

# **The Effectiveness of Using a Multi-media Software in Developing Some Listening Skills Among Saudi Secondary School Students**

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## **Abstract**

The purpose of this research is to measure the effectiveness of a multi-media software for developing some listening skills among EFL Saudi secondary school students. To achieve this purpose, three tools were used. Firstly, a list of listening skills was collected from literature to determine the necessary listening skills needed by third year Saudi secondary school students. Secondly, a pre-post test was prepared and programmed to measure the effectiveness of the software in developing some listening skills. It was administered at the beginning and end of the experiment to measure students' listening skills. Thirdly, a multi-media software was designed, programmed, and administered by the researcher for developing students' listening skills. The sample of the research included sixty third year Saudi secondary school students (Boys and Girls). They were randomly selected to be included in the experimental group (N=30) and the control group (N=30) and randomly assigned to the two groups.

Findings of the research revealed that the software designed for the purpose of developing some listening skills has been effective in the development of specific listening skills for the third year Saudi secondary

school students. The t-test results revealed statistically significant differences between the post-test mean scores in all listening skills; namely, listening for the gist, listening for specific information, listening to guess the meaning of unfamiliar words from context, and listening to use the context to make predictions. The total scores was in favour of the experimental group.

## Introduction:

Listening comprehension activities provide students with the aural component of the target language to help them better hear the intricate sounds, enunciations, and content and develop their abilities to communicate with others in a target language. Educators try to help students enhance their listening skills by assigning them videotape, audiotape or computer-based activities to complete either at home or in the language lab setting. With these materials, students can practise hearing vocabulary words, sentence structures, and dialogues in the target language.

It is rare to find a secondary school these days that has not invested heavily in multimedia softwares to support instruction. Instructors feel the need and the desire to use computers to enhance instruction, but they are not always certain of the best way to proceed. The vast majority of instructors want to use computers to enhance learning .

In foreign language education, the goal of computer-assisted language learning (CALL) is not different from the goals of foreign language education in general: to provide students with resources and experiences that will provide instruction and practice in speaking, reading, writing, and listening to their target language.

The listening skill is the basis for understanding and for development of other language skills. Thus, it is equally or rather more important than other skills and must be taken into account by the teachers. It plays a significant role in communication and in language learning as well as cultural information which is necessary for a full understanding of the people and the language they are researching. (Rubin, 1994: 199-222; Dunkel, 1991: 431-457; Rost, 1990: 142-151).

Technology and language teaching have changed in recent years. Now, second language (L2) multimedia packages developed by researchers (e.g., Larson & Bush, 1992: 132-140; Otto & Pusack, 1992: 33-42) and by authors for textbook publishing companies (e.g., Amon, et al, 2000: 44-50; Heining-Boynton, et al, 1999: 62-70) provide students with various listening comprehension activities and learning aids. Researchers have also called for an increase in research on L2 listening

comprehension (e.g., Cauldwell, 1996: 521-528; Field, 1997: 51-52; Joiner, 1997: 77-120; Lynch, 1998: 3-19; Mendelsohn, 1998: 81-101) and an increase in research on technology to better understand how we can utilize the attributes of multimedia to enhance various aspects of language learning, including listening comprehension (e.g., Brett, 1995: 77-85, 1997: 39-53; Hoven, 1999: 88-103; Joiner, 1997: 77-120; Lynch, 1998: 3-19; Meskill, 1996: 179-201; Purdy, 1996: 82-89; Pusack & Otto, 1997: 1-46; Salaberry, 2001: 39-56).

Thus in many ways, the incorporation of the multimedia software into the foreign language classroom to develop the listening skill is required.

### **Statement of the Problem:**

Listening comprehension has been given the utmost attention worldwide. The Ministry of Education in the different series of English language courses has focused on listening comprehension as a skill most emphasized in the English language curriculum across the intermediate and secondary schools in public education. Therefore, researchers have been seeking ways and methods to achieve this objective; i.e., developing listening comprehension skills. Using computer-based instruction in the teaching of language has been harnessed as an effective and interesting method of delivery.

According to the study of Harris and Grandgenett (1993), computers have been effectively used in helping foreign as well as native language skills, listening comprehension included. These studies showed that:

- pacing is paid attention to and individual variations are taken care of in computer-based instruction mediums;
- immediate feedback and error correction is promptly provided;
- learners may come back and force to a specific learning point to no tedium or boredom, as long as he/she has access to the CBI software;
- CBI provides scaffolding for the learner, especially in a skill area as listening comprehension with its demanding tasks.

Previous research already scanned indicates a general weakness in the development of listening comprehension which is partially attributable to lack in or absence of using multi-media softwares in educational institutions which could be used to develop the aural ability. In this way, it is suggested that multimedia softwares may be essential in developing listening comprehension and performance on listening comprehension. Therefore, the present research seeks to find a solution to the problem of the weakness of secondary school students in listening skills via suggesting a multimedia software. Hence, the problem of the research can be stated in the following question : "What is the effectiveness of using a multimedia software in developing some listening skills of Saudi secondary school students?"

### **Significance of the Research:**

The present research provides:

- 1-A tool to identify some of the difficulties secondary school students have in listening.
- 2-A proposed software to be used in the multi-media language lab in order to develop the students' listening skills.
- 3-To enhance the communicative competence of the secondary school students and promote their listening skills so as to enrich and improve the teaching-learning processes when learning a second or foreign language.

### **Review of Literature:**

#### **-Studies Related to Multimedia Computer Assisted Language Learning (MCALL) and Listening Skills:**

MCALL annotations have proved to be effective in developing listening skills.

Several studies have shown the effectiveness of MCALL programmes comparing with the traditional methods in developing listening as follows:

Shen & Chung (1992:11-116) investigated the effects of English captioning used as knowledge of results feedback during English

listening comprehension practice for Taiwanese students. A total of 72 college freshmen at National Taiwan Normal University -36 with above average and 36 with below average English reading proficiency-participated in the study, using an interactive videodisc program 1 hour every 2 weeks over 10 weeks. Two versions of the program, one with captioning and one without, were used. The effects on listening comprehension were measured by both a treatment content-specific listening comprehension test and the listening comprehension sub-test of the Test of English as a Foreign Language (TOEFL). The results indicated that subjects in the captioning treatment had a significantly higher score on the treatment content-specific listening comprehension test. There was no significant difference between the groups on the TOEFL listening comprehension test which measures general comprehension skills. In addition, English reading ability had a significant impact on listening comprehension performance, with the subjects in the above average group performing better than those in the below average group. These results suggest that using captioning for specific content will improve learner comprehension within that content.

