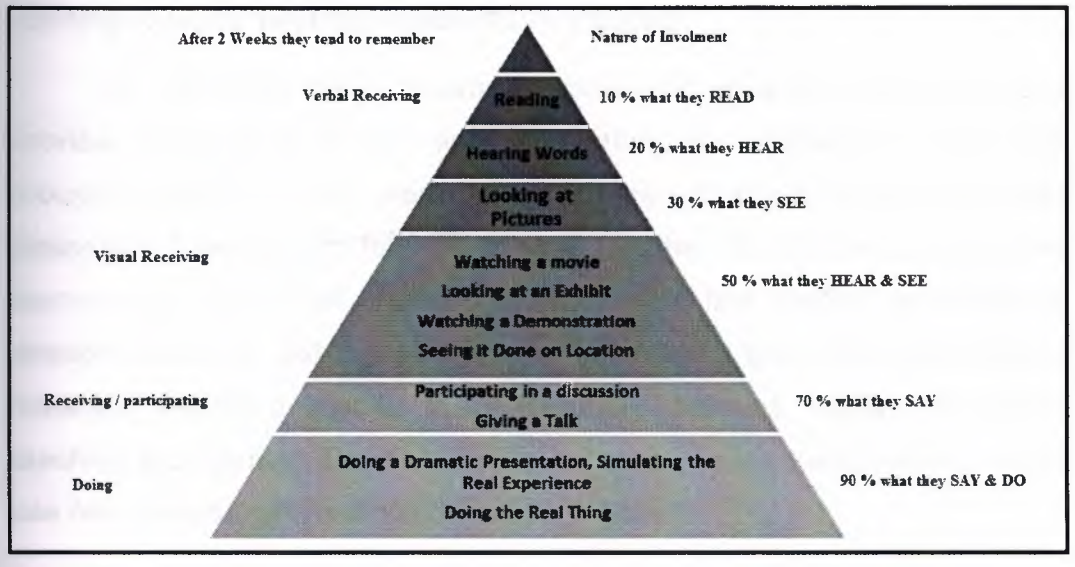
As it can be seen from figure 1, since 1946 Edgar Dale illustrate cone of experience, this educationist suggests that learning and acquiring of information occurs in a hierarchy of experiences. Starting from the bottom of cone, Dale divides his cone into four parts. The most important and effective experiences occur through doing real things physically, manually and dramatically, the multisensory aids are useful for gaining these experiences. This is the explanation of the first part under the name of "Doing". While less significant experiences are described in the second part under the name of "Receiving/Participating", which are occur through involving in the real discussion or talking activity. The next part of cone is named "Visual Receiving", audio-visual activities, scientific trips and exhibitions are useful to possess lesser important experiences. "Verbal Receiving" is the last part which situated on the top of the cone; the experiences ultimately are arranged by their degree of concept. Audio aids and reading are requirement activities (Lalley & Miller, 2007). Dale qualifies the Cone by stating that:

> "The Cone, of course, is only a model-a helpful reminder. It is not an exact and flawless representation of everything that takes place in the

process of learning....The Cone of Experience cannot give a complete description of the vast organic complex that constitutes the process of communication and learning."

Summarizing the percentages that are described in the Dale cone which were cited in many published studies: learners generally remember 90% of what they learned by doing activity, 70% by saying and writing activity, 50% by audio-visual activity, 30% by visual activity, 20% of what they learn from audio activity. 10% of what they learned by reading textbooks (Dale, 1970).

Figure 1. Edgar Dale Cone of Learning



In addition, Mayer (as cited in Klimova, 2013) believes that multimedia aids and materials promote profounder learning. Two centuries ago an American scholar Edgar Dale designed the Cone of Experience which shows how learners normally remember information and experience of what they are talented to practice after doing by themselves. Correspondingly, he points out that the teaching-learning aids can offer a sensory and actual learning experience. Furthermore, multimedia can provide greater potential for gaining knowledge and information and it serves as a significant material and tool for teachers and students to connect lesson with the real life.

2.1.3. Benefits of Using Instructional materials and Their Selection

From the beginning of 21st century, educators have been interested to the importance of integrating multimedia aids in the teaching process for better transforming information and improvement student learning. Recent research studies in education field prove that the use of new instructional materials and new supporting multimedia can help students to think better, to improve his/her inventive thinking and recover the gained information faster than before. Furthermore, using new technology in the classrooms gives teachers' ability to provide a large number of opportunities for effective learning that would otherwise be challenging to reach (Muir-Herzig, 2004).There are also more opportunities to engage students inside classrooms than before as well as addressing a wide range of teaching-learning styles to meet the needs of every learner.

On the other hand multimedia resources or audio-visual aids can provide an entrance to new level of learning for teachers and students around the world. Schools would become more effective by student-centered classroom. Learners are talented to work together, to be more independent learners, to use his/her critical thinking, and to find another possibility to answer questions. But this new type of teaching or using new instructional materials require a change in the teacher's believes, ability, method of teaching and learning. Besides, time is necessary to learn and train in how to use new technology (Hastings & Tracey, 2005).

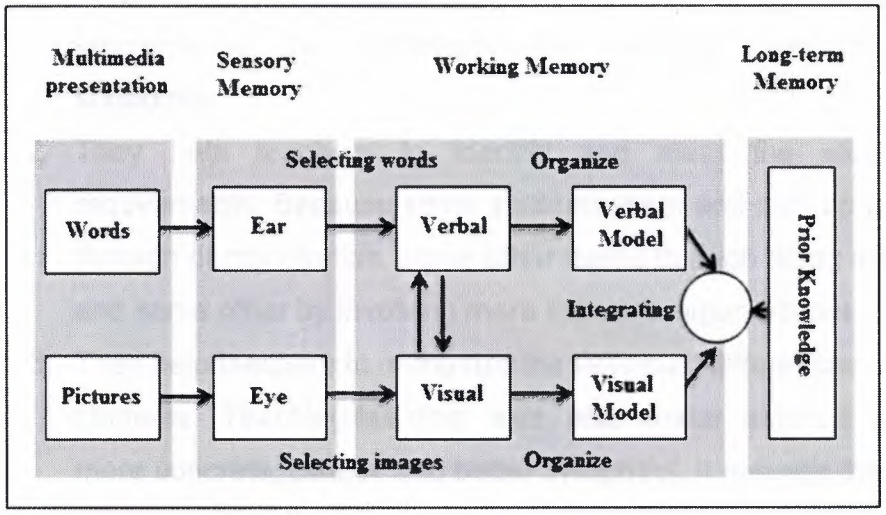
This new style of teaching or using teaching-learning aids move student's role from just listener or being taught to self-learner and the educator's role from just transformer of information to leader or guider. According to Gilakjani (2012) teachers and students have different roles in integrating new technology or multimedia aids in the classrooms than ever before. All teachers must be facilitators, guiders, integrators, researchers, designers and collaborators in their classrooms.

Based on some results in his study, Mayer (as cited in Mohamad Ali, 2013) reported in his Cognitive Theory that in human memory the information and knowledge will be processed through visual and verbal channels. It will

also process through three cognitive processes. The selection of verbal data to be processed in the verbal working human memory and visual data to be processed in the visual working human memory is the first cognitive process. The second includes organization of selected verbal and visual data or information into a verbal mental model and a visual mental model. Finally mixing the verbal mental model with the visual mental model and connecting with prior knowledge to be stored in human long-term memory are the third cognitive process (Mayer & Sims, 1994).

On the other hand, Positive learning happens when students are capable of joining the significant sides of the offered materials visually, verbally and mentally, and organizing them into meaningful cognitive structure, and assimilate it with related existing information or facts as shown in figure 2. Then, students learn better from textbooks and pictures than from texts alone. Textbooks include written and spoken words; pictures include audio-visual aids, animations, images, illustrations and videos. The use of both textbooks and audio-visual aids let the students' brain process more knowledge and information in working memory (Gilakjani, 2012).

Figure 2. Mayer's Model of Memory



Seyed and Neda (2013) believe that the instructional materials are many types and varied, there is no type of them better than others in all cases, and states that the success of using instructional materials and validity does not depend on the quality of these tools or devices. But it must be applied to the efficiency of the teacher in his personality, his ability to use learning aids, his influence on the students, his perseverance and his behaviour. All of these factors have direct impact on the success of using any instructional materials (Steven, Gary & Deborah, 2010).

Success of teaching process doesn't depend only on instructors or schools mangers but also depends upon the different types of tools, devices and materials that are available in the schoolrooms. The different type means teaching-learning aids which make the process of teaching-learning more interesting, more motivated, more supportive, more practical and more effective. According to Arjuna and Diane (2009); Akram and Malik (2012); Nalliveettil and Ali (2013), the importance and advantages of teaching-learning aids were summarized in the following points:

1. The use of audio-visual aids in teaching process helps students to gain vast amount of knowledge by the use of all organ senses. To make learning more effective process and more interesting and reducing the listlessness of the student in the classroom by interaction and working together in interesting environment. To understand the complex ideas in the textbooks.
2. They help teachers to identify and meet the students' requirements. Because some students learn and pick up better through demonstration, some other learns through doing activity and some other by involving more than one organ senses.
3. They help teachers to recognize the individual differences of the students. Teaching-learning aids also make abstract ideas more concrete, clearer and better thoughtful. It reduces the rate of memorizing by given concrete materials and aides in the form of movies, illustrations, charts, models, maps etc.

4. They help teachers to provide meaningful information to the students. For example it is not difficult to bring any object to the classroom like buildings, animals, mountains etc. certainly, pictures, movies or models can be used for learning goals at that time.
5. They help teachers to save time, energy of teaching, because very difficult texts or items can be easily taught through multimedia aids. Instructional materials also help teachers to get sometime or saving lesson time by making good learning plans and avoiding long explanations.
6. They help teachers in overcoming the off task students, misbehaviours and lack of participation. They help teachers to develop scientific approach among the students and clarify real facts.
7. Every learner has the tendency to forget information or knowledge. Appropriate use of instructional materials helps students to remember, retain more concepts and keeping the information permanently
8. Students can motivate better when they are learned by using suitable and different teaching aids.
9. Instructional materials develop the imagination thinking skills of students when they see, hear, taste and smell by his/her senses.
10. Instructional and materials develop the conceptual thinking by linking concepts with the theoretical information.
11. The teaching tools, devices and games create interesting learning environments for students.
12. Using instructional materials help students to increase the vocabulary and language skills.
13. Using instructional materials afford direct experience to students by connecting the lesson with the real life.
14. Instructional materials support what teachers are saying and summarize main concepts.

15. Help teachers in facilitating and using different teaching-learning styles and methods.
16. Instructional materials help teachers to achieving general educational goals.

From the above it can be said that the successful teaching process are done by using teaching aids and materials. Afzal, Alison and Adrine (2004) state that because of having diversity in teaching aids, the selection of appropriate type will be difficult to fit with the differentiated needs of the students. The teachers' responsibility is finding and modifying special teaching aids which related to the lesson objective. For this reasons selecting suitable instructional materials must take into account the following points:

- In line with the local protocols.
- Up to data.
- Relevant to lesson topic.
- Fit with the needs of students.
- Prepared before and readable.
- Visible to all students in the classroom.
- Consistent with objective of the lesson.
- Emphasize important point.
- Trained on how to use it (Amo & James,1946; Mehisto, 2012).

Finally, within the nature of the teaching aids and materials, there are scientific aids and tools that can be used in social studies but cannot be used in mathematics or other subjects. Then, selection of multimedia aids are depends on educational goals, teaching contents, teaching strategies, display capability and commensurate with the scientific and technological development. Moreover, the priority is given to the selection of available educational aids and materials in the schools, then to that which can be adjusted, and then to that may still be designed and produced easily by the teachers. On the other hand, the selection is depending also to the characteristics of learners in terms of age, number, economic level, social levels, population, environment, intelligence, skills, information, experience, attitudes, habits and values (Mehisto, 2012; Andambi & Kariuki, 2013) .

2.1.4. Challenges and Barriers of Using Instructional Materials

It has been argued that providing teaching-learning aids or instructional materials and mere provision of technology in the classrooms does not mean that educators will use it in their teaching process (Cuban, 2003). In fact, not all educators are able to use technological tools and materials in their teaching. The obstacles to using instructional materials and new technology in the schoolrooms vary including, teaching aids' resource limitations, teacher ability and skills, and instructors' attitudes and beliefs (Hew & Brush, 2007). Furthermore, some barriers are overcome after integrating new technology with educational curriculums and providing new teaching aids, computers and new multimedia devices in many schools around the world.

As claimed by Nyambane & Nzuki, (2014), teachers' attitude is another factor that limits the integration of new technology in teaching area and their beliefs towards the importance of new instructional materials for teaching. The negative teachers' attitude and belief is due to lack of financial support, shortages in training and many teachers didn't entered courses related to educational technology. Having some problems like time limits and suitability, lead some teachers to decide not to use the multimedia aids in their teaching.

But teachers don't lean towards using technology and teaching aids if they are faced the problems mentioned before. Moreover, many teachers reported that having limited time to reviewing and learning about new technological devices and tools are fundamental barriers for using and utilizing audio-visual aids in their teaching (Hew & Brush, 2007).

According to Cuban (2003) and Han (2008) Teachers' skills and knowledge are significant factors in the use of teaching aids during lesson time. Lack of specific technological information and skills are mutual reasons that observed through collecting data about using new technology from many teachers. However, those tutors who participated in training courses related to integrating new technology and using new instructional materials are much more dominant to use educational materials and integrate technology into their lessons than those teachers who do not.

On the other hand, many teachers are afraid from using these devices and tools and feel unprepared because integrating new technology and using educational tools and materials need effective classroom management, precise lesson plan and effective teaching strategies (Muir-Herzig, 2004). Organizing schools and preparing skilled teachers are the main problem of many governments. For these reason nowadays taking training courses has become part of educational process (Tedla, 2012). Thus, Government policies currently reflect their recognition of the significance of integrating new technology use and enhance the quality of education through teaching aids and new technology (Cuban, Kirkpatrick & Peck, 2001).

Moreover, the most influential barrier in integrating new technology and using new teaching aids, particularly secondary and primary schools are the financial shortage and lack of technical information. Based on many studies the teachers' ability to develop instructional materials, computers software and new type of instructional materials for the purpose of teaching is at a low level (Nyambane & Nzuki, 2014). Most of educators only focused on teaching and transferring the knowledge to the students without developing thinking style of student and ignored that student-centerd classrooms approach. Unfamiliarity with the means of teaching is the essential cause of failure in education process. The common technical failure in most schools is due to the teachers' misunderstanding on the power and important of using new technology (Zin, et al. 2013).

Mumtaz (2000) explains that one of the most essential problems in education process is that teachers don't have a strong and intelligible sense of the causes for pedagogical changes, educational alteration and progress. Consequently, there is much unawareness, Indifference, misunderstanding, disappointment in changing educational programmes, unnecessary and misallocated resistance and misunderstood idea about integrating new technology. Reforming pedagogy need engagement senses, supporting programs and sufficient plans.

Furthermore, Bhalla (2012) states that teachers and educators are faced to various challenges all the time, and they have recognized the potential of new technology and instructional materials to enhance teaching-

learning process, but there is a misunderstanding ideas among them towards this potential. Inescapably, nowadays the geography lesson needs constantly up-to-date maps, information, atlases, documents, geographical illustrations and all type of teaching aids. These mentioned data are not obtained without new technology, internet sources and training courses related to the technical information (Sezer, 2010). So, many barriers are limiting the teachers to be up-to-data such as unavailability of internet resource which is considered to be indispensable information resources in teaching process.

Khan, Hasan and Clement (2012) divided integrating new technology barriers and obstacles that limit the use of new teaching aids into two categories, external and internal barriers. The first categories include; lack of technical support, unavailability of equipment, undependability of equipment, and lack of other educational resource related to new technology. While, the second categories include; institute level factors like administrative support and instructor level factors like attitudes and beliefs of teachers upon using teaching-learning aids, new technology and credibility in changing him/herself. Consequently, these external and internal obstacles and barriers negatively affect the use of new technology in educational process.

According to Cuban (2003); Muir-Herzig (2004); Hew and Brush (2007); Tedla (2012) there are numerous reasons and factors that inhibit the use of instructional materials and application of new technology into schoolrooms. Some reasons are administrative refer to the causes, such as shortage of financial support, lack of educational tools and devices, unsupportive plans of ministry of educations, government policy and the lack of training courses related to instructional materials and new technology. While, some others are related to teachers and educators, such as teachers' age and gender, teaching experiences, computer skills and experience, time managements and teachers' attitude and believes towards using new technology. Consequently, these factors and barriers directly or indirectly are affecting the use of instructional materials and new technology in teaching-learning process.

2.1.5. Utilization of the Instructional Materials in Geography lesson

According to its contents, outcomes and methods geography lesson is defined by many pedagogical studies. As one of the general definition geography as a school subject is the curriculum which leads students to answer questions and collect information about the nature and the human world, various phenomena that surrounding human, understanding and using maps (Sears & Hughes, 1996; Allison, 2012). Also it develops knowledge of different places, various environments, problem solution abilities, and information about spatial relationships, political, economic and social issues inside and outside the classroom. These information and knowledge are collected by multiply senses within supporting instructional materials (Aderogba, 2012).

On the other hand, Geography lesson study relationship between students and environment. This schools' subject try to make useful students for society, offer some suggestions and make some connecting information about this relationship. Our nature is like a big laboratory for students. But all students cannot take all information in this laboratory because as mentioned before it is big and vast. For this reason using instructional materials are must for obtaining this information inside classrooms. There are many useful teaching aids or supporting materials in this schools subject. But the most important supporting issues are field trips, research trips, observation and examination. Therefore, conducting fieldwork is an essential part in teaching geography lesson and doing fieldtrips are essential parts for geographical education. Exploring geographical information, collecting knowledge about environment and analyzing features are possible for students only through fieldtrip experiences (Balci, 2012).

Furthermore, geography it is that study which describes and explains human life, effects of human activity, the inhabitants, physical characteristics mainly the surface features and the phenomena of the earth (Jensen, 1999). It's also the study of relationship between human and environment and natural methods of interaction with the environment and the effects of that interaction (Ismail, 1996). The natural geography studies the environmental

aspects of nature that surrounds human and place distribution and the factors influencing behind this distribution (Chalmers, 2005).

According to Gecit (2010) many philosophers define geography as a description science. Frequently, geography was defined as description of human life, study world sections, environment dimensions, focusing on the area location and description of place and event. In fact, geography lesson is not just memorization the names of places, mountains, countries and cities but it is problem solving and examines economic, natural and human events and its relation with humans world. Furthermore, geographic teachers should make teaching aids like movies, photographs, pictures, maps, films, DVD's, CD's and some maps simulation programs, multimedia, educational devices and hypermedia as a part of geography lessons course.

Geographic lesson is more than knowing, understanding and memorizing the names of places or countries. A geographically learner must know and gain information about how people and places interact together and connect this information with time or history. Without geographic information and skills, students are unable to understand complex global communications and universal problems that exist at several countries. Also they cannot imagine the space knowledge if teaching process was just memorizing the textbooks information without supporting by suitable teaching aids and tools (Farhan, 2009 & Ronald, 2011).

It has been widely argued that teaching geography as a school subject need to move from just teacher centred, studying in textbooks and just an ignored lesson to learner centred, using teaching aids, involving student in the subject activity and using supporting materials for effective learning process (Ismail, 1996).

Nowadays, the most important challenges facing the geography teachers is the rapid changes that have occurred in the field of economic life, social and cultural rights, new technology, new educational tools, new lesson curriculums and new information. All these changes make challenges more difficult (Dalby, 2012 & Farhan 2009). For this reason the responsibility of educational institution and ministry is providing modern educational materials

and teaching aids for all schools to achieve their educational goals (Ekaterini & Aikaterini, 2011). All school subjects have some general and particular goals the geography lesson goals are as following:

- **The cognitive goals**

1. Provide the learner a set of facts and concepts of geo-political which contribute to the formation of scientific and cultural character
2. Help the learner to understand the environment in various manifestations of natural, human, social and economic development.
3. Statement of the relationship between geography of nature and other branches of geography.
4. Enable the learner to recognize the geographical reality in which they live and interacting with.
5. Giving the learner information, knowledge and geographical concepts and of geography required to search for the different sources.
6. Help the learner to know their environment (Khadr, 2005).

- **Behavioural objectives:**

1. Develop the ability to exchange analysis and conclusions.
2. Give the learner the following skills: mapping and reading, to collect and coordinate information and its criticism, use atlases and formation of values and attitudes, such as preservation of the environment and its natural resource.
3. Develop the skills of field research and scientific inquiry through collective action or individual (Group work and individual work).
4. Develop the skills to use presentations, charts and graphs, and statistical tables, and scales.
5. Develop the skills of identifying problems and formulate hypotheses, data collection and analysis (Khalafallah, 2002).

2.1.6. Most Common Instructional Materials That Used in Geography Teaching

The use of instructional materials and teaching aids by geography teachers and use of educational means, tools and devices in the classroom is becoming gradually very important (Naser, Leong & Fong, 2010). Light & Littleton (1999) point out that the potential of new IT to support learning and teaching is now generally recognized, and it can be powerful tools and means for more effective learning. But in order to be effective in today's education process, it needs to be familiar with this type of technology. Educational technology should become a normal part in teaching geography subject (Luann, 1997).

According to Alsayed (2004), the successful teacher is the one who works hard while explaining the lesson to establish evidence to support his statements and contents studied in order to help students understand the lesson well and achieve its objectives. For instance understanding the phenomenon of eclipse shows the relationship between the earth and the sun and the moon and establishes proof of the existent relationship between them. The teacher will bring evidence in the course of teaching. It also helps explanation and illustration. The teacher must take into account that such evidences to be based on a scientific basis, and to be accurate, honest, and modern, also having diversity, and the thrill, suitability to the level of pupils. To achieve above objectives teacher must use new technology, instruction tools and devices to support teaching and learning process (Jaml, 2001).

Nowadays learning must be supported by the use of modern educational tools and materials such as computer networks and its mediums of videos, graphics, maps, illustrations, educational movies, data show and search engines, electronic libraries, as well as internet portals, whether after or within the semester. The important things of using instructional materials are to use all kinds of technology in the delivery of information to the learner in the shortest time and with less effort with the biggest benefit (Faraj, 2005; Shih, Chuang & Hwang, 2010).

Real learning needs many experiences, the more organ senses such as emotions, sound, sight and touch that are involved in teaching process give more powerful and effective learning experience. Combination textbooks with the three-dimensional objects, multimedia resources, pictures, videos, real samples and maps are very significant for supporting teaching process (Perez-Lopez & Contero, 2013).The most common educational aids that are used in geography subject can be summarized in the following points:

1. The Globe

Globe used for teaching geography and history lesson. It provides teachers and students, vast information about weather, areas, directions, distances, time, country symbols, people colours, country border, oceans, rivers, four seasons, space and information about day and night. It is the most common teaching aids that used in geography lesson teaching which is nearest representation of the earth or three-dimensional model of the earth.

Moreover, without using globe, teachers cannot describe the shape, nature and axis of the earth. In fact nowadays, this teaching tool is neglected and unused by teachers because of some disregard reasons or lack of administrative supporting. Moreover, the advantages of using globe are more than all other types of instructional materials that are used in geography subject (Ekaterini & Aikaterini, 2011). The power of the globe comes from the ability to show:

1. Truthful and correct idea of location.
2. Shape and names of oceans, mountains and rivers.
3. Right information about revolution and rotation of the earth.
4. Correct information about why day and night and seasons will occurs.
5. Information about hemispheres, equator the North and South Pole (Ute, 1995).

Lastly, the globe as a geography teaching and learning aids has not been used as much as it should be used in many schools around the world and not mentioned that much in published articles or research though the significance of this tool has not reduced maybe due to new electronic

resources like GIS which used instead of globe in many study area or schools' classrooms around the world. But the still globe is more plentiful and easier teaching tools for geography lessons.

2. Maps

In general, there are three useful types of maps in geography subject, first geography maps and atlas, second concept maps and illustration.

- **Geography maps and atlas:** are the most important parts in geography subject. Learner should be familiar with using maps and atlases in the primary school. There are also different types of maps such as physical, political, topographic and thematic. Organized geographic maps in general, are usually used as teaching means in basic schools in geography subject. Teachers use maps and atlases to show their students faraway places, border of the countries, to teach and show historic landmarks and place locations, to deliver information related to school texts (Damiralp, 2007). Recent research has shown that map is one of the traditional teaching tools that researchers and specialists in the field of education means have studied the way learners use geographic maps and atlas to help them learn, remember and connect the maps with related text information in geography (Raymond, William & William, 1993).

  Nelson and Narens (1990) believe that geography maps play large roles in teaching and supporting information, maps are as primary messages to think better and remember the information faster and simply as reinforce of information.

  Finally organized map presentations, such as geographic maps and atlases, are one of the most important methods of supplemental educational materials that are used in classrooms. So, it is essential to understand how students use maps with linked text books to help and increase their knowledge (Michael & Raymond, 2002).

- **Concept maps and illustrations:** are one of the applications of Ozbil's theory in meaningful learning. It is a conceptual scheme which represents a set of concepts contained in the knowledge or subject. It

is arranged in a hierarchical sequence so that the general concept is placed on the top of the map and less general concepts are placed at the bottom. The related concepts are linked by lines or arrows with instructions to write some words which clarify the relationship between them (Mauri & Vuokko, 2002).

According to Obeidat and Abusemid (2005) the concept maps are to organize information in forms or graphics, showing the relations between them and the maps take different forms according to the content of the information. Moreover, Villalon and Calvo (2011) define concept maps as sketch featuring form meanings of concepts within a network of relationships of hierarchical ranking of the most general concepts to the least ones. The concepts are linked with the related words which make an important and useful sentence.

Jallad (2005) states that concept maps should be pyramid-shaped, meaning that broader and more comprehensive concepts should be at the top of the map, and then the more private and less comprehensive concepts come.

It could be argued that the concept of maps helps the learner to learn, and it facilitates the process of understanding and cognition, develops higher mental skills, and progresses its ability for creative, contemplative critical thinking, with teaching students how to learn. On the other hand conceptual maps reveal misconceptions of the learners, and are considered as successful ways to evaluate their learning.

Khalili and Haider (1996) add some features of concept maps:

1. It helps to connect new concepts with cognitive structure of the learner.
2. It helps the learner to focus on the main ideas of the concept that is taught.
3. It helps the learner to connect new concepts and distinguishes them from similar concepts.
4. It provides the learner with a summary diagram of what he learned.

5. It helps the teacher to find out the misunderstandings that may arise for the learners.

3. **Overhead projector (OHP)**

OHP is a device that can project maps, charts, diagrams, atlases and writings written on the papers which are called transparent sheet on the white screen in front of learners in the classrooms. The term over-head projector (OHP) comes from the fact that the showed subjects or illustrations are over the head of the teachers. The light passes through this transparency paper and then the picture reflected at 90° angle on the white screen on the whole on the back of the teacher (Rather, 2004).

The OHP is probably the most common visual tool that can be used to support instruction method, also help visual learner to learn better, within over last 20 years its use has become extremely widespread and popular. Certainly, the OHP has now replaced the traditional blackboards or whiteboards as the most commonly used visual tool in many schools and as educational technology devices (Seyuen, 2006).

On the other hand there are many advantage of OHP comparing with the other visual devices, for example it will work without connecting with the other devices like computer or laptop and does not require the classroom to be blacked out and therefore allowing students to take notes. Also it helps teachers to make teaching process more impressive and illustrative.