Sprayberry (1993:88-97) investigated the effectiveness of multimedia in improving listening comprehension of high school students researching second-year Spanish. Specific comprehension difficulties were found in recognizing linguistic and cultural implications, making guesses based on key words and phrases and understanding and responding appropriately to information given orally. A multimedia instructional approach was adopted with 50 randomly selected students. Students were receptive to and enthusiastic about the process and posttests indicated significant language achievement gains.

Herron (1994:387-395) tested the effect of a single advance organizer on listening comprehension and retention of information in a French FL video series. For the advance organizer plus video condition, the instructor wrote six sentences on the board, which outlined, in chronological order, the major scenes of a 10-minute video lesson. In the control condition, students watched the video. Results showed that students in the experimental group outperformed the control group.

Herron et al (1995:354-362) compared the effects of two advance organizers for introducing beginning FL students to video. The investigators found that a description-plus-pictures condition significantly improved listening comprehension over the description-only advance organizer condition.

Brett (1995:77-85) described a project that aimed to create a multimedia language learning application to develop the listening skills of learners using and needing English to communicate within a business context. The application aimed to fully exploit the ability of multimedia software to deliver video, sound, and text in variable of combinations. Multimedia, the computer-based delivery of video, audio, written text, graphics and the integration of these media proved to be a useful tool for developing listening skills such as listening for the gist and guessing the meaning from context.

Teichert (1996:509-517) compared student performance in listening

comprehension when three advance organizers plus video were used as opposed to when neither advance organizers nor video and audio tapes were used. Participants were 50 English-speaking college students. Students in the experimental group used illustration brain storming, and questions as advance organizers plus audio-and video tapes to gain access to the topic and to interact with each other. Findings indicated that students in the experimental group developed superior listening skills like inferring meaning from the speaker's discourse and predicting and guessing what might be said next.

Wen (1996:66-78) in this paper describes a computerized listening comprehension text created using an authoring system and designed for intermediate students of Chinese as a second language. The 12 lessons, enhanced with sound, animated visuals, and feedback, guide students in using appropriate top-down and bottom-up processing strategies to improve listening comprehension. Four listening skills are targeted: skimming; scanning; word inference; and distinguishing sounds. Lessons begin with pre-listening or advance organizer activities, then proceed to skimming, scanning, and word inference. A study using the materials had as subjects 11 American university students of Chinese. The students made steady progress through the semester, as indicated by gains in quiz

scores. The students appeared to use many visual cues and word knowledge in their listening comprehension, performing most tasks correctly when visual cues were present. However, item analysis suggests the students need to practice listening for main ideas and facts. Participants felt the interactive multimedia materials helped them, and appreciated certain features such as repetition of segments. By the end of the program, they tend to value top-down strategies and listen to meanings.

Brett (1997:39-53) investigated listening performance in computer-based multimedia environment. Learner success rates were compared on comprehension of English, as a second language (SL) and language recall tasks while using audio, video and multimedia. Results of performance on tasks reveal more effective comprehension and recall while using multimedia than either audio or video plus pen and paper.

Moreno and Mayer (2002:156-163) conducted three studies that investigated whether and under what conditions the addition of on-screen text would facilitate the learning of a narrated scientific multimedia explanation. Students were presented with an explanation about the process of lightning formation in the auditory alone (nonredundant) or auditory and visual (redundant) modalities. In Experiment 1, the effects of preceding the nonredundant or redundant explanation with a corresponding animation were examined. In Experiment 2, the effects of presenting the nonredundant or redundant explanation with a simultaneous or a preceding animation were compared. In Experiment 3, environmental sounds were added to the nonredundant or redundant explanation. Learning was measured by retention, transfer, and matching tests. Students better comprehended the explanation when the words were presented auditorily and visually rather than auditorily only, provided there was no other concurrent visual material. The overall pattern of results can be explained by a dual-processing model of working memory, which has implications for the design of multimedia instruction.

Jones (2003:41-65) in her study extends Mayer's (1997:1-19, 2001:144-162)

generative theory of multimedia learning and investigates under what conditions multimedia annotations can support listening comprehension in a second language. She highlights students' views on the effectiveness

of multimedia annotations (visual and verbal) in assisting them in their comprehension and acquisition of vocabulary from aural texts. English-speaking college students listened to a 2 min 20 sec historical account in French presented by a computer program. Participants were randomly assigned to one of four listening treatments: the aural text (a) with no annotations, (b) with only verbal annotations, (c) with only visual annotations, and (d) with both visual and verbal annotations. For purposes of this paper, 20 students were purposively selected to participate in interviews. Overall, students remembered word translations and recalled the passage best when they had selected both verbal and visual annotations while listening. Students' voices reflected these results and revealed that they should have options for viewing material in both a visual mode and a verbal mode in a multimedia listening comprehension environment. This study provides qualitative evidence for a generative theory of multimedia learning that suggests that the availability and the choice of visual and verbal annotations in listening comprehension activities enhances students' abilities to comprehend the material presented and to acquire vocabulary.

Wong (2005:25-43) in his paper argues that of the four English language skills that are often taught separately, listening requires more efforts from both course developers and learners. Unlike courses for other skills, which are mostly paper-based, listening courses are a combination of paper-based materials in the form of a course book, and sound-based materials in the form of audio on tapes/compact discs. However, learners get to keep only the course book, and can access the course audio only in class, which essentially prescribes teacher-centered lessons. Learner autonomy, if it is to take place at all, necessitates a different delivery mode. The web seems to be the perfect candidate for an alternative mode. Nielsen (2003:33-41) states that information technology is maturing. When it comes to the multimedia capabilities of the web, we can probably argue that the technology is mature. However, listening course developers are reluctant to venture to the web and are still clinging to traditional ways of conducting listening classes. This paper discusses issues behind educators' apparently slow uptake of advances in web technologies that can be incorporated into the teaching of listening skills

in a straightforward manner, and attempts to propose interim approaches as solutions.

### **Theoretical Background:**

#### **1- Effectiveness of Computer-Assisted Language Learning (CALL) Programmes**

Since the early 1960s, language teachers have witnessed dramatic changes in the ways that languages are taught. The focus of instruction has broadened from the teaching of discrete grammatical structures to the fostering of communicative ability. Together with the appearance of communicative approaches, the emergence of multimedia tools in language teaching has attracted the attention of teachers, academicians, educationalists and experts. From the opinions of those who have studied the role and function of the tools, it seems to be rather controversial and unlikely to produce a definite answer to the apparently simple question, "Do multimedia tools actually enhance and promote foreign language learning?"