There are many reasons for using this educational technique because it provides better and clearer understanding of the lesson topic, it can be used for large classrooms and small classrooms' group, more facts and information can be presented in a limited time, the classrooms control can be better due to the effective teachers' eye contact and it is simple to run and operate. On the other hand, this technique has some disadvantages like other instructional technique such as the students will be busy in copying the notes and they cannot concentrate on teachers' discussion (Lalvarmawi, Ningthoujam & Mishra, 2013).

4. Data show & Slid projector

The data show and slid projector has a number of definite advantages over other methods of presenting audio-visual information. A teacher can, for example, use it in exactly the same way as OHP but with the great advantages of allowing computer programs like PPT, WORD, and etc..., also help audio learner to learn better. At the same time the data show and slid projector are extremely useful education tools for supporting teaching process (Gulbahar & Guven, 2008).

According to Lalvarmawi, Ningthoujam and Mishra (2013) there are various reasons for using these teaching techniques such as providing a better quality of pictures, videos, movies, texts and diagrams. The common program that is used in data shows technique is power point presentation, because it is more interesting, it can be prepared simply comparing with the other programs and it can combine animations, videos, pictures, movies and three dimensional images. On the contrary, some students dislike data show technique and power point presentation because some instructors go too fast, sometimes they ignore some data that are presented in the power point and the students cannot take down the information, notes and diagrams.

For these reasons data show and power points should be used only for presenting information and diagrams not for teaching all lesson objectives and the teachers should explain all presented information and notes point by point not just showing and skip over. In using these techniques the teachers should also give some time to the students to take down notes and important points that are written inside power point presentation and use these teaching aids with blackboard together to reach educational goals of lesson subject. In addition, more students and teachers prefer PowerPoint and data show techniques (Shallcross & Harrison, 2007).

5. Computer

The computer is a system of education; it does not only focus on hardware and software, but combines them in one system which contributes in the improvement of teaching and learning, and self - education whether it's inside or outside the school (Koksal, 2004). Most researchers believe that

computer and its accessories should be organised for every action and computers cannot do everything alone but must be run by the operator, teachers or students. As a result, computers and its accessories were mostly helped as tutors, even as a necessary machine for learning and teaching (Han, 2008).

As IT has become more available and useful than ever before, using computer starts to be an important teaching tool in educational field. Teachers can use computer and laptop as useful means or tools to organize classroom activities. Also the computer offer a chance to learner through more senses than one, they can learn and remember easier and faster. Using computer as an instructional material for students can be more powerful or capable to focus on the topic (Peat & Franklin, 2002).

On the other hand, some studies have pointed to the advantages of the use of computers in the teaching of geography. Alsoat (2003) states that computers have features in the field of geography education, including:

1. It develops the students' comprehension through telling phenomena.
2. It encourages solving problems of geography.
3. It develops the process of perception and analysis of phenomena by using maps.
4. The students studying geography learn the meaning of all terms, concepts and generalizations when they see them related to life.
5. The computer helps learning the natural and human phenomena in the content of the geography curriculum.
6. It leads to the acquisition of facts and skills and encourages independence in working.

Computers can save learning resources and aids for every year, which is impossible in the old-style schoolroom, but the most common barrier of using computers is teachers and students need training courses to learn how to use it (Han, 2008). We can say that the use of computers in the teaching of geography subject gives the learner a chance to resolve an issue or to

achieve a particular result by himself, in addition to providing a promotion and a desire in the process of transferring knowledge to the learner, which leads to an increase in the effectiveness of the learner, so he learns with all the activity and effectiveness.

6. Movies, Video and TV

For many years, movies have been broadly used in education and teaching method. Especially in the field of language, social and neutral science likes educational material for supporting learning and teaching (Light & Littleton, 1999). With the arrival of TV and video players, which make it even easier to show education movies in the classroom, this practice has become even more dominant. Film and video presentations through TV or other educational devices can be used as effective lecture substitutes.

Barford and Weston (1997) point out that, it possible to convey a scientific and social subject in the manner that suits the student, for some of them visual way are possible while for the others the audio-visual method is suitable. Learning by movies and TVs allow the possibility of applying the sources in different ways that allows editing according to the best way for the learner.

The television, One of the best types of audio-visual aids it seems to be an electronic blackboard for the modern classrooms in the future; it is like child's third parent or first teacher in his/her life. but like other instruction tools, TV has disadvantages and the most common disadvantages are the requirements of sub machines like video player for recording and playback, which are many teaching centres or classrooms have not been able to afford them due to lack of budget (Berk, 2009).

On the other hand, Motion pictures usually named as films which were presented by effective instructional device like TV or computer. It is audio-visual aids because it offers learners to use auditory and visual senses. They are beneficial and appropriate aids in order to cater the learners' attention and make interesting environment among them to effective learning. They deliver a lot of evidence and information to the students. There are many types of films which are used in teaching process like educational films,

schoolroom films, basic education films and supplementary instruction films. Films will improve the different abilities of the students like thinking, intelligent, speaking, imagination, explanation etc. It brings past and present of historical events in the classroom, the growth of earth and plants or geographical phenomena. That is mean learning become more effective fruitful (Rather, 2004).

Movies and videos, photos and drawings played a significant key role in teaching-learning process especially with young children. Most primary books typically include pictures and photos as supportive tools for learning. These visuals pictures and photos are used to teach and make effective teachers' connections with students and their environments. Additionally, visual aid has been found to be effective materials for involving a sight sense in teaching area. Lately, effective connection between schoolrooms and community has been done with learners using photography in their teaching (Strickland, Keat & Marinak, 2010).

7. Real Sample and Three-dimensional Models

Real sample and three-dimensional models are often used in classrooms as educational tools for learning materials found in course books. The hills, deltas, peaks and passes of mountains, ranges of mountain, mountains, valleys, plateaus of earth surface and plains are some example of three dimensional models. However, in most cases, the ways real sample and three-dimensional models have been used in classrooms have not supported learner's thinking. In recent times, a specialist has provided teachers and an artiste of classroom means to use real sample effectively in teaching process (Hwang, et al. 2009). In several studies findings show that the order of the real samples are presented to learners, play a vast role in their ability to think better and learn the geographic subject in active ways. In these studies, participants or teachers were shown a real sample and then three-dimensional models or the same materials in reverse order. In general, students learned more facts from those educational tools and means, and did so more precisely when the real sample was studied and shown before the text books (Catling, 2013).

2.2. PREVIOUS STUDIES

The field of education and teaching in general have many researches and studies that dealt with the entrances of multiple teaching methods, perhaps the area of social teaching studies and using new technology and new learning-teaching aids has received the largest chance of them, therefore many of the studies and research fields dealt with various aspects of teaching methods and teaching aids in general and particularly with methods and aids that used in teaching geography, in the pursuit of development and even have a role in the development of education process, there are many studies distributed with the obstacles and difficulties that limit the use of these modern, teaching methods, teaching aids, educational materials and new technology. Also many study focussed on the impact of using modern teaching methods and modern teaching aids in academic achievement.

"The role of the monitor (Data show) to activate the skill of teaching from the viewpoint of university teachers" was another study which has been done by Alkubaisi (2011) in Iraq. The research aims to identify the views point of Anbar University teachers with various specializations toward using multimedia aids like data show to activate the teaching skills of university. The researcher used questionnaire as a tool to collect information, which was distributed to (120) teachers have MS and PhD degrees in all fields of teaching. Moreover, the study showed that all teachers have used data show in their teaching process and they have positive attitudes towards importance of data show in teaching process and towards using data show for developing teaching skills and they were agree to enter training courses related to increasing skills in using new technology.

The study of Ozdamlia, Hursena and Ozcinar (2009) aimed to identify the attitudes of the instructor towards the educational technologies, all participated candidates at Near East University. A study entitled "Teacher candidates' attitudes towards the instructional technologies" in Cyprus.

Furthermore, the questionnaire of general survey was distributed on the (120) teachers. Those instructor were candidates who enrolled the "Instructional Technologies and Material Development" in the Near East University and they classified according to their specialization. Finding of this study showed that most teachers approved helpful effects of instructional technologies. A significant difference between gender's means was one of the important results of this study. On the other hand, no significant difference was observed among branches such as: Computer Education, Sport and Physical Education, English Language Teaching, Turkish Language and Teaching.

Hussein (2010) has conducted a study under the name "The Attitudes of Undergraduate Students towards Motivation and Technology in a Foreign Language Classroom" at Near East University in North Cyprus. The main aim of this study was to observe the attitudes and behaviours of (700) learners towards stimulus and using new technology in the classroom. Counter to current study the questionnaires were distributed to students which study in the teaching departments at Atatürk Education Faculty. A descriptive survey was used to collect questionnaires data from undergraduate students in English language lesson. Furthermore, the finding of this study point out that new technology and multimedia aids playing significant factor in education process and all participants strongly accepted integrating new technology in their education area.

Ozdamli (2011) have distributed randomly a questionnaire on (200) students as requirement tools for "The experiences of teacher candidates in developing instructional multimedia materials in project based learning" study which conducted at Turkish Republic of Northern Cyprus. The study population involved (100) male and (100) female students whom entered "Instructional Technologies and Materials Development" courses for developing instructional multimedia aids skills such as designing multimedia instructional materials, preparing course software, developing PowerPoint

presentation skills, slideshow and designing educational web-site. As a result of this study the participants showed negative attitude toward developing new technological skills and information.

"Technological proficiency perception assessment of teachers in vocational high schools" is a study which conducted by Hursen (2011) in Turkish Republic of Northern Cyprus. The main purpose of this study is to assess perceptions of teachers toward the new technological skills. Moreover, the sample of research study was selected from teachers whom teaching in vocational high schools and 197 teachers was participated as responders. After collecting data the finding of this study showed sufficient level of skills in technology area. The interesting result of this study was the notable a significant difference according to background information of the participants' age and professional position of teachers whom take place and teach in vocational high schools.

The purpose of Gulbahar and Guven (2008) study was to identify the usage of information and communication technology tools in primary schools especially in the social studies lesson considering several variables which affect the achievement of employment the use of these modern tools. The study was conducted in Turkey by selecting (326) social studies' teachers who teach grade fourth and fifth at primary schools. Study results showed that teachers are faced many barriers to use ICT resources like aware of the existing potential; accessibility problems to ICT resources also lack of training courses to learn how to use these new technology. And the majority of educators recognized the significance of using ICT in social study teaching. The majority of instructors also informed a lack of self-confidence in applying ICT in their own teaching. All teachers conserved an increased interest to apply ICT in their own education process in every situation. According to these results, the training course is succeeded solution for giving the teachers needed skills in educational and technical information about using ICT in their learning process and increasing the motivation for using ICT.

"How do Teachers Approach New Technologies: Geography Teachers' Attitudes towards Geographic Information Systems" was the title of Demirci (2009) study, which conducted in Turkey. This study was aimed to examine the availability of GIS technology in geography lessons at Turkey secondary school focusing on geography teachers' attitudes, knowledge and skills towards Geographic Information Systems. (200) private secondary schools in (33) separate provinces were selected in Turkey and a study survey was distributed to (79) geography teachers. The findings of the study showed that (66%) of the teachers don't have any information about GIS and (82%) of the teachers cannot use it in their teaching process especially geography subject. Moreover, (16%) of geography teachers have some information about GIS and they have used before. Finally, Most of the respondents thought that this new technology is useful instruction tool for geography lessons. On the other hand, finding of this study sheds light on the some barriers such as lack of hardware, computers' software and availability of new technology. Finally, most teachers have positive attitudes toward integrating GIS and new technology into schools especially geography lesson in turkey.

Additionally, "Attitudes of pre-service teachers from the department of elementary education towards the effects of materials use on learning" is published study of Can (2010) which conducted in Turkey. This study aimed to determine attitudes of instructors towards effects of using multimedia aids like overhead projector (OHP) and projector on teaching-learning process. The study sample included (184) older pre-service instructors from the department of elementary education. Depending on the findings of the research study:

- Most teachers have positive attitude toward using instructional materials especially overhead projector.
- On the other hand, they found using overhead projector and projector will brings powerful teaching and learning results.
- It will save time of lesson because it's easy for setting.

- Overhead projector is this type of multimedia which encourages students to think better.

"Elementary school teachers and teaching with technology" it's a title of research which conducted by Varol (2013) in Turkey. This study aimed to identify attitudes of elementary school computers' teacher toward using new technology in their classrooms. In this study (100) elementary teachers were selected to answer research questions. In fact, (157) teachers were selected to participate in this study, but (100) were agreed to participate due to some personal factors. Furthermore, after collecting data the results showed that teachers' knowledge and information in new technology were very low and they have particularly negative attitude towards using technology. Teachers also preferred to use internets, painting programs, Power Point presentation, CD players and e-mails more than concept maps, simulation programs and other types of teaching aids and materials.

The purpose of Acikalin (2014) study was to examine how general science instructors use educational technologies in their classrooms. This study entitled in "Use of instructional technology in science classrooms: teachers' perspectives" was conducted in Turkey, in particular is related to current study. The population of the study involves (63) instructors who entered training courses related to teaching methods in a big Turkish university. Most teachers taught in a professional schools which provided by new technology. The result of the study showed that PowerPoint (PPT) was the most used educational technology or multimedia aids in their classrooms lesson. Other teaching aids like blackboards are coming in the second order in using by the participants. The least used educational technology was animations or educational movies. In spite of this fact, all schools are ideal and provided by new technology and the teacher were told to assume new instructional technology in their lesson, but all teachers didn't use computer simulations, internet, educational software, interactive smart boards, spread sheets and other new teaching aids.

Albirini (2006) has published a study which particularly related to current study in using teaching materials. This study was conducted to determine high school English Syrian teachers' attitudes towards information and communication technologies (IT). Furthermore, this study examined the relevance between computer attitudes and some independent features such as cultural observations, computer characteristics, capabilities, teachers' skill background and computers access. Based on the results of this study all teachers have positive attitudes towards new technology and integrating computers in teaching process. The participants of this study were selected from high school teachers in Hims (one of the Syrian province) and the number of teachers were as follow; (887) teachers, (214) males and (673) females with different educational backgrounds.

Furthermore, in a research was conducted in Solapur District in Maharashtra state of India. Jalad (2011) have chosen five schools to conduct the study. But counter to our study total of 300 learners were selected not teachers as a sample of his study, to examine effectiveness of the audio-visual aids and materials in teaching English language in five primary Schools among 35 schools of Solapur District. The students or participants found the English lesson very interesting when the teaching tools or materials such as laptops, data shows, computers, video players, and tape recorder were used in their teaching process; the researcher noticed the full attention when the above multimedia was used for learning. The finding of this study showed following results:

- Most of the schools don't have suitable facilities and no special rooms for keeping educational aids and materials.
- Many teachers are unable to use the tools, devices and materials because they are not trained and they don't have proper information in using new teaching aids.
- All teachers in selected schools are used traditional teaching aids like black board, maps and pictures.
- Supply of computers and new devices are not adequate.

- Most of the selected schools in this study haven't use radio and TV programme in teaching process.

Coming to Almashaqbeh study (2012) aimed to investigating teachers' observations toward the obstacles that face teachers during the process of using computer and new technology applications in teaching. Where the researcher built a questionnaire was based on a random sample of (203) teachers from some public education schools at Irbid school districts in Jordan, the study showed a number of the following results:

- Lack of training courses for teachers on the production methods and the development of educational studies and lack of teacher's definition.
- Lack of maintenance specialist and a means specialist within the school.
- Lack of private laboratories for means that need to be in specific climate and circumstances and lack of maintenance and lack of keeping means well.
- The lack of teaching aids linked to the lessons of the curriculum, and the lack of means within the school.
- Frequent burden is out by the teacher when teaching and that would prevent him from using teaching aids
- Classes are Uninitialized for the use of teaching aids.

All educators need to improve professional skills in new technology and take a part in training courses related to using instructional multimedia aids like Interactive Whiteboard were results of Aytekin, Abdulaziz, Barakat and Abdelrahman (2012) research which was conducted in Riyadh city: Saudi Arabia. Moreover, the research study aimed to determine attitude of Saudi secondary school teachers towards using and utilizing Interactive Whiteboard in their teaching process. (100) teachers were selected to participate in this study from Riyadh secondary schools in the fall semester (2011/2012). On the other hand, the findings showed positive teachers' attitude towards using

new technology, especially Interactive Whiteboard and a few majorities of teachers used Interactive Whiteboard successfully in their teaching process.

Kolnik (2012) has published a study titled "Some features of the interactive whiteboards for geography teaching in Slovenia". And the purpose of this study was to identify some features of interactive whiteboards and availability of new technology in geography lessons in Slovenian schools. The participants was selected randomly form elementary schools 27 teachers were selected and from secondary school 19 teachers. The finding of this study showed that 5 teachers at primary schools can use whiteboard and new technology and 4 teachers in secondary schools. The result also revealed some obstacles like lack of financial supports, lack in training courses for geography teachers, personal experiences and some strengths and weaknesses as well as problems that faced geography teachers in integrating new technology.

Similarly, in another study which is particularly related to present research; Jamian and Baharomb (2012) pointed that teaching aids are very important for developing students' learning experiences and knowledge. This study was conducted in the six states at Malaysia. The study aimed to examine the use of teaching aids, materials and supportive tools in learning process by teachers among remedial students in (300) under enrolment schools were identified randomly. The data was collected from (242) teachers which selected in this study to answer the conducted questionnaire, (78) teachers are male and (164) teachers are female. The results of the study showed that use of teaching aids provides a relatively great impact in improving learners' achievement. Also teaching- learning aids are a significant component in ensuring that education takes place successfully and teaching-learning aids are potential to yield meaningful learning and useful information.

Furthermore, a pilot research related to integrating new technology in social study lessons was conducted by Thieman (2008), to examine the reflections of (223) secondary and elementary schools at Pacific Northwest in United States. This study tried to investigate teachers' ability in integrating new technology into their teaching process during (5) year study. In addition, to addressing the purpose of this study data was collected from (495) pre-service teacher with different specialty as work sample. After analysing the results showed that (85%) of pre-service teachers was integrated new technology information and skills in educational practice with their students and a few number of K-12 students were used new technology for solving problems, developing educational information, making decision and critical thinking.

Moreover, the fowling points are the purposes of Kotrlik and Redmann (2009) study which conducted in United States.

- To examine the extent of using and adaption of instructional technology by teachers who were selected for this study.
- Identify the barriers that may limit using technology by teachers.
- Determine teachers' experience in new technology.
- Identify teaching aids availability.

"Technology Adoption for Use in Instruction by Secondary Technology Education Teachers" is the title of mentioned study and the population of the research involved (134) teachers of secondary technology education in Louisiana state but (67) teachers returned questionnaire form. Moreover, the collected data showed some results such as: school email account, computer, Internet connection, videocassette and CD or DVD recorder are existing in their schools but digital video cameras, GPS, personal digital assistants are fewer than other instructional materials, lower level of adaption was observed among all teachers that participated in this study. On the other hand, Individual beliefs, lack of experiences, lack of training courses related to integrating technology are some observed barriers based on the finding results.

The purpose of Inan and Lowther (2010) study was to identify direct and indirect factors affect using and integrating laptops in schoolrooms as educational tools for learning. The sample of the study involved (379) teachers of 6th grade level in both private and public United States schools at Michigan areas. "Laptops in the K-12 classrooms: Exploring factors impacting instructional use" is a study was conducted to examine institutional factors and teacher factors such as: administrative technical support, educational training courses support and teachers' readiness or beliefs. The finding results proposed that all teachers have skills to use laptops as instructional tool, they strongly agree with integrating these tools in their classrooms and training courses for learning new information for using laptop are must. On the other hand, they beliefs that technology skills developments have a strong effects on beliefs and readiness of teachers.

Finally, Waring and Torrez (2010) have published a study themed "Using Digital Primary Sources to Teach Historical Perspective to Pre-service Teachers" in United States. (90) Elementary education majors were selected to participate in this study with different ages. The purpose of this study was focused on using digital educational resources in teaching process. Moreover, a wide range of digital primary sources used in teaching historical perspective at elementary classrooms. According to the results a majority of teachers have positive attitude towards their experience in using new educational technology and digital sources have a vast potential and effect for elementary classroom to providing students a multiple perspectives and digital skills, making social study more realistic, helps student to think better and understanding the lesson more clearly.

CHAPTER III

METHODOLOGY

Presentation

This chapter focuses on the detailed information about the research design. It gives information about the participants of the study and their experience. It also presents information about the materials that used to collect data, data collection procedures, validity and reliability and data analysis.

Research Design

A descriptive study has been used or utilized to examine whether geography teachers of the basic schools in Erbil city use educational aids and materials in their classes while teaching geography lesson. Survey method is a part of the descriptive designs which efforts to examine the attitudes through the answer of the participants (Jackson, 2009). And this survey method was used in this research study and quantitative data was collected through the use of questionnaire as the main tool for descriptive study design then the data was statistically analysed to answer the research questions.

Participants

Since this study aimed to determine the possibilities of using educational materials and aids by geography teachers, the population of this study consisted of (121) geography teachers only in the centre of Erbil city. The participants' background information consisted of three groups according to their gender, qualification and years of teaching experience. Also they were selected from seventh, eighth and ninth grads form basic school for the second academic year (2013-2014). Thus a total of 121 questionnaires were answered and returned back to the researcher.

The first group of participants were divided into two categories according to gender differentiation. 42 male teachers and 79 female teachers as shown in table 1.

Table 1. Distribution of Gender

Gender	Frequency	Percentage
Male	42	34.7
Female	79	65.3
Total	121	100

The second group of participants were put into three categories depending to qualification. There were 115 teachers having a bachelor's degree and six teachers having master's degree as presented in table 2.

Table 2. Distribution of Qualification

Qualification	Frequency	Percentage
Bachelor	115	95.0
Master	6	5.0
PhD	0	0
Other	0	0
Total	121	100

On the other hand, the third group of background information of participants were put into three categories depending to the years of teaching experience in teaching geography. There were 12 teachers with one to five years of experience and 50 teachers with five to 10 years of experience while 59 teachers over 10 years of experience as shown in table 3.

Table 3. Distribution of Years of Experience

Years of experience	Frequency	Percentage
Between (1-5) years	12	9.9
Between (5-10) years	50	41.3
Over (10) years	59	48.8
Total	121	100

Reliability and Validity

The scale Reliability Analysis degree has been used to find out the reliability of the teachers' questionnaire. The analysis was completed by using Alpha Model. Results of the factor analysis proposed medium reliability rates for all statement one by one and the overall Cronbach's Alpha score was .751 for the teachers' questionnaire. However, they were lower than the reported reliability coefficient in (Hung et al. 2009; Uzunboylu & Hürsen, 2011). Therefore, the questionnaires prove to be reliable and consistent.

However, for validity, two expert researchers checked the questionnaire and made some suggestion about the general format of the questionnaire. These suggestions were followed up and as well as changes in the format and language was done. There for the questionnaires proves to be a valid instrument.

Materials

For this present study a questionnaire has been used as a material for collecting the data. The questionnaire that is used in this study has been adapted from Salim Al-Kindy who has conducted a research on (2005) in Oman. The questionnaire consisted of three parts. In the first part, there were questions about background information of participants which aimed to collect data about demographic information of the respondents. In this respect they were asked to indicate their gender, qualification and years of teaching experience. In the second part, there were 14 Yes/No question

statements which respondents asked about possibility of using teaching material in the class that the study aimed to investigate. The last part was consisted of two sub question. One of them selected question which asked the teachers about availability of teaching devises and materials in their classrooms. In addition to that, one open-ended questions were make the researcher to investigate teachers opinion towards using other additional teaching means and their ability of using software and computer program in teaching process.

Procedure

For the present study, the researcher first took permission from Salim Alkindy the author of the questionnaire. Then, the researcher took permission from the Ministry of Education- Kurdistan Region government (MOE-KRG) in order to collecting data and distributes the questionnaire in the basic schools in the Erbil city (see appendix C and D).

Later, the questionnaires were handed to the participants who accepted to participate in the research. After explaining any unclear questions the data was collected back by the researcher immediately and the Statistical Package for Social Sciences (SPSS) was used for analyzing collected data.

Data Analysis

The quantitative analysis of data was conducted by using Statistical Package for Social Sciences (SPSS 20.0 for windows). The data was analyzed quantitatively. The descriptive statistic was used to find out the frequencies and the percentage among the different group of questionnaires demographic information within each variable. Chi-Square Test (X^2) test has been applied. It is applied with the purpose of looking into the relationship between variable classes. Additionally, Büyüköztürk (2005) stated that the questions in the survey individually verify a different situation from the survey which was given to gather data. This study tests whether there is a meaningful relationship between the analysis strategy and the questions in

the survey. Differences between demographic characteristics have also been analyzed in the study.

CHAPTER IV

FINDING AND DISCUSSIONS

Introduction

This chapter aims at presenting and discussing the results of the questionnaires that applied to 121 teachers from the Erbil basic schools in KRG government. This section also includes significant differences that have found by data analysis. Furthermore, results were analysed according to the teacher's opinions towards probability of using instructional materials during giving geography lessons in the classrooms. The statement analyses were carried out according to the research question showed and designed in chapter one.

Geography Teacher's Perception towards Possibility in Using IM in the Classrooms

The results of the research for the opinion of the geography teachers on the use of instructional materials in the classrooms during teaching the subject show that a high percentage of the respondents have not used educational materials and aids in their teaching process. The questions in table 4 were designed to find out the geography teachers' opinions towards possibility of using instructional materials.

In statement one, which was about whether the teachers always have used teaching aids in their teaching process, (86.0%) of the respondents (F = 104) answered "No" to this statement and (14.0 %, F = 17) of them answered "Yes". This outcome shows that a majority of the geographic teachers who teach in the Erbil basic schools, in general, haven't used instructional materials in their classrooms every time. Usta (2013) suggests that using instructional materials during teaching process have vast advantages. In other words, education means giving multi learning backgrounds which support learning process in the future. According to Rasul, Bukhsh and Batoolc (2011) instructions, tools, and aids can make the learning process

easier by helping students to use all their senses, to help students learn without memorization so that they will be able to observe the lesson by themselves.

Like the first question, (86.0 %) of the teachers (F = 104) replied "No" to the second question, whereas (14.0 %, F = 17) of them replied "Yes". This means most of the teachers do not keep any teaching means or tools in a dossier, and this is also an evidence of the lack of using instructional materials by teachers.

(98.3 %) replied "Yes" with (F = 119) for third question that is mean most of the teachers have a proper blackboard for teaching. According to many research and published articles blackboards or whiteboards are one of the most commonly and traditionally used teaching aids, but they are not sufficient tools for supporting learning process if it is used without other teaching tools and materials. Also, many researches talk about the advantages and disadvantages of blackboards.

Then, the data collected in the fourth question showed that, (95.9 %) of the respondents replied "No" (F = 116) that is mean they do not use radio programs in their teaching process. And respectively, in question fifth, (77.7 %) of the respondents replied "No" (F = 94), they do not use means from local environmental. Bianchi (2002) suggest that using radio/TV programs are enjoyable instructional materials especially for learning languages and also for connecting subjects to the real life by giving some examples which exist in the classrooms that help students learn properly. The radio/TV programs and local environmental aids are more common and successful teaching resources in the most part of the world.

As it can be seen in table 4, question sixth results show that, (67.8 %) of the teacher responded "No" (F = 82), and (32.2 %, F = 39) responded "Yes". This findings show that the majority of the geography teachers don't have this ability to develop teaching means and tools by themselves or they don't find resources to produce it.

After that, (28.1 %, F = 34) of the teachers replied "No" and (71.9 %, F = 81) replied "Yes" for the question "Do you always use the teaching

materials in your class teaching?" According to Gulbahar and Guven (2008), having access to all types of teaching materials will help teachers to find various ways of modifying their instructions and information to fit the diversified needs of learners.