Brinton (2001:459-475) supposed that multimedia tools serve as an important motivator in the language teaching process because "media materials can lend authenticity to the classroom situation, reinforcing for students the direct relation between the language classroom and the outside world". Hartnett (as cited in Brinton, 2001) shared that perspective by saying that media tools appeal to students' senses and help them process information, thus empowering their understanding of the target culture and increasing their motivation toward language learning, reinforcing the teaching points, and saving the teacher unnecessary explanation. Similar findings have been made public by Warschauer (1996), Lee (1997), Bush (1997), Beauvois (1998), and Meunier (1998) (as cited in Brauer, 2001).

The rationales of these researchers stem from the awareness that the emphasis in foreign language learning has moved from a traditional approach -one that focuses on the study of the language itself- to a communicative approach in which learners acquire both linguistic and cultural competence. The application of multimedia tools can foster this goal by creating "a learning environment wherein students practice their language skills and acquire target culture" (Brauer, 2001:130). Mollica

(as cited in Brinton, 2001) also suggested that media provide teachers with a means of presenting material in a time-efficient and compact manner, and of stimulating students' senses, thereby helping them to process information more readily. In other words, such media as audio and video equipment, computers and related software and Internet sources have been seen as effective tools to develop students' language competence so that they can interact with native speakers comfortably and successfully in real-life situations. Some other studies showed the use of media has helped involve students more integrally in the learning process and to facilitate language learning by making it a more authentic, meaningful process (Nunan, 1999; Sperling, 1996; Warschauer, 1995 (as cited in Brinton, 2001).

CALL programmes have been proved to be effective in language classroom.

They have many advantages to students as reported by Leidy et al. (1980) who stated that one of the advantages is that the student can move at his own pace. The computer thus provides the time needed for individualized instruction that the teacher can not afford. An examination of some studies leads to several generalizations about effectiveness of CALL (Bangert et al. 1985:59-68; Niemic & Walberg 1986:144-159; Chen, 1996:111-116; Lingzhu, 2003:32-48).

Higgins (1984:192-198) supported this view by concluding that programmed learning and computer are a great aid to individualizing student learning. Further confirmation to the conclusion of Higgins is Eltigi (1993:73-85).

Concerning language skills, Computer-Assisted Language Learning (CALL) programmes are effective in developing them as reported by Herrmann (1985) who stated that using Computer-Assisted Language Learning (CALL) programs in the English as a second language (SL), classroom improves the opportunities for integrating all language skills, listening, speaking, reading and writing. This is supported by Jung (1988:135-142), and Levy & Farrugia (1988:68-75).

Making use of modern technology in teaching listening comprehension. Ahmad (2002), in an empirical study, attempted to diagnose causes of the low level of secondary-school students' listening comprehension. The researcher attributed this to neglecting such a skill in teaching, using traditional methods of teaching and neglecting English activities in English courses in all grade levels. Based on the main findings of such a diagnostic study, the researcher designed a programme using the video as an advance organizer in order to develop listening comprehension of secondary school students. The study was conducted on two groups selected randomly from a secondary school in Syria. The experimental group studied using the video as an advance organizer assisting learning. The control group studied according to the dictates of the traditional method. Statistical analyses of the data indicated the superiority of the experimental group over the control one. This verified the effectiveness of the program in rendering what it was intended for.

Faid (2007) in his study designed a program based on multimedia to develop some functional writing skills for faculty of commerce students at Beni-Sueif university. To achieve this purpose needs assessment was designed, a pre- post test was prepared to measure the effectiveness of the multimedia program the pre-post test was designed and administered at the beginning and at the end of the experiment to measure the students' functional writing skills. An ESP multimedia program was designed and programmed for developing the students' functional writing skills. The sample of the study was selected randomly from fourth year faculty of commerce students at Beni-Sueif university. The sample included forty students for the experimental group and forty students for the control group. Results of the study have shown that there were no statistical significant differences between the performance of the experimental and control groups in the pre-administration of the functional writing test. Statistically significant differences were found at 0.01 level between the mean scores of the experimental and control groups in the post administration of the functional writing test in favor of the experimental group. There were no statistically significant differences between the mean scores of the control group students in the pre and post administration of the functional writing test. These results showed that the program proved to be effective in developing some functional writing

skills. Conclusions, Recommendations and suggestions for further studies were presented.

Some studies compared call programs with traditional methods, one of them is Lozano (1985) who investigated the relative effectiveness of two new teaching technologies, television and computer with traditional language lab. Results indicated that T.V. and computer were more effective in teaching language.

Dunkel (1991) focused on how the computer teaches, tests, and fosters learning than on the kinds of traditional methods, compared to a traditional textbook, a CALL program can provide immediate feedback on the correctness of the learner's response. Nagata (1995) stated that recent advances in computational linguistics, however, have led to the development of natural language processing programs that allow the computer to actually parses student responses grammatically and give feedback that is far more detailed and informative than was formerly possible. As a result, the computer can analyze errors precisely and informative than was formerly possible. As a result, the computer can analyze errors precisely and provide pertinent information about the type of error that has been made this is intelligent feedback.

According to Underwood (1984:7-20) one of the major criticism of most language laboratory activities has been their emphasis on practice without feedback. Incorporating the computer's feedback capabilities into many of these activities could permit for more instructionally valuable learning experiences to emerge.

## **2-Multimedia Computer-Assisted Language Learning (MCALL)**

Increase in the speed, storage capacity and memory -size of computers, together with developments in the sophistication of software now enable computers to deliver video, sound, text and graphics. Using these combinations of communication elements is usually called multimedia (Brett, 1995:77-85).

Watts (1997:1-8) defined it as applications which seek to create exploratory learning environments in which digital sound, image, text, and video components are fully integrated through computer platforms

and placed under the direct control of users who are able to follow individual pathways through data stores.

Another definition is reported by Schwier & Misanchuk, (1993:182-201) who defined multimedia instruction as environments that are instructional, multiple-sourced, segmented, intentionally designed, and coherent.