For the eighth question in table 4, "Have you attended a training course regarding the usage of teaching means?" (57.9 %, F = 70) don't attend any training courses regarding the usage of teaching means (F = 51), while (42.1 %) attend the courses. Koehler and Mishra (2005) state that some teachers are not skilled in using teaching means and devises, they cannot also use new technology to enrich the learning and teaching experiences. Moreover, the majority of teachers are afraid of using computer. Therefore, taking training courses are very important to develop teaching skills.

In addition, a majority of the respondents (95.0 %) suggest that there is no coordination between their schools and others schools regarding the usage of technology in education (F = 115) while (5.0 %, F = 6) of the respondents replied "Yes" for the question 9. This finding shows that there is no administration supporting those schools. Also the results of question thirteen gives some evidence for lack of administration encouragement to use new technology in teaching, which (66.9 %, F = 81) of teachers replied "No" and (33.1 %) "Yes" in this statement (F = 40).

The results of question tenth and eleventh have similar because (92.6 %) of teachers responded "No" in question tenth (F = 112) and (90.9 %) of teachers responded "No" in question eleventh (F = 110). This finding shows that the levels of instructional materials aren't in good condition and many teaching devises are in old version. Aldbsy (2012) points out that one of the biggest obstacles that limits the use of teaching aids are administrative obstacles and lack of planning for repairing the educational equipment by the competent authorities or repair staffs.

On the other hand, (40.5 %, F = 49) of the teachers responded "No" as an answer for question twelfth which designed to find the ability of the geography teachers in using new technology in their teaching process, while

(59.5 %) responded "Yes" with a frequency score of 72. The results of this question indicate that more than half of respondents have this ability of using new technology but they were faced another obstacles in their teaching process which are related to lack of schools' educational materials and tools. Most teachers and trainers have been studying little information about how to use new technology and educational aids in the classrooms, this problem especially exists in these countries that are poor in training courses and in teaching the teachers how to use advanced technology. In many schools, techniques were used which were simple to set up. In brief, the Treating of this issue are coming from providing new educational aids and giving training courses to promote the use of instructional materials and teaching by new technology by the ministry of education (Miglino & Walker, 2010).

Finally, (79.3 %, F = 96) of the respondents replied "No" and (20.7 %) replied "Yes" (F= 25) that they use schools laboratories in their schools. Aktamis and Acar (2010) argued that the self- regulation learning skills of students have a huge difference before and after taking their courses in the laboratory especially in science subject. Moreover, student's knowledge and information were increased after they took courses in the laboratory.

Table 4. Geography Teacher's Perception towards Using IM in the Classrooms

St. No	Statements	N	No		Yes	
			Frequency	Percentages	Frequency	Percentages
1	Do you always use the teaching aids and means in your class teaching?	120	103	86.0	17	14.0
2	Do you keep a dossier regarding the means which you use?	121	104	86.0	17	14.0
3	Do you have a proper blackboard for teaching?	121	2	1.7	119	98.3
4	Do you use radio programs in teaching?	121	116	95.9	5	4.1
5	Do you use means from local environment in teaching?	121	94	77.7	27	22.3
6	Do you produce and develop your teaching means?	121	82	67.8	39	32.2
7	Do you always use the teaching materials in your class teaching?	121	34	28.1	87	71.9
8	Have you attended a training course regarding to usage of teaching means?	120	69	57.9	51	42.1
9	Is there any coordination between your school and other schools regarding to the usage of technology in educating?	121	115	95.0	6	5.0
10	Are all teaching means and material of your school in good condition?	121	112	92.6	9	7.4
11	Is the level of teaching materials in the school in an excellent condition?	121	110	90.9	11	9.1
12	Are you able to use technology in the teaching?	121	49	40.5	72	59.5
13	Is there any encouragement by the school administration to use the technology in teaching?	121	81	66.9	40	33.1
14	Do you use any of school laboratories in teaching?	121	96	79.3	25	20.7

Teachers' Perceptions on Using IM According to their Gender

The second problem of the research study was about to see "Are there any significant differences between teachers and their gender in using instructional materials." The results about significant relationship between geography teachers gender that participant in this study and their responses to the statements were examined, and shown in the following table. Over and above to that the number (N) of male and female, percentages is clarified. Furthermore, teachers were divided in to two groups (42) male and (79) female geography teachers that selected to participate in this study.

As it can be seen from table 5.1, (85.7%) of the male and (86.1%) of the female teachers replied "No" for statement one with chi-square test results (X^2 = 0.003, SD = 1, P = 0.957), that's mean there is no significant differences between the opinion of male and female teachers toward statement one, that is may be both of them faced same problem in using means and materials in their classrooms. This question also statistically is not significant at the level of P≤ 0.05.

Table 5.1. Results of Teachers' Perceptions on Statement One According to their Gender

Statement	Gender	No		Yes	
		N	Percentage	N	Percentage
1. Do you always use the means and materials in your class teaching?	Male	36	85.7	6	14.3
	Female	68	86.1	11	13.9

Furthermore, with the chi- square test results (X^2 = 1.331, SD = 1, P = 0.249) the (81.0%) of male and (88.6%) female teachers responded "No" for the second statement. The data obtained in table 5.2 indicates that there is not statically significant at (P ≤ 0.05) level, the opinion of the male and female teachers bear similarities and the percentages are close to each other. That is due to unavailability of teaching means and tools in most schools and all

teachers male and female didn't keep any dossier regarding to the used means and tools.

Table 5.2. Results of Teachers' Perceptions on Statement Two According to their Gender

Statement	Gender	No		Yes	
		N	Percentage	N	Percentage
2. Do you keep a dossier regarding the means which you use?	Male	34	81.0	8	19.0
	Female	70	88.6	9	11.4

Coming to the table 5.3, counter to the first and second statements (97.6%) of the male and (98.7%) of the female teachers (X^2 = 0.210, SD = 1, P = 0.647) responded "Yes" as an answer for the statement three which asked about having proper blackboards in the classrooms also the percentages are similar, because all schools was provided by new blackboards and every year the ministry of education will change all schools blackboards, may be it is very cheap or it is easy to change.

Table 5.3. Results of Teachers' Perceptions on Statement Three According to their Gender

Statement	Gender	No		Yes	
		N	Percentage	N	Percentage
3. Do you have a proper blackboard for teaching?	Male	1	2.4	41	97.6
	Female	1	1.3	78	98.7

On the other hand, in question four 95.2% of male and 96.2% of female teachers responded "No" for statements four (X^2 = 0.064, SD = 1, P = 0.800). The teachers received higher scores but also the percentages are

similar and there is no statically significant at ($P \leq 0.05$) level. This is due to lack of educational radio programs and lack of radio devices in the schools classrooms for this reason the opinion of male and female teachers are similar as shown in table 5.4.

Table 5.4. Results of Teachers' Perceptions on Statement Four According to their Gender

Statement	Gender	No		Yes	
		N	Percentage	N	Percentage
4. Do you use radio programs in teaching?	Male	40	95.2	2	4.8
	Female	76	96.2	3	3.8

By contrast, male teachers have different opinion compared to the female teachers concerning question five. The chi-square of 12.241 with SD = 1 indicates that this question is significant at P= 0.000 level. As it can be seen from table 5.5, (87.3%) female teachers responded "No" and (59.5%) of the male teachers also responded "No" as an answer of question five that is mean male teachers are used means from local environment in their teaching process more than female teachers. This statement is statistically significant that is may be due to following reasons. May be geography male teachers have more experiences, familiarity and knowledge than female teachers, because in many society male have more chance to attend training courses than female. Furthermore, may be female teachers were less interested and less confident than male students. Also, female teachers cannot access mean resources like male teachers. Moreover, Zhou and Xu (2007) elaborate that male teachers more presumably use instructional technology in learning and teaching process than female.

Table 5.5 Results of Teachers' Perceptions on Statement Five According to their Gender

Statement	Gender	No		Yes	
		N	Percentage	N	Percentage
5. Do you use means from local environment in teaching?	Male	25	59.5	17	40.5
	Female	69	87.3	10	12.7

On the other hand, the results of sixth question showed that the opinion of male and female teachers bear similarities. Which (61.9% of male) and (70.9% of female) responded "No" as shown in table 5.6. These statement indicate that the ability of producing and developing teaching means and instructional materials of male and female teachers are equal and these question are not statically significant at $P \leq 0.05$ level ($X^2 = 1.013$, SD= 1, P= 0.314) but it is not meaningful because the percentages are close to each other. This may be because both groups haven't this chance to attend training courses related to producing and developing instructional materials. And both groups faced same problems in using tools and means for supporting teaching process. Also may be because they think that if all schools are not provided by new technology and new instructional materials they cannot develop the classical teaching mean that are existed in their schoolrooms.

Table 5.6. Results of Teachers' Perceptions on Statement Six According to their Gender

Statement	Gender	No		Yes	
		N	Percentage	N	Percentage
6. Do you produce and develop your teaching means?	Male	26	61.9	16	38.1
	Female	56	70.9	23	29.1

Likewise, (64.3%) of the male teachers and (75.9%) of the female teachers replied "Yes" as an answer for question seven in table 5.7. In fact, the difference between opinion of both groups is not that much (X^2 = 1.846, SD = 1, P = 0.174). but we can indicate that female teachers are more interested to use teaching materials than male teachers. That's may be because the female teachers are more bounded in using textbooks and they thing connecting subject with the real life and using out said example will lead classrooms to un-controlling classrooms but male teachers may think using teaching materials are not necessary in teaching process compared with the teachers experience. Furthermore, Aldbsy (2012) in a research conducted at Damascus universities found that the use of educational materials in the education process is important for the male and female teachers at the same level. In addition, abstaining from instructional materials and aids is due to lack of availability of those tools in schools or the inability to use new technology by teachers so their responses were close to each other and did not show any statistically significant differences.

Table 5.7. Results of Teachers' Perceptions on Statement Seven According to their Gender

Statement	Gender	No		Yes	
		N	Percentage	N	Percentage
7. Do you always use the teaching materials in your class teaching?	Male	15	35.7	27	64.3
	Female	19	24.1	60	75.9

Regarding to finding in table 5.8, 64.3 % of the male geography teachers and 54.4% of the female geography teachers answered "No" for the eightieth question with the chi-square test result (X^2 = 1.092, SD = 1, P = 0.296). These result indicate that there is no statistically significant differences at P≤ 0.05 level and the percentages showed that female and male teachers haven't attend training courses related to usage of teaching means and instructional materials because they are close to each other.

Furthermore, both groups faced same problems which are lack of training courses and lack of financial supporting from ministry of education to improve their skills. On the other hand, may be because both groups think that training courses are not necessary for teaching process but providing instructional devices are more essential.

Table 5.8. Results of Teachers' Perceptions on Statement Eight According to their Gender

Statement	Gender	No		Yes	
		N	Percentage	N	Percentage
8. Have you attended a training course regarding to usage of teaching means?	Male	27	64.3	15	35.7
	Female	43	54.4	36	45.6

The result of next question in table 5.9 showed opinion of male and female teachers toward having any coordination between their schools and other schools regarding to the usage of technology in educating. (90.5%) of male and (97.5%) of female geography teachers responded "No" for this statement (X^2 = 2.845, SD = 1, P = 0.092). the percentages are also close to each other and this statements is statistically not significant that is mean there is no coordination between schools and the gender don't effected to having or not having organization between schools. That is may be because of lack in administrative managements in those schools or not having any plans for exchanging and sharing skills and experiences between schools. On the other hand, may be unavailability of new technology will affected to having any coordination between schools and teachers and lack of internet in the schools limited the relationships between those schools and other schools around the world.

Table 5.9. Results of Teachers' Perceptions on Statement Nine According to their Gender

Statement	Gender	No		Yes	
		N	Percentage	N	Percentage
9. Is there any coordination between your school and other schools regarding to the usage of technology in educating?	Male	38	90.5	4	9.5
	Female	77	97.5	2	2.5

Moreover, the chi-square results in question tenth as follow (X^2 = 4.381, SD = 1 and P = 0.036). These statement indicate that there is statistically significant at P≤ 0.05 level but it is not very meaningful because the percentages of the male (85.7%) and female (96.2%) geography teachers are also close to each other which responded "No" for the question that showed in table 5.10. This may be both male and female teachers faced same problems and all available teaching means and instructional materials in all schools are not in good condition and genders differences are not affected to the answer of this question. Furthermore, non-providing and non-servicing teaching mean led to having unusable teaching means.

Table 5.10. Results of Teachers' Perceptions on Statement Ten According to their Gender

Statement	Gender	No		Yes	
		N	Percentage	N	Percentage
10. Are all teaching means and material of your school in good condition?	Male	36	85.7	6	14.3
	Female	76	96.2	3	3.8

Likewise, the results in table 5.11 showed that the opinion of the male and female geography teachers bear similarities. (83.3%) male and (94.9%) female teachers replied "No" for this question. On the other hand, like previews question this question also indicate that there is statistically significant at P≤ 0.05 levels (X^2 = 4.467, SD = 1 and P = 0.035) also it is not meaningful because percentages are close to each other. Similarly, it may be because all available teaching means and instructional materials in all schools are not in excellent condition and genders differences are not affected to the answer of this question. Furthermore, also non-providing and non-servicing teaching mean led to having unusable teaching means and these schools are not up-to-data with the new technology due to lack of supporting from the ministry of education.

Table 5.11. Results of Teachers' Perceptions on Statement Eleven According to their Gender

Statement	Gender	No		Yes	
		N	Percentage	N	Percentage
11. Is the level of teaching materials in the school in an excellent condition?	Male	35	83.3	7	16.7
	Female	75	94.9	4	5.1

In contrast, as shown in table 5.12 the male geography teachers received higher percentage score (83.3%) than female geography teachers in statement "are you able to use technology in the teaching". The chi-square test of X^2 = 15.159, SD = 1 indicate that the male teachers think differently than the female teachers at P= 0.00 level. Moreover, this question is statistically significant this is may be because male teachers have more experiences, familiarity and knowledge in new technology than female teachers. However, examining gender differences provided some surprising data. Male teachers were more likely to believe that new technology was important than female teachers. Furthermore, it was the male teachers who wanted to integrate new technology into the curriculum that is may be male

teachers are more interested toward technology than female and males were generally more knowledgeable and receptive to computer uses than their female counterparts and there are a lot of research confirm this idea. Nyambane (2014) indicated that female teachers were integrating technology into their teaching less than the male teachers. However, studies concerning teachers' gender and new technology use have cited female teachers' low levels of computer use due to their limited technology access, skill, and interest. On the other hand, he believes that male teachers had relatively higher levels of computer attitude and ability before computer implementation or taking training courses, but there was no difference between males and females regarding to using computer and ability after taking training courses related to developing new technology skills.

Table 5.12. Results of Teachers' Perceptions on Statement Twelve According to their Gender

Statement	Gender	No		Yes	
		N	Percentage	N	Percentage
12. Are you able to use technology in the teaching?	Male	7	16.7	35	83.3
	Female	42	53.2	37	59.5

The answer of next question and the percentages results in table 5.13 showed that both male and female geography teachers doesn't seen any encouragements from the administration to use new instructional materials in teaching and there is no statistically significant deference at P≤ 0.05 level (X^2 = 0.585, SD = 1 and P = 0.444). Because (71.4%) of the male teachers and (64.6%) of the female teachers responded "No" and the percentages are close to each other. That is mean gender differences doesn't affected to the result because male and female teachers faced same problem and the problem is from managers of the schools not teachers. On the other hand, if all schools are faced lack of financial supports and lack of new instructional materials how they can encourage teachers whether male or female in using

new technology and new instructional tools and devices in their teaching process.

Table 5.13. Results of Teachers' Perceptions on Statement Thirteen According to their Gender

Statement	Gender	No		Yes	
		N	Percentage	N	Percentage
13. Is there any encouragement by the school administration to use the technology in teaching?	Male	30	71.4	12	28.6
	Female	51	64.6	28	35.4

Finally, similarly male and female geography teachers responded "No" for last question and the percentages are bear similarities. Because as showed in table 5.14, (76.2%) male and (81.0%) female teachers answer "No" and those percentages are also close to each other and there is no statistically significant at $P \leq 0.05$ level ($X^2 = 0.389$, SD = 1 and P = 0.533). That is may be because the time of lesson are very limit to take students and teach in the laboratories and may be all laboratories are not in good conditions also they need financial support and planning to improve laboratories skills especially for geography and science teachers because this two subject are related to real life and students cannot understand without connecting the subject with the real life. Moreover, it may be because most schools area is very smalls and there are no required rooms for adjusting laboratories rooms and if there is a laboratories room but lack of instructional devices and materials led all teachers to fail in adjusting lab for teaching process. Furthermore, teachers can bring with them many samples and examples by using computers and if the computers and data shows are exists the lab are not necessary for teaching geography lesson or history lesson.

Table 5.14. Results of Teachers' Perceptions on Statement Fourteen According to their Gender

Statement	Gender	No		Yes	
		N	Percentage	N	Percentage
14. Do you use any of school laboratories in teaching?	Male	32	76.2	10	23.8
	Female	64	81.0	15	19.0

Teachers' Perceptions on Using IM According to their Teaching Experience

Regarding the teachers' questionnaire responses in relation to the years of their professional experiences, the analyses of the questionnaire data revealed the following. The participant geography teachers of this study were classified into three groups as shown in following tables. 12 teachers with 1-5 years of teaching experience, 50 teachers with 5-10 years of teaching experience and 59 teachers with over 10 years of teaching experience. Moreover, the data was analysed for all 14 questions in relation to the years of experiences and the percentages of teachers' opinion toward questions was analysed also.

Firstly, the results of the chi-square test (X^2= 0.313, SD= 2, P= 0.855) showed that there are no statistically significant differences between teachers' perceptions toward question one in relation to their teaching experiences as shown in table 6.1. Because the (83.3%) of teachers between one to five years of teaching shared their views close to (88.0%) of group five to 10 years of teaching and (84.7%) of group over 10 years of teaching which replied "No" as an answer for this question. That's mean the years of experience are not affected to the results because may be all groups faces same problems in using educational materials in their teaching process which is unavailability of teaching devices and lack of instructional materials in all schools.

Table 6.1. Results of Teachers' Perceptions on Statement One According to their Years of Experiences

Statement	Years of Experiences	No		Yes	
		N	Percentage	N	Percentage
1. Do you always use the means and materials in your class teaching?	1-5	10	83.3	2	16.7
	5-10	44	88.0	6	12.0
	Over 10	50	84.7	9	15.3

Secondly, the percentage results of question two showed that (75.0%) of teachers with 1-5 years of experience responded "No" which is differ to (92.0%) of teachers with 5-10 years of experiences but it's close to (83%) of teachers with over 10 years of experiences as shown in table 6.2. On the other hand, this statement is not statistically significant at $P \leq 0.05$ level according to indicated data from chi-square test ($X^2 = 3.118$, SD= 2, P= 0.210). That is may be because younger teachers are more interested to keeping dossier for used means than oldest one. Moreover, practically all data are close to each other may be that is mean all teachers in all groups are faced same problems because if the instructional materials are not available how they can keep a dossier for it.

Table 6.2. Results of Teachers' Perceptions on Statement two According to their Years of Experiences

Statement	Years of Experiences	No		Yes	
		N	Percentage	N	Percentage
2. Do you keep a dossier regarding the means which you use?	1-5	9	75.0	3	25.0
	5-10	46	92.0	4	8.0
	Over 10	49	83.1	10	16.0

Coming to the table 6.3, counter to the first and second statements (100%) of the teachers group with 1-5 and 5-10 years of experience and (96%) of group over 10 years are responded "Yes" as an answer for the statement three which asked about having proper blackboards in the classrooms or not as shown in table 6.3 and the percentages are bear similarities. On the other hand, this statement is statistically not significant at P≤ 0.05 level (X^2= 2.137, SD= 2, P= 0.344). That is may be because all schools was provided by new blackboards and every year the ministry of education will change all schools blackboards, may be because it is very cheap or it is easy to change.

Table 6.3. Results of Teachers' Perceptions on Statement Three According to their Years of Experiences

Statement	Years of Experiences	No		Yes	
		N	Percentage	N	Percentage
3. Do you have a proper blackboard for teaching?	1-5	0	0	12	100.0
	5-10	0	0	50	100.0
	Over 10	2	3.4	57	96.6

As it can be seen in table 6.4, all percentages are close to each other and similar (100%) of group 1-5, (96.0%) of group 5-10 and (94.9%) of group over 10 years of experience responded "No" for this question with the chi-square (X^2= 0.655, SD= 2, P= 0.721) and there is not statistically significant at (P ≤ 0.05) level. This is due to lack of educational radio programs and lack of radio devices in the schools classrooms for this reason the opinion of all teacher groups are similar. On the other hand, may be radio programs are more useful in teaching languages than teaching social science like geography or history subject for this reason may be it was used by other teachers like English language teachers and more educational radio programs are not available in mother languages (Rahman & Panda, 2012).

Table 6.4. Results of Teachers' Perceptions on Statement Four According to their Years of Experiences

Statement	Years of Experiences	No		Yes	
		N	Percentage	N	Percentage
4. Do you use radio programs in teaching?	1-5	12	100.0	0	0
	5-10	48	96.0	2	4.0
	Over 10	56	94.9	3	5.1

Furthermore, (X^2= 6.289, SD= 2, P= 0.043) were the chi-square test results of question five and it is statistically significant at P≤ 0.05 level. There are some interested percentage results indicated in table 6.5 which are (50%) of teachers group with 1-5 years of experience, (78%) with 5-10 year and (83.1%) with over 10 years of experience are responded "No" for this question the value are not close to each other, that's mean younger teachers are more responsible toward usage of local environment in their teaching process than oldest teachers and it is not depended to the experiences but may be because the 1-5 group have more skills in using means from local environment comparing with the rest groups or may be younger teachers think that using this type of instructional materials are necessary for teaching process, they have more experience in web searching and finding online educational resources, they are more interested to use new teaching strategies and they are more acceptable to be up-to-data than other groups. On the other hand, using local environment as teaching materials means doing educational tripe or take students to the zoo or big industry and this activity need more financial supporting from the ministry of education and proper plan for all schools where it is almost non-existent in selected schools at Erbil city.

Table 6.5. Results of Teachers' Perceptions on Statement Five According to their Years of Experiences

Statement	Years of Experiences	No		Yes	
		N	Percentage	N	Percentage
5. Do you use means from local environment in teaching?	1-5	6	50.0	6	50.0
	5-10	39	78.0	11	22.0
	Over 10	49	83.1	10	16.9

As it can be seen in table 6.6, answer ratio of "No" gradually was increased with increasing years of experience (33.3%) of 1-5 group, (68.0%) of 5-10 group and (74.6%) of group over 10 years of experience. moreover the chi-square test data (X^2= 7,768, SD= 2, P= 0,021) indicate that all group think differently and there are statistically significant at P≤ 0.05 level. This may be because first group have understood that producing and developing teaching means and instructional materials enable them to avoid problems such as unavailability of teaching means and non-supporting from educational institute, since teachers can produce teaching mean from their environments by simple basic materials. But other group may think that government are responsible in providing instructional materials and it is administrative job not teachers job to produce and develop teaching means. On the other hand, may be if instructional materials were exist all responding answer were changed and all groups are replied "Yes" for this question. Furthermore, producing and developing teaching means also need experience and training courses because there are some teaching means are very complicate and most teachers are not enable to use it, especially mathematic lesson materials.

Table 6.6. Results of Teachers' Perceptions on Statement Six According to their Years of Experiences

Statement	Years of Experiences	No		Yes	
		N	Percentage	N	Percentage
6. Do you produce and develop your teaching means?	1-5	4	33.3	8	66.7
	5-10	34	68.0	16	32.0
	Over 10	44	74.6	15	25.4

As for statement seven, in this question teaching materials means printed materials like textbooks. From table 6.7 results indicate that the "Yes" answer were decreased with increasing years of teaching experiences starting by group 1-5 years which (83.3%), (78.0%) of group 5-10 years of experience and (64.4%) over 10 years of experience responded "Yes". If this statement is statistically not significant at $P \leq 0.05$ level ($X^2 = 3,337$, SD= 2, P= 0.189). But it's meaningful because from the percentages we can indicate that the younger teachers are relied on textbooks more than oldest teachers that is mean they don't have many experiences in curriculum and lesson subjects compared with that teachers with more years of experience. The majority of teachers with 1-5 years of experience are agree with using textbooks may be because they think that combination of new technology with textbooks will gave effective teaching process.

Table 6.7. Results of Teachers' Perceptions on Statement Seven According to their Years of Experiences

Statement	Years of Experiences	No		Yes	
		N	Percentage	N	Percentage
7. Do you always use the teaching materials in your class teaching?	1-5	2	16.7	10	83.3
	5-10	11	22.0	39	78.0
	Over 10	21	35.6	38	64.4

As it can be seen in table 6.8, the percentages results of all groups are bear similarities and close to each other (66.7% group 1-5, 56.0% group 5-10 and 57.6% over 10 years of experiences) of geography teachers responded "No" for this statement and it is not meaningful at P≤ 0.05 level (X^2= 0.454, SD= 2, P= 0.797). That is may be because all teachers face same problems which are lack of training courses related to new technology and new instructional materials. Also teachers in general are not trained or supported by the ministry of education to use the new instructional materials and new educational technology also they faced lack of educational facilities like equipment and new technology devises (Yildirim, 2008).

Table 6.8. Results of Teachers' Perceptions on Statement Eight According to their Years of Experiences

Statement	Years of Experiences	No		Yes	
		N	Percentage	N	Percentage
8. Have you attended a training course regarding to usage of teaching means	1-5	8	66.7	4	33.3
	5-10	28	56.0	22	44.0
	Over 10	34	57.6	25	42.4

Likewise, all results of geography teachers opinion with different years of experience in statement nine as showed in table 6.9, are close to each other whereas (100%) of group 1-5, (90%) of group 5-10 and (93.3%) of group over 10 years of experience responded "No" for this statements (X^2= 4.656, SD= 2, P= 0.097). that may be years of experience doesn't effect to having coordination between schools or not because all groups faced same problem in all schools. On the other hand, may be unavailability of new technology and new instructional means and materials will affected to having any coordination between schools and teachers.

Table 6.9. Results of Teachers' Perceptions on Statement Nine According to their Years of Experiences

Statement	Years of Experiences	No		Yes	
		N	Percentage	N	Percentage
9. Is there any coordination between your school and other schools regarding to the usage of technology in educating	1-5	12	100.0	0	0
	5-10	45	90.0	5	10.0
	Over 10	58	93.3	1	1.7

Additionally, in table 6.10, the answer ratio of all groups are bear similarities while (83.3%) of geography teachers with 1-5, (94.0%) of group 5-10 and (93.2%) of group over 10 years of experience responded "No" as an answer for question ten (X^2= 1.672, SD= 2, P= 0.433). that is mean all teachers with different experience have same opinion toward this question may be because teaching means and materials in all schools are not in good condition. For this reason the responses are close to each other.

Table 6.10. Results of Teachers' Perceptions on Statement Ten According to their Years of Experiences

Statement	Years of Experiences	No		Yes	
		N	Percentage	N	Percentage
10. Are all teaching means and material of your school in good condition?	1-5	10	83.3	2	16.7
	5-10	47	94.0	3	6.0
	Over 10	55	93.2	4	6.8

Similarly, and for the same reason the percentages of responses in question eleven are similar to question ten with chi-square test results (X2= 2.950, SD= 2, P= 0.229). It is also not statistically significant at P≤ 0.05 level.