Tolhurst (1995:21-26) described it as the use of two or more media to present information, the media that can be used include text, still or animated graphics, movie segments, sounds, and music. Kozma (1991:179-211) suggests that the term has been in use for several decades, and it is only recently that it has been linked to the use of computer technology; specifically he says until recently the term has meant the use of several media devices, sometimes in a coordinated fashion (e.g., synchronized slides with audio tape, perhaps supplemented by video). However, advances in technology have combined these media so that information previously delivered by several devices is now integrated into one device.

Joiner in Bush & Terry (1997:77-120) stated the most obvious advantage of computer-assisted multimedia applications is instantaneous random-access to any sentence or segment on sound source, usually a CD, ROM or videodisc, and the ability to replay and relisten with ease to difficult passages. Interactive multimedia programs facilitate listening in additional ways by adding text and providing a number of easily accessible on line helps believed to contribute to the comprehension process.

Willetts (1992) reported that the computer alone has many capabilities for enhancing language learning, but when combined with other technologies, the possibilities multiply for information retrieval, interactive audio-and video-assisted learning, use of local area networks, use of long distance computer networks, and exploitation of satellite broadcasts. Some technologies lend themselves better to acquisition of certain language skills than others. Addition of audio capabilities to personal computers makes them miniature multimedia units for teaching and testing active listening skills. The visual component, when added to oral component, is useful for developing

listening skills and creating cultural awareness. Interactive video enhances development and practice of all language skills.

According to Andrews (1997:65-72) multimedia projects can effectively reinforce learning and are a fun way for students to practise language skills. Multimedia computer programmes allow learners not only to manage their listening by controlling the fleeting stream of oral speech but also to maximize their comprehension by receiving messages through multifold channels of perception and in multi form motion video, music, and environmental and speech sounds (Joiner, in Bush and Terry; 1997, 111). Biemiller (1997:34-43) added that multimedia computer program that can be produced in a few hours by faculty or language laboratory staff could change the way colleges teach foreign languages. New programs allow exercises to be custom tailored to suit student interests and skill levels and to use authentic texts in new ways.

According to Underwood (1989:7-20) authentic material allows the students to hear a much more real act of communication with all the interactional features which are normally not found in scripted materials. It gives them a true representation of real, spontaneous speech with its hesitations, false starts and mistakes which will make them more able to cope with real life speech when they meet it outside the learning situation. If students have the opportunity to listen to a range of authentic texts they will sample many different voices with varying accents, both social and regional.

### **3- MCALL in Developing Listening Skills :Background:**

The development of the listening skill has always been of prime concern to language teachers. Listening assumes increased importance as not only is it a key language and communication skill in its own right, but it also provides a channel through which new language can be received and may become "in take" (Brett, 1997:39-53). Making listening comprehension an integral and active part of the FL

classroom curriculum is a major concern for many researchers (Byrnes, 1984:317-329; Geddes, 1982:183-220; Dunkel 1986:99-106; Weisserieder, 1987:531-537; Valdes et al, 1988:415-425; Feyten, 1991:173-180). Thus, the application of multimedia to develop listening skill is required.

Listening skill will be discussed focusing more on the use of authentic materials along with multimedia features and the benefit of these two aspects.

### **3-1- Listening Process:**

The nature of the listening process can be clearly illustrated from the perspective of native language research, it is a process of filtering raw speech into short-term memory. The filtered information then is organized according to their respective fields to produce coherent understanding of the whole subject, and this outcome is only what is stored in long-term memory thus, listening is an activity to create meaning of speech rather than speech its original form (Richard, 1983:219-240). This is in agreement with Stevick (1984:281-283) who stated that listening is a process of generating images that might include sensory, emotional, temporal and verbal that come together in memory.

According to Byrnes (1984:317-329) listening plays an important role in building a student's understanding which is then crucial for developing of other language skills. Students develop these skills in a cyclic form rather than linear. They need to refer to precedent information. This new information received by the students is then organized to produce better understanding (Lund, 1990:105-115, and Richard, 1983:219-240).

Hadley (1993:127-151) on the other hand, illustrates listening as a problem solving activity where initially the student will form a hypothesis about what they hear later several inferences are formulated to build the intended meaning of the speech. After having processed all the ambiguities and uncertainties, students will finally retain the exact required meaning of that speech.

Ghalib (1998) stated that the listening process can be generally explained in different phases, firstly, students will use their background knowledge and schemata in order to understand the delivered speech. The goals set by the speaker then will help students in focusing more towards the intended meaning, the literal meaning of the speech is then translated into the intended message originally required by the speaker. These messages are the only ones finally retained and stored in memory.

Nanda (1989) had a different view, he identified four steps in the listening process:

- 1)Hearing
- 2)Understanding
- 3)Evaluating
- 4)Responding

From the first step to the fourth, the process involves successively the more hearing of sounds represented by words and sentences at the sensory level, perceptive recognition of meaning framed by the physical and emotional context, sizing up the totality of the communication either for acceptance or rejection and finally making a response consistent with one's nature and the demands of the situation.

### **3-2- Listening Skills:**

According to James (1982) there are six components of listening comprehension which are:

- 1-The sonic realization or actual physical hearing of language.
- 2-The segmental/supra segmental form (phoneme distinction).
- 3-The musical pitch and rhythm.
- 4-Lexical phrasing.
- 5-The purpose of the message intended by the speaker.
- 6-The actualization of the message in the listener.

Listening skills have been classified in different ways by different researchers.

One of them is Harvey (1984:31-41) who stated that listening skills include; perceiving blur of sound, perceiving sound contrasts and perceiving contrasts in language units. Other skills including predication, listening for specific information, and listening for gist are presented by Sheerin (1987:127-131) and Hanafy (2005).

One of the principal skills which listeners must develop if they are to participate successfully in conversation is the ability to identify the topic of conversation, so they can make a relevant response (Anderson & Lynch, 1988, 40). According to Nanda (1989:138-149) there are four essential skills involved in listening; these are:

- |                           |                           |
|---------------------------|---------------------------|
| 1- Perception of sounds.  | 2-Accuracy of sequencing. |
| 3-Gaining of meaning and; | 4-Utilizing the meaning.  |

These basic listening skills are capable of elaboration in terms of some subordinate skills as follows:

- a- Recalling word meaning.
- b- Guessing the meaning of unknown words.
- c- Noting and details of ideas conveyed.
- d- Following directions.
- e- Distinguishing the main and subsidiary ideas.
- f- Analyzing the levels of relevance of the ideas,
- g- Following clues to get at the attitude of the speaker, to the topic or subject concerned
- h- Assessing the speaker's point of view and comparing that with one's own and those of others.
- i- Making inferences, deductions, and drawing conclusions.
- j- Separating the subjective and the objective facts and opinions.
- k- Detecting the emotional temper.
- l- Detecting absurdities and outbursts.
- m- Transforming verbal symbol to visual, tactile and other sense experiences revived or created.

Abdl-Nasser (2006) in his study concluded ten listening comprehension skill deemed necessary for third year prep school pupils namely;

- Determining the main idea in a spoken discourse.
- Suggesting a suitable title for a spoken discourse.
- Distinguishing between true and false ideas.
- Guessing what's missing in a sentence through the context.
- Replacing a word with another one having the same meaning.
- Distinguishing between facts and opinions.
- Deriving new words from available ones.
- Grouping words together based on the shared meaning.
- Drawing inferences from what's spoken.
- Summarizing in one's own words what's spoken

Nation (1990:122-141) stated that just as learning vocabulary by guessing from context is important in reading so is it important in listening. An advantage that occurs in guessing from context in listening is that a skilled and sensitive speaker can easily provide extra information if necessary to help with guessing of an unknown

word

Rost (1990) asserted that instruction in listening is most profitably geared toward the development of these more global skills:

- 1-Emphasizing perception:
- 2-Recognizing prominence within utterances.
- 3-Emphasizing prominence interpretation.
- 4-Formulating prepositional sense for a speaker's utterance.
- 5-Formulating a conceptual framework that links utterance.
- 6-Interpreting plausible intention(s) of the speaker in making the utterance.

Researchers in the field of reading and listening identified certain general similarities between the two processes. According to Alderson & Urquhart (1984:98-112).

- 1- Both reading and listening comprehension involve the perception and interpretation of discourse.
- 2- Both reading and listening require interactive work and active participation of the comprehension who must possess overall language competence as well as background knowledge and draw upon them in order to decode the message.

Reves & Levine (1988:327-336) presented the following: The ability to understand the main idea as well as details or facts. The ability to identify the relationships among units within discourse:

- To make inferences.
- To evaluate the purpose and scope of the discourse.

Harvey (1984:31-41) also presented some shared reading and listening skills:

- a- Identifying word meanings.
- b- Identifying recombined sentences.
- c- Selecting principal points.
- d- Using effective interpretation.
- e- Making cognitive transfer to real life situation.

Berger & Perfetti (1977:7-16) concluded from their investigation of reading skill, that reading comprehension and listening comprehension are closely related; the two receptive skills depend on the same general language processing skills.

After this survey that has been done by the researcher some of these skills will be developed through the application of a MCALL software.

#### **4- Multimedia Annotations and Listening Skills:**

Computer-assisted multimedia programmes designed to promote listening skills offer users multiple meaning sources including full-motion video, written texts and graphics, and variety of online helps such as dictionaries, comprehension hints, and maps all of which can be accessed instantaneously through computer control (Joiner in Bush &

Terry (1997,92). Schwartz (1995:225-226) asserted that computers can now be interfaced with video machines a display video directly through CD-ROM technology, and CALL programs can be created to help students to develop listening skills through listening comprehension activities where the computer can replay segments when a student's response is in appropriate. Underwood (1989, 96) stated that the use of video recording enables teachers to point out the many visual clues which listeners use to help them understand what they hear. Students will see whether the speakers are young or old, happy or angry, requesting or complaining. They will see the physical context in which the speakers are speaking. They will see the facial expressions and gestures and, in some instances, the reactions of those whom the speaker is addressing. Even if the case of a recorded lecture, perhaps, students will still benefit from being able to see the gestures and facial expression and lip movements of the speaker. All of these factors are important not only because they help the students to build up the kind of knowledge of context which is important for successful listening. He added that for listening practice, video seems to combine most of the advantages of using audio recordings with the main advantage of live presentation; i.e. that the speaker and the immediate context in which he/she is speaking can be seen.

According to Baltzer (1996:33-35) a more recent solution to the problem of engaging students' attention during listening exercises incorporates the latest developments in multimedia technology. A multimedia computer-one that contains a CD-ROM drive, a sound card, and a pair of speakers or headphones, is designed to combine visual images and sound. The images can be still pictures, motion pictures, animation, graphics or charts, musical notation, or text, perhaps the greatest advantage of multi-media is its ability to grab and hold students' attention. Multi-media presentations are inherently motivating for students.

### **Contributions of Previous Researches**

Related studies helped in many respects:

- to define well the frontiers of the field of study.
- to pose the questions in perspective.

- to formulate the hypotheses.
- to define the concepts used in the study.
- to prepare the theoretical background of the study.
- to choose the suitable methods for the study.
- The material used in the present study was selected and prepared in the light of such studies.
- The experimental design and statistical methods were selected in the light of such studies.
- The sample of the study was selected in the light of such studies.
- Listening comprehension skills were determined in the light of such studies. (Abdl-Nasser, 2006; Nada,1989).
- The instruments of the study were designed in the light of such studies.
- The studies put the research in a proper position to interpret the significance of the results of the study.
- Recommendations and suggestions for further studies were forwarded in the light of such studies

#### **Objectives of the Research:**

This research aims at:

1. Determining the necessary listening skills needed by secondary school students.
2. Proposing a listening multi-media software that may improve the listening skills among secondary school students .
3. Checking the effectiveness of the multi-media software on enhancing performance on the listening skills of secondary school students.

#### **Questions of the Research:**

The research seeks to answer the following questions:

"What listening skills should third year Saudi secondary school students acquire?"

- To what extent do the students possess these skills?
- What is the effectiveness of the listening multi-media software in developing these skills mostly needed by Saudi secondary school students?

### **Hypotheses of the Research:**

There are statistically significant differences between the post- test mean scores of the experimental group and the control group on the overall listening skills test scores in favour of the experimental group at the 0.01 level.

The following sub-hypotheses were formulated:

- There are statistically significant differences between the post-test mean scores of the experimental group and the control group on the ability of listening for the gist in favour of the experimental group at the 0.01 level.
- There are statistically significant differences between the post-test mean scores of the experimental group and the control group on the ability of listening for specific information in favour of the experimental group at the 0.01 level.
- There are statistically significant differences between the post-test mean scores of the experimental group and the control group on the ability of guessing the meaning of unfamiliar words from the context in favour of the experimental group at the 0.01 level.
- There are statistically significant differences between the post-test mean scores of the experimental group and the control group on the ability of using the context to make predictions in favour of the experimental group at the 0.01 level.