Table 6.11. Results of Teachers' Perceptions on Statement Eleven According to their Years of Experiences

Statement	Years of Experiences	No		Yes	
		N	Percentage	N	Percentage
11. Is the level of teaching materials in the school in an excellent condition?	1-5	10	83.3	2	16.7
	5-10	48	96.0	2	4.0
	Over 10	52	88.1	7	11.9

Besides, there are interested results in question twelve as shown in table 6.12. The percentages ratio are decreased with increasing year of experience of geography teachers while (75%) of group 1-5 years, (62%) of group 5-10 years and (54.2%) of group over 10 years of experiences responded "Yes" as an answer for this question which ask all group to describe their abilities in using technology for teaching process. On the other hand, this question is statistically not significant at the level P≤ 0.05 (X^2= 0.580, SD= 2, P= 0.078). But it's meaningful because the opinions of teachers are different. This may be because younger teachers have more experience in using technology and adaption new instructional materials in their teaching process compared with group 5-10 years of experience and also this group have more technology skills comparing with group over 10 years of experiences. It may be also because the new generations of teachers are more familiar with new devices, tools and teaching than oldest one. It may be younger teachers (group 1-5 years of experience) are more likely and more interested to shear his/her idea with his/her students about new technology and online discussions by social networking service such as Facebook and Tweeter, as well as shearing ideas about how to use new

technologies in the classroom if its existed in their classrooms, when compared with teachers (5-1 years of experience) and teachers (over 10 years of experiences). In contrast, if teachers with more years of experience are trained by new technology courses may be they will be better than younger one because they will have two elements such as years of experiences and skills in using new technology. On the other hand, the solutions of these problems are coming from providing new educational means, new instructional materials, giving training courses to promote the use of instructional materials and teaching by new technology by the ministry of education (Miglino & Walker, 2010).

Table 6.12. Results of Teachers' Perceptions on Statement Twelve According to their Years of Experiences

Statement	Years of Experiences	No		Yes	
		N	Percentage	N	Percentage
12. Are you able to use technology in the teaching?	1-5	3	25.0	9	75.0
	5-10	19	38.0	31	62.0
	Over 10	27	45.7	32	54.2

Then, the results of statement thirteen are also close to each other and bear similarities because in all groups majority of geography teachers responded "No" for this question as it can be seen in table 6.13. Furthermore, it is also statistically not significant at P≤ 0.05 level (0.567, 2, 0.753). This is may be because all teachers have not encouraged by the managers of selected schools due to unavailability of instructional materials and new technology devises in their schools. Moreover, teaching experiences are not affected to the results of this question may be because encouragement by administrative are not related to the years of experiences.

Table 6.13. Results of Teachers' Perceptions on Statement Thirteen According to their Years of Experiences

Statement	Years of Experiences	No		Yes	
		N	Percentage	N	Percentage
13. Is there any encouragement by the school administration to use the technology in teaching?	1-5	9	75.0	3	25.0
	5-10	32	64.0	18	36.0
	Over 10	40	67.8	19	32.2

Finally, in table 6.14 most participants in all groups responded "No" as an answer of question fourteen and in general all percentages also are close to each other. And this statement is statically not significant according to following data (X^2= 1.465, SD= 2, P= 0.481). On the other hand, by concentration on the percentages result may be group over 10 years of experiences are used schools laboratories more than other groups that is due to more experiences or proper skills in using labs for teaching process. Moreover, these similarities may be are come back to unavailability of lab rooms in many schools or lack of lab materials.

Table 6.14. Results of Teachers' Perceptions on Statement Fourteen According to their Years of Experiences

Statement	Years of Experiences	No		Yes	
		N	Percentage	N	Percentage
14. Do you use any of school laboratories in teaching?	1-5	11	91.7	1	8.3
	5-10	40	80.0	10	20.0
	Over 10	45	76.3	14	23.7

But in fact all groups may have same problems and obstacles in using teaching means and instructional materials in all study cases, that is may be

due to the similarity of the problems, which are faced by geography teachers in Erbil province, such as unavailability of educational means in the schools, lack of educational facilities like equipment and new technology devises. New educational materials are difficult to use. Frequently it is too complicated and not available in mother languages. Also teachers in general are not trained or supported by the ministry of education to use the new instructional materials and new educational technology (Yildirim, 2008).

Availability of Instructional Materials in Erbil Schools

Table 7 illustrates the availability of instructional materials in the schools according to teachers' responses. The frequency and percentage results of selecting and unselecting items show that there is lack of most instructional materials in the schools expect of some traditional aids such as Calculator, Photographs & Images, Maps & Atlas and Three-dimensional Models, which are exists in many schools. Firstly, all teachers are unselected Camera, CD player, TV and Video player with the (100%) percentages of unselecting these materials, that is mean all schools don't have these instructional devices in their classrooms and they are not able to use it in their teaching process due to unavailability. On the other hand, (99.2%) of the teachers selected Maps and Atlas, (90.1%) selected Photographs and Images, (83.5%) selected Three-dimensional Models in the questionnaire paper that is may be because these educational means are available in all schools or they are traditional instructional materials and they are easy to provide, for this reasons all teachers are used it in their teaching process, (92.6%) of teachers selected on Calculator that is mean most teachers have Calculator in their teaching rooms may be because it is cheap and any teachers can buy it by himself. Furthermore, (22.1%) selected Transparency, (11.6%) selected Slides, (14.9%) selected Audio CD, (15.7%) selected Educating Movies, (15.7%) selected Computer, (16.5%) selected Data show, (24.0%) selected Overhead projector, (9.1%) selected Real Samples and (2.5%) selected Slide Projector. From these data ones can decided way all teachers cannot use those instructional materials and devises in their *teaching process, it is due to unavailability and lack of those teaching devises*

over than lack of skills and experience in new technology and new teaching devises. On the other hand, these results are a quite evidence for probability of un-using educational materials and tools by geography teachers in Erbil basic schools.

Table 7. Distribution of Availability of IM in the Schools

N	Instructional Materials & Devises	Selected		Unselected	
		Frequency	Percentage	Frequency	Percentage
1	Overhead projector	29	24.0	92	76.0
2	Camera	-	-	121	100.0
3	CD player	-	-	121	100.0
4	TV	-	-	121	100.0
5	Video player	-	-	121	100.0
6	Computer	19	15.7	102	84.0
7	Slide Projector	3	2.5	118	97.5
8	Calculator	112	92.6	9	7.4
9	Data show	20	16.5	101	83.5
10	Educating Movies	19	15.7	102	84.3
11	Maps & Atlas	120	99.2	1	0.8
12	Audio CD	18	14.9	103	85.1
13	Slides	14	11.6	107	88.4
14	Illustrations	70	57.9	51	42.1
15	Transparency	28	22.1	93	76.9
16	Photographs & Images	109	90.1	12	9.9
17	Real Samples	11	9.1	110	90.9
18	Three-dimensional Models	101	83.5	20	16.5

Computer Programs which are the Teachers are Qualified in and Able to Use it in Their Teaching Process

The data collected from the second part in question B of teachers' questionnaire showed that high percentages of the teachers (90.0 %) know Microsoft Words program. Then, quarter of the teachers (25.3 %) know PowerPoint presentation program. Finally, (13.7 %) of the participants know Microsoft Excel program. This finding indicates that most of the teachers do not have sufficient experience in computer software and they aren't able to use new educational device like computer because they are not comfortable and skilled in the use of new technology; therefore, taking training courses are very important to improve and develop teaching skills in using new educational means and new instructional materials.

CHAPTER V

CONCLUSION AND RECOMMENDATIONS

The Possibility of Using Instructional Materials by Geographic Teachers

As it mentioned in chapter one, a survey was conducted with the geography instructors from different basic schools in province of Erbil. Then, the study was designed to determine the possibility of using instructional materials in basic schools by geography teachers.

Regarding the first question about the possibility of using educational means and materials by geographic teachers, during giving lesson in the classrooms, several conclusions have been gained. First of all it was determined from the previous surveys that a majority of geography teachers of basic schools in province of Erbil followed a single type of instructional materials or haven't use colorful kinds throughout their teaching experiences. It has been concluded that using various educational means and materials will make teaching geography more challenging and effective as a schools subject in the coming years.

On the other hand, the results show that textbooks and course books are mostly used by geography teachers in their daily teaching process. The teachers had negative responses toward using instructional materials in teaching process. It is worth to be mentioned that these negative responses are not because of having opinion about instructional materials that these are unnecessary tools for teaching, that because they don't have been updated with modern methodology , and the essential issues such as lack of instructional materials in most basic schools, particularly the specialist type which related to geography subject like globes, new type of maps, real samples and three dimensional models are limited the use of teaching aid.

According to the responses, they were faced lack of new technology materials and devices like data shows, laptops, computers, overhead projectors, electronic illustrations, DVD and CD players, TV and camera. For

these reasons they cannot implement new education methods in their teaching process and they cannot up to data with the new technology.

When looking at the conclusions obtained through the first question. The results indicate that most teachers are unable to produce and develop instructional materials. Sometimes if instructional materials are not exists the teachers can produce from local environments some basic supporting aids and tools as a part of teaching process, but also many schools faced lack in coordination and cooperation between teachers and schools administrative and between teachers in same school or other schools.

Likewise, most teachers are not comfortable or trained to use instructional materials due to absence of training course and seminars for increasing teaching skills, experience and new technology ability. Moreover, Insufficiency in repairing and checking teaching devices and tools in the schools led to unsuccessfully teaching process.

Also, the schools administration has not encouraged teachers toward use of educational means due to lack of budget and lack of funding. On the other hand, Lack of having proper labs and new rooms that supported by new technology in many schools are the most fatal factors that led teachers to unwillingness in using educational means. Moreover, lack of sufficient time to prepare instructional materials is an extra barrier which the teachers have faced in teaching process. Because the lessons time in basic schools are (40 min), it very difficult for teachers to organize this time to teach the textbooks and use educational means in the same time.

Geography teachers expressed that one of the main obstacles to applying educational means and new technology is insufficiency of teachers' skills and knowledge to prepare materials and aids based on new technology. This finding shows that equipping schools with instructional materials is not enough for verify educational goals. Supplying educational means and materials, new technology and new educational devices into classrooms requires supporting and innovating in other sides of teaching like training courses.

The insufficiency of the expertise courses offered to educators and the lack of motivations for encouraging new technology are extra barriers to instructional materials usage. Teachers' attitudes toward using new technologies and new educational materials are also related to teachers' ability. This result is similar to many study which found that instructors requisite to identify the affordances and limitations of several educational technologies and devices and how these tools are worked. Also how specific educational tools and aids might support education goals in teaching process. They also need to know how to use new type of instructional materials and tools.

Furthermore, teaching through instructional means and materials is now insufficient in teaching geography at the basic schools in Kurdistan Region-Iraq. Additionally, the teachers should be encouraged with the activities that make the process of learning and teaching more successful and enjoyable.

Significant Differences between Teachers and Their Gender in Using Instructional Materials

When data was analysed to find out the significant differences between instructors who were grouped according their gender some conclusions were drowned.

The results of the study for gender differences showed that no statically significant differences was found between teachers and their gender in using educational materials. Furthermore, female teachers want to use new technology like; films, videos, computers and data shows in teaching process more than male teachers. Because using audio-visual aids are more enjoyable for the female teachers than male teachers. In term of the instructional materials use in relation to teachers' gender, the female geography teachers ascribed very little importance to the using of teaching materials than male teachers.

On the other hand, examining gender differences provided some surprising data. Male teachers were more likely to believe that new

technology was important than female teachers. Furthermore, it was the male teachers who wanted to integrate new technology into the curriculum that is may be male teachers are more interested toward technology than female and males were generally more knowledgeable and receptive to computer uses than their female counterparts and there are a lot of research confirm this idea. This study indicates that female teachers were integrating technology into their teaching less than the male teachers. However, studies concerning teachers' gender and new technology use have cited female teachers' low levels of computer use due to their limited technology access, skills, and interests.

But ratio of differences was very little. Based on the finding of this study, the male and female teachers were faced same difficulties in using instructional means and materials which are mentioned in the first section such as insufficiency of the expertise courses, lack of sufficient time to prepare educational means, lack of raw materials for production educational means, inadequate classrooms' design for new teaching devises and materials, lack of required teaching devices in most schools, the presence of routine, which complicates the process of acquisition of educational means and the goals of using instructional materials are same for male and female teachers. In spite of the fact, male teachers are more interested to using technology and new instructional materials but unavailability of teaching materials has more affected to un-using it in teaching process.

Significant Differences between Teachers According to their Experience in Using Instructional Materials

The third research question aimed to investigate the significant differences between teachers according to their years of teaching experience in using instructional materials.

As discussed in chapter IV, in general the finding results showed that there are no statistically significant differences between the teachers who have 1-5, 5-10 and over 10 years of teaching experience. It means that instructional materials were not used by teachers if there were differentiations

in years of experiences. That is because the instructors faced similar problem in using that tools and devices in their teaching process. In fact, some statements indicate statistically significant differences and as argued in previous chapter this is due to that facts younger teachers are more interested in using technology and they have more skills and experiences in using new instructional materials and new teaching devises.

On the other hands, given the focus on teachers' skills, information and experiences in using technology, the younger teachers (group 1-5 and 5-10 years of experiences) are more interested in using new technology, that is mean they are more interested in using interknit and online search engine. Moreover, it is interesting to measure the extent to which their teachers rely on search engines and online encyclopedias for collecting information and teaching process. The survey finds that the vast majority of teachers use technology to find information especially younger teachers. The latter is particularly notable, because both teachers group mentioned in focus groups that teachers commonly bar students from using technology in their school assignments. The survey also finds that almost all of the teachers surveyed use the technology "to do work or finding suitable strategies for their teaching process." The specific ways these teachers use the new technology as a tool for professional development and curricular, many ideas are discussed in chapter four and it is not necessary to repeat it in this chapter.