### **Methodology and Instrumentation of the Research:**

#### **a- Method of Research**

This research manipulated the quasi-experimental method. The experiment took 6 weeks to finish. The pre-test was administered to students in the first week. Then, the experimental group was trained on

the proposed software by the researcher for four weeks (one session a week). Then the post-test was administered in the sixth week.

The quasi-experimental design used in this research is of the type: Pre-test Post-test Control Group Design. This design involves one treatment group; the experimental group which receives training on some aural skills deemed necessary as part of their linguistic development, and the other group is the control group which doesn't receive any treatment. The experimental design included comparison between the control and experimental groups on the computerized pre-test of listening skills, and comparison between the control and the experimental groups in the computerized post-test of listening skills.

#### **b- Sample of the Research:**

The sample of this research was selected randomly from the third year Saudi secondary schools students. It included (60) students (boys and girls) assigned randomly either to the experimental group (N=30) or the control group (N=30).

#### **c- Instruments of the Research:**

The following tools were prepared and used:

##### **1- A list of listening skills collected by the researcher:**

The list was developed to answer the research first sub-question, and judged by the jury members. The final format of the listening skills list included: ability to listen for the gist, ability to listen for specific information, ability to guess the meaning of unfamiliar words from context and ability to use the context to make predictions. (See Appendix 1)

##### **2- A Pre-Post computerized listening skills test prepared by the researcher:**

Based on the list of listening skills cited in the literature and its order cited by the jury, the researcher developed a pre-test. Its initial form consisted of (20) items distributed to cover (4) listening skills. After submitting the pre-test to the jury, it consisted of ( 16 ) items distributed to cover (4) listening skills. Each listening skill is measured by four items, two items have their listening tasks in the form of multiple choice questions and the other two items have their listening tasks in True/False

(T/F) statements. The test is divided into two sections, every section has eight items.

### **3- A Multimedia Listening Software:**

Listening tasks were selected by the researcher to suit the secondary school students, as they have little exposure to authentic language. These tasks give them the chance to develop their listening skills. The tasks were in authentic language for: focusing on comprehension rather than on structure, stressing the idea of foreign language spoken in real situations by native speakers, and requiring the learners not to focus on every word or every detail but rather to listen selectively for key information. For these reasons, the tasks focus on how to listen for: key information, idea extraction, predication, and guessing.

The software consists of four sessions and every session aims at developing one listening skill. Students listen to ten listening texts in each session, each session follows three stages:

#### **(1)Pre-Listening Stage:**

In this stage, they are given a definition of the skill they are going to have training on.

#### **(2)During Listening Stage:**

- a- They listen to two examples to guide them about the specified listening skill. The listening examples have their answers explained. The answer explains why a certain choice is correct and why a statement is considered true or false.
- b- Then they begin listening to the first five listening texts in part I and their listening tasks about the specified skill are in the form of Multiple Choice Questions, and they should click on the correct choice. The listening tasks could be part of talks or conversations.
- c- Then they begin listening to the second five listening texts in part II and their listening tasks of the specified skill are in the form of True/False Statements. They should click (T) if it's correct, and (F) if it's wrong.

d-They can listen to the listening texts more than one time, just click on the icon (Listen).

e-After they click on (Next) and (Confirm Answer) the next screen will be presented.

**(3)Post-Listening Stage:**

a- They are provided with a key answer in order to check their comprehension.

b- They are engaged in free discussion with the researcher to explain the answers.

**Procedures of the Research**

The following procedures were followed to complete the present research to achieve its stated objectives:

1-Reviewing literature concerning listening skills and multimedia and language learning.

2-Preparing a list of listening skills.

3-Selecting the sample for the research.

4-Preparing the pre-post computerized listening test and judged by the jury.

5-Administering the pre-test of listening skills to a sample of third year Saudi secondary school students.This sample consisted of 60 students.

6-Exposing the sample of the research (the experimental group) to the multi-media listening software.The number of sessions included in the software is four sessions. Each session lasts for one hour and half.

7-Administering the post-test of the computerized listening skills to the sample of the research (the experimental group) at the end of the multi-media listening software.

8-Correcting and recording the subjects' scores on the post-test of listening skills.

9-Conducting the statistical treatment and extraction of findings and conclusions;

10-Presenting the recommendations for the research.

## Results of the Research

The main purpose of this research was to investigate the effectiveness of a multi-media listening skills software focusing on developing specific listening skills needed by third year Saudi secondary schools students. The results of this research are presented in two main sections: comparison between the control and experimental groups on the pretest; and comparison between the control and experimental groups on the post-test. The data obtained on the pre-test was statistically analyzed using t-test format of Independent-samples, by means of the SPSS statistical analysis program.

### Comparison Between the Control and the Experimental Groups on the Pre-test:

Before the experiment, the researcher administered the control and the experimental groups the pre-test to check that the two groups were at the same level. At the beginning of the experiment, the researcher compared their mean scores on the pre-test. Table (1) shows the t-test for the differences between the experimental and control groups on the pre-test.

**Table (1): t-values for the mean differences between the experimental and control groups scores on the pre-listening comprehension test.**

| Skills                                              | Experimental G<br>Pre-Test |        | Control G<br>Pre-Test |        | t-<br>Value | Stud.<br>No. | LS*             |
|-----------------------------------------------------|----------------------------|--------|-----------------------|--------|-------------|--------------|-----------------|
|                                                     | M                          | SD     | M                     | SD     |             |              |                 |
| 1-Ability to listen for the gist                    | 0.2667                     | 0.4498 | 0.2000                | 0.4068 | 0.602       | 30           | Not Significant |
| 2- Ability to listen for specific information       | 0.4667                     | 0.5074 | 0.3667                | 0.4901 | 0.776       | 30           |                 |
| 3- Ability to guess the meaning of unfamiliar words | 0.3000                     | 0.4661 | 0.2667                | 0.4498 | 0.282       | 30           |                 |
| 4- Ability to use the context to make predictions   | 0.3333                     | 0.4795 | 0.2000                | 0.4068 | 1.161       | 30           |                 |
| 5- Total score                                      | 1.0000                     | 0.9469 | 1.0667                | 1.0807 | 0.254       | 30           |                 |

\*LS=Level of significance

This table shows that there were no statistically significant differences between the mean scores of the experimental and control groups on the pre-test, on any listening skill namely, listening for the gist, listening for specific information, guessing the meaning of unfamiliar words from context, and using the context to make predictions. This means that the two groups were at the same level at the beginning of the experiment. It can be noticed from this table that the mean scores of both groups are low.

#### **Comparison Between the Experimental and Control Groups on the Post-test:**

The main hypothesis of this research is: "There are statistically significant differences between the post-test mean scores of the experimental group and control group in favour of the experimental group". To test this hypothesis, the mean scores were statistically compared as shown in table (2) as follows.

**Table (2): t-values for the mean differences between the experimental and control groups on the post- listening comprehension test**

| Skills                                              | Experimental G<br>Post-Test |        | Control G<br>Post-Test |        | t-<br>Value | Stud.<br>No. | LS*  |
|-----------------------------------------------------|-----------------------------|--------|------------------------|--------|-------------|--------------|------|
|                                                     | M                           | SD     | M                      | SD     |             |              |      |
| 1- Ability to listen for the gist                   | 3.3333                      | 0.4795 | 1.6000                 | 0.5632 | 12.835      | 30           | 0.01 |
| 2- Ability to listen for specific information       | 3.4333                      | 0.5040 | 1.4333                 | 0.5683 | 14.421      | 30           |      |
| 3- Ability to guess the meaning of unfamiliar words | 3.3667                      | 0.4901 | 1.5000                 | 0.5724 | 13.568      | 30           |      |
| 4- Ability to use the context to make predictions   | 3.1667                      | 0.3790 | 1.4667                 | 0.5713 | 13.580      | 30           |      |
| 5- Total score                                      | 13.1333                     | 0.9732 | 5.8333                 | 2.2141 | 16.532      | 30           |      |

\*LS=Level of significance

This table shows that there were statistically significant differences between the mean scores on the post-test of both experimental and control groups on listening skills; namely, listening for the gist, listening for specific information, guessing the meaning of unfamiliar words from context, and using the context to make predictions and total scores in favour of the experimental group .

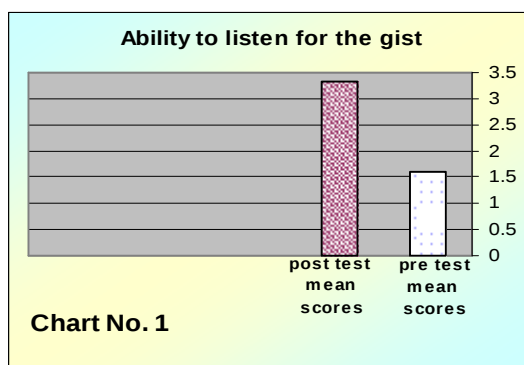
### **Interpretation of the Results:**

#### **Results of the pre-test:**

The pre-test mean scores table (1) revealed that there were no significant differences between the experimental and control groups on any skill or on the total listening skills test. It is noticed that students' scores in both groups are very low. This result gave an answer to the first sub-questions: "To what extend do secondary school students posses these skills?" This result was expected since students in both experimental and control groups had no previous training on listening skills.

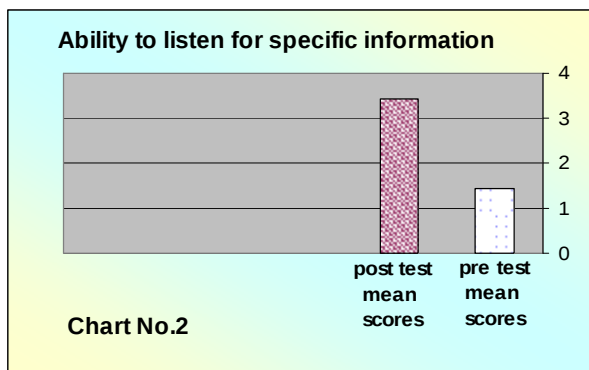
#### **Results of the post-test:**

(1) Results showed that there were statistically significant differences at 0.01 level between the post-test mean scores of the experimental and control groups on the ability to listen for the gist. These differences were in favour of the experimental group. This indicates the effectiveness of the proposed software in developing this skill. This proves the validity of sub-hypothesis one (See Chart No.1).

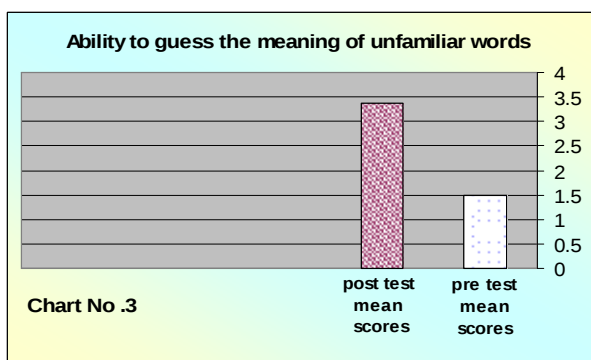


(2) Results revealed that there were significant statistical differences at 0.01 level between the post-test mean scores of experimental and

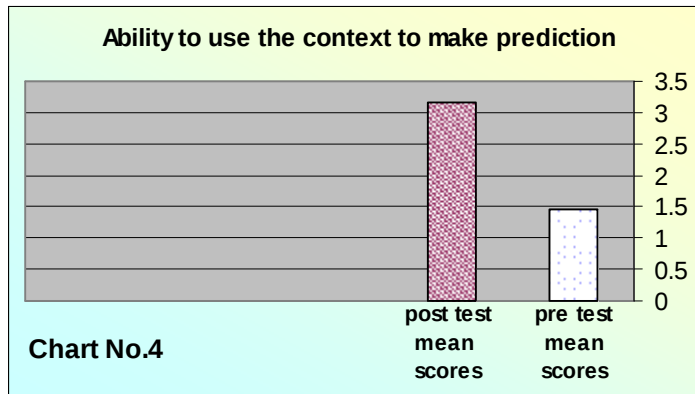
control groups on the ability to listen for specific information. This result was also expected as this skill was considered to be the second important skill according to the results of the list administration. This verifies the validity of sub-hypothesis two (See Chart No.2).