Furthermore, the traditional teachers that following the classical methods and refusing the modern methodology are considered the using of new educational approaches belittling the teachers' role and make him inactive in class. As we know the well-educated countries haven't got these high scores by using new educational methods and materials but they gained through various experiences with hard working and consultation or discussion. Most of the present teachers concentrate on change the past with new technological methods; they urge that the dialogue is main factor for education and learning. In the other hand in the most educated countries the Ministry of Education dedicated the certain budget to perform the best educational materials and new technical methods.

Recommendations

This research has found that the majority of geography teachers of basic schools in Kurdistan Region-Iraq haven't had ability and possibility in using instructional materials in their classrooms. Based on the conclusions of the study the following recommendations can be made:

1. Instructional materials should be a part of teaching process in every school. On the contrary, teachers cannot achieve educational goals, because these materials are very significant elements for teaching process.
2. Based on the findings of the study, teaching materials should be provided by the Ministry of education for the basic schools. If all types of instructional materials are not present in all schools, the teaching process will be unsuccessful process.
3. There is a need in Kurdistan Region-Iraq for localized instructional materials centers to provide support for schools and to prepare new technology requirements for all schools within a certain area.
4. According to findings of the study, the Ministry of education should be conduct and open trainer courses, workshops and seminars in the field of instructional materials for teachers and schools mangers to promote cooperative projects, rehabilitation in the field of instructional materials and sharing of experiences and expertise.
5. Teaching hours and lesson time should be maximized in the schools so that the teacher could use instructional materials during the lessons and the student could enjoy more than before.
6. Assign technicians and specialists in the field of instructional materials to contribute in production of educational means and materials, also to maintenance of educational equipment.
7. If the educational materials are exist the teachers should use it more than one time when needed, in order to help students understand better.
8. Keep up with technical development and follow-up developments in the field of educational means and materials.

9. Allocating budgets for educational institutions in order to provide and develop educational means. Also customize laboratory and new model rooms for using new learning devices and new technologies.
10. Ministry of education should take account that geography is very important subject, and should develop the curriculums of geography subject as a schools subject and should be up to data.

Suggestions for Further Research

Because this study was limited to geography teachers of basic schools in the province of Erbil through using questionnaire survey instrument for data collection, additional studies should be conducted in other province and secondary schools to be more general. Also should be conducted using mixed methods for collecting data. Furthermore additional qualitative techniques, interviews, group discussions and workshops, could be more useful to find out other aspects and factors of non-using instructional materials in the schools. The results showed that all teachers faced administrative and technical obstacles in using educational materials. Therefore, a relative study could be carried out to finding more about educational materials, also to find out more about using new technology in the field of teaching. As far as, it is not possible to generalize the collecting data in this study because the limitation was concerned. Therefore, a comparative study could be implemented to identify and compare the privet and state schools together in using educational means and materials. This allows both teachers and supervisors to know more about advantages and disadvantages of using educational means and materials, using new technology and the effect of new skilled teachers.

Conclusion

The conducted research on the effect of instructional materials on education development is far from achieving a definitive conclusion. This research tried to determine the possibility of using instructional materials by

geography teachers in Erbil schools, by examine the opinion of participant teachers toward using and availability of instructional materials in their schools classrooms. The study showed that there is a lack of experiences among geography teachers in using instructional materials and new technology, there is a lack of require instructional materials in most schools. Finally, researchers, teachers, schools' managers and Ministry of education benefit from this research in several ways.

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APPENDIXES

Appendix A

Teachers' Questionnaire

Dear Geography Teachers

You are invited to participate in MA thesis study entitled "**Determination the Possibility of Using Instructional Materials by Geography Teachers in Erbil Schools**". Before you give your consent to volunteer, we request you to go through the following information.

The research study is based on the completion of teachers' surveys. The aims of this questionnaire are to know and determine the possibility of using instructional materials in the Erbil basic schools. We will only collect enough personal data from you to conduct the research and it will be used for research purposes and kept confidential. Pleas fill the questionnaire precisely to help us and hope you share your thoughts and opinion.

Researcher: Sarwah Mohammed Shareef

Supervisor: Assist. Prof. Dr. Çiğdem Hürsen

University: Near East University – North Cyprus

Email: srwasharif@yahoo.com

Phone Number: (00964 750 463 66 98)

Part A: Background Information

1. Gender: Male ..... Female .....

2. Qualification

   Bachelors ..... Master (MA).....

   Doctor (PhD) ..... Other .....

3. Years of Teaching Experience

   From (1-5) years .....

   From (5-10) years .....

   (Over 10) years .....

Part B: Tick the proper field under the columns (Yes) or (No) for each of the following questions:

St. No	Statements	No	Yes
1	Do you always use the teaching aids and means in your class teaching?		
2	Do you keep a dossier regarding the means which you use?		
3	Do you have a proper blackboard for teaching?		
4	Do you use radio programs in teaching?		
5	Do you use means from local environment in teaching?		
6	Do you produce and develop your teaching means?		
7	Do you always use the teaching materials in your class teaching?		
8	Have you attended a training course regarding to usage of teaching means?		
9	Is there any coordination between your school and other schools regarding to the usage of technology in educating?		
10	Are all teaching means and material of your school in good condition?		
11	Is the level of teaching materials in the school in an excellent condition?		
12	Are you able to use technology in the teaching?		
13	Is there any encouragement by the school administration to use the technology in teaching?		
14	Do you use any of school laboratories in teaching?		

Part C:

1. Tick each Instructional Materials and Devices Available in your School which you use in Teaching:

( ) Overhead projector ( ) Camera ( ) CD player

( ) TV ( ) Video player ( ) Computer

( ) Slide Projector ( ) Calculator ( ) Data show

( ) Educating movies ( ) Maps ( ) Audio CD

( ) Photographs & images ( ) Illustrations ( ) Transparency

( ) Slides ( ) Real samples ( ) Three-dimensional models

2. Which computer programs you are qualified in and able to use in teaching?

.....

.....

.....

Appendix B

Teachers' questionnaire in Arabic Language

اختي المعلمة و اخي المعلم

نضع بين أيديكم هذا الاستبيان الذي يهدف الى (تحديد امكانيات استخدام المواد التعليمية من قبل معلمي الجغرافية في مدارس مدينة اربيل).

نحن حريصين على أخذ أرائكم ومقترحاتكم وذلك بتعبئة الاستبيان والإجابة على فقراته كاملة وذلك بوضع علامة (√) أمام كل فقرة من فقرات الاستبيان التي توافقون عليها ، كما أننا نرحب بأية تعليقات أو مقترحات أو وجهات نظر إضافية من شانها إن تساهم في خدمة البحث بصفتكم اصحاب الخبرة والممارسة الحقيقية والتي تتم مباشرة في الميدان التعليمي. وسوف تكون جميع هذه المعلومات مستخدمة في البحث العلمي لهذه الدراسة كما أنها ستكون في غاية السرية و نشكر حسن تعاونكم .

الباحثة : سروه محمد شريف

مشرفة البحث : مساعد بروفيسور دكتور جيدم هورسين

الجامعة : جامعة شرق الأدنى

ئيميل : srwasharif@yahoo.com

اولا : المعلومات الشخصية

1. الجنس ذكر ..... انثى.....

2. المؤهل التعليمي

بكالوريوس ..... ماجستير.....

دكتوراه ..... غير ذلك.....

3. سنوات الخدمة

من (1-5) سنوات .....

من (5-10) سنوات .....

اكثر من (10) سنوات .....

ثانيا: ضع علامة (√) في المكان المناسب تحت (نعم) أو (لا) أمام كل سؤال من الأسئلة التالية ؟

م	العبارة	الاستجابة	
		نعم	لا
1	هل تستعمل الوسائل التعليمية بشكل مستمر في تعليمك الصفي ؟		
2	هل تحتفظ بملف لانواع الوسائل التي تستعملها ؟		
3	هل لديك صبورة كافية و مناسبة للتعليم ؟		
4	هل تستعمل البرامج الاذاعية في التعليم ؟		
5	هل تستعمل وسائل البيئة المحلية في التعليم ؟		
6	هل تقوم باانتاج و تطوير وسائلك التعليمية ؟		
7	هل تستعمل عادة المواد التعليمية في غرفتك الصفية ؟		
8	هل اشتركتك في دورة تدريبية لاستعمال الوسائل التعليمية في التعليم ؟		
9	هل يوجد تنسيق احيانا بين مدرستك و المدارس الاخرى في مجال توظيف التقنية في خدمة التعليم ؟		
10	هل كل الوسائل التعليمية التي تحتاجها داخل المدرسة في حالة جيدة من الصيانة ؟		
11	هل مستوى الوسائل التعليمية داخل المدرسة في حالة ممتازة ؟		
12	هل انت قادر على توظيف التقنية في خدمة التعليم ؟		
13	هل ترى وجود تشجيع من ادارة المدرسة للمعلمين لتوظيف التقنية في خدمة التعليم ؟		
14	هل توظف احد مختبرات المدرسة في خدمة مادتك التعليمية ؟		

ثالثا:

1. ضع علامة (√) بجانب كل وسيلة تعليمية او اجهزة تعليمية متوفرة في المدرسة و تستخدمها في تخصصك:-

( ) عارض شرائح	( ) الة تصوير
( ) مسجل كاسيت	( ) جهاز تلفزيون
( ) فيديو	( ) حاسوب, كومبيوتر
( ) عارض المواد المعتمة	( ) عارض الشفافيات
( ) الة الحاسبة	( ) افلام تعليمية
( ) اشرطة سمعية,	( ) شرائح
( ) رسوم توضيحية	( ) نماذج مجسمة
( ) صور فوتوغرافية	( ) شفافيات
( ) عينات حقيقية	( ) خرائط

2. ماهي البرامج الحاسوبية التي تجيد استخدامها في الحاسوب و قادر على توضيفها في التعليم ؟

.....

.....

.....

.....

Appendix C

Permission Letter from Dr. Alkindy

Subject: Re: permission
From: salim alkindy (alkindy_salim@yahoo.com)
To: srwasharif@yahoo.com;
Date: Friday, 21 Feb 2014, 21:55

Dear Srwa

I am happy for you to use my inventory and chosen this topic for your thesis study

I would be interested to know what you find in your country

Best wishes

Dr. Salim,

From: Srwa Sharif <srwasharif@yahoo.com>
To: salim alkindy <alkindy_salim@yahoo.com>;
Sent: February 17, 2014 7:40 PM
Subject: permission

Dear Dr. salim alkindy

I am an Iraqi MA student in department of curriculum and instruction at the Near East University in Northern Cyprus. I have completed my coursework and have started working on my Thesis proposal. My thesis work is talk about (Determination the Possibility of Using Instructional Materials by Geography Teachers in Erbil Schools). I therefore wonder if you could grant me permission to use your inventory or survey for data collection in my country.

I should be most grateful if you could consider my request favourably.

Best regards

Appendix D

Approval Letter by Ministry of Education-KRG

هەرێمی کوردستان - عێراق
ئەنجومەنی وەزیران
وەزارەتی پەروەردە
بەڕێوەبەرایەتی گشتیی پلاندانانی پەروەردەیی

Kurdistan Regional Government
Council of Ministers
Ministry of Education

إقليم كوردستان - العراق
مجلس الوزراء
وزارة التربية
المديرية العامة للتخطيط التربوي

No: 2497
Date/10/2/2014

وەزارەتی پەروەردە
دەرکـراوە
ب.گ. دیوان

To/ Neareast University

Subject/ Permission Letter

We hereby confirm that Mrs. (sarwah Mohammed Shareef) has been granted the permission to distribute a questionnaire in Erbil Governerate for the purpose of collecting data so that it could be administered in her research to (121) teachers whom are specialized in Geography and are currently on the MoE's payment.

Regards

Yosuif O. Yosuif

D.G of educational Planning

Directorate of Planning
G.D of Educational Planning
Ministry of Education -KRG

Copy to

- G.D of educational planning/ statistics Dept.
- G.D of educational planning/ planning Dept.
- Circulation

Appendix F

Approval Letter by General Directorate of Education

هەرێمی کوردستان - عیراق
نەخوشەنی وەزیران
وەزارەتی پەروەردە
بەڕێوەبەرایەتی گشتی.پ.هەولێر
بەڕێوەبەرایەتی پەروەردەی ناوەندی هەولێر
پلان دانان

Kurdistan Regional Government
Council of Ministers
Ministry of Education

إقليم كوردستان - العراق
مجلس الوزراء
وزارة التربية
المديرية العامة لتربية اربيل
مديرية تربية مركز اربيل
التخطيط

ژمارە: ٤٠٠٠
رێکەوت: ١ / ٤ / ٢٠١٤ بەفرانبار /٢٣٤٤ کوردی

No:
Date: / /٢٠١٤

بۆ / بەڕێوەبەرایەتی گشتی پەروەردەی هەولێر / پلان دانان
بابەت / ئاسانکاری

داوا لە بەڕێزتان دەکەین هاوکاری و ئاسانکاری بکەن بۆ قوتابی خوێندنی بالا / ماستەر (سروە محمد شریف) لە وولاتی قبرص پسپۆری جوگرافیا کە تیایدا داوای ژمارەی مامۆستایانی پسپۆری جوگرافیا دەکات لە قوتابخانەکانی بنەڕەتی لە پەروەردەی ناوەندی هەولێر کە ژمارەکەیان (١٢١) مامۆستای فعلی کە ئێستا بەردەوامن لە وانە ووتنەوە ئەمەش بە مەبەستی کۆکردنەوەی زانیاری دەربارەی ماستەر نامەکەی و قوتابی پێویستی بە بەڵگەیەکی فەرمی هەیە بەزمانی ئینگلیزی کە پەسند کرابێت لە وەزارەتی پەروەردە .

لەگەڵ ڕێزماندا .....

حەمەامین احمد محمدامین
بەڕێوەبەری پەروەردە

وێنەیەک بۆ //
* پلان دانان .

Kurdistan Region - Erbil
Phone :

E- mail :info@kurdistan-moe.org

پلان دانان ..... علی عباس صالح