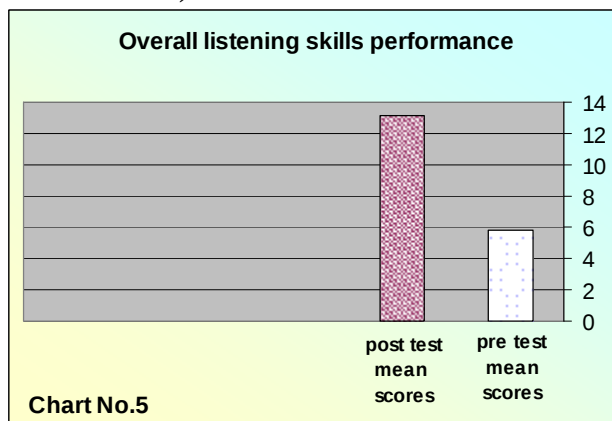
(3) Results revealed that there were significant statistical differences at 0.01 level between the post-test mean scores of the experimental and control groups on the ability to guess the meaning of unfamiliar words from context. These differences were in favour of the experimental groups. This indicates the effectiveness of the proposed software in developing this skill. This result was expected as the proposed software included many listening tasks which were designed for developing this skill. This proves the validity of sub-hypothesis three (See Chart No.3).



(4) Results revealed that there were significant statistical differences at 0.01 levels between the post-test mean scores of the experimental and control groups on the ability to use the context to make predictions, in favour of the experimental groups. This indicates the effectiveness of the proposed software in developing this skill. This proves the validity of sub-hypothesis four (See Chart No.4).



(5) It was evident that there were significant differences at 0.01 level between the post-test mean scores of the experimental and control groups on the total listening comprehension test in favour of the experimental group. This was due to the use of the proposed multimedia listening skills software (See Chart No.5).



The above results gave the answer to the question: "What is the effectiveness of a multimedia listening skills software in developing listening skills of the secondary school students?" So, the improvement in the performance of the experimental group in the post-test indicates the effectiveness of the proposed software. The results of this research are in accord with some previous studies which asserted that listening skills in computer multimedia environment reveal more effective comprehension compared to pen and paper and traditional methods of developing listening. (e.g., Sprayberry, 1993; Wen, 1996; Brett, 1997; Herron, 1994; Herron et al, 1995; Brett, 1995; Teichert, 1996; Jones, Linda, .2003; Nielsen,.2003; Wong, 2005).

The first step towards developing learner's skills was by raising their awareness of the differences between written and spoken language. The researcher highlights pauses fillers such as (oh,yeah,um,yes). Less complex structures such as (it is....I did). So the software was appropriate to the level of the subjects' comprehension. They felt that they were listening to the language as it is naturally used in real situations. In other words, the teacher's responsibility is to raise students' awareness of the characteristics of spoken language.

The listening software developed the students' comprehension of the communicative function of the message. The subjects were allowed to listen to understand not to focus their attention on every word. The main goal of this software was comprehension. The subjects were trained on how to comprehend specific information. So their attention was directed toward the comprehension of information found in the listening message, i.e., to the proposed software:

- Learners were trained to focus on the whole message not on discrete parts .
- The techniques and activities used by the researcher in the proposed listening software helped the experimental group students develop their listening comprehension .
- Using authentic materials and varied tasks raised students motivation and interest. Students in the experimental group expressed their interest in the content of the software.

- The multimedia software made students focus on the comprehension of the communicative content of the message.
- The software focused on a limited number of skills (only four). This helped the students concentrate their efforts and have enough time for practicing these skills.

### **Conclusions of the Research:**

- 1-The software has proved to be effective in developing some listening skills among EFL secondary school students.
- 2-Superiority of students' performance in the post-test measures is due to the effective use of multimedia annotations and the variety of activities that have been used.
- 3-Shy or inhibited students can be greatly benefited by individualization; student-centered learning. Computer can offer new opportunities for better language learning.
- 4-The use of MCALL software improves EFL secondary school students listening skills as well as their academic achievement.
- 5-This multimedia software supports the communicative language teaching approach in an interactive environment.
- 6- Linguistic accuracy is maintained throughout the software.
- 7- This software would be used in a language or computer lab by the class as a whole, with the instructor exploiting the authentic and contextual language situations and/or preparing the learners for further practice.
- 8- The importance of multimedia in the improvement of oral production deals with intonation and rhythm.
- 9- Multimedia allows us to use the best combination of media to present compelling information suited to specific situations and allow user-control over how and when that information is accessed.

- 10- Teachers should be ready to allow students ask questions at any time during the class sessions. This dynamics may foster students' collaboration and cooperation learning styles.
- 11- The multimedia software can be a useful English language tool that raises students' motivation by increasing their confidence, encouraging them and broadening their listening and oral skills.
- 12- Multimedia is a great treasure for teachers and students because it has exactly what you need, whether it is for an activity in class, and activity out of class, to practice a specific skill, or to develop a specific language topic.

**Recommendations of the Research:**

- 1-Multimedia technology would facilitate the effective development of listening skills more than the traditional tools of cassettes.
- 2-Presenting and using the software by the inservice teachers in teaching and developing their students' listening skills.
- 3-Making use of multimedia annotations by teachers for developing listening.
- 4-Training inservice and preservice teachers to learn how to use CALL and MCALL programmes in their teaching.
- 6-Time devoted to computer courses for EFL secondary school students should be increased.
- 7-Adaptation of a new method for teaching listening means that; using the computer programmes instead of the traditional methods.
- 8-Individualization for teaching language skills should be adopted.
- 9-The listening skills should be selected for each secondary year.
- 10-The skills on this software should be included in an overall listening comprehension skills.Each year with what it suits from the skills.
- 11-Students should be allowed to express the difficulties they face on researching their listening courses.

- 12-Listening skill courses should include textual schemata, verbal stress and the manner in which the input is organized to influence how the listening material is interpreted.
- 13-Teachers should consider brain storming, discussion as an introduction to the topic, focus on stress and intonation, utilization of background knowledge, motivation, and introduction of new words. These factors aid listening comprehension.
- 14-Software materials that are prepared for developing listening comprehension are recommended to display an awareness of the trend towards more integration of listening with speaking, pronunciation, speaking plus writing and reading.
- 15-Multimedia should be used in organizing listening material;multimedia would help students learn at their own pace and they provide sufficient visual cues and immediate feedback for the learners.

#### **Suggestions for Further Research:**

The research suggests the following topics for further study:

- 1-Research is needed to determine the important role played by computer in the acquisition of language in the early stages of learning.
- 2- Studies are needed in the application of some computer effective annotations in developing comprehension skills.
- 3-Research is needed for developing technical literacy for EFL learners.
- 4-Research is needed for developing computer culture for students with poor language skills.
- 5-Further studies are needed to investigate the relationship between language skills and multimedia annotations in students' learning of second language.
- 6-Studies are needed to determine the effective role played by CALL programmes in evaluating students' progress.

- 7-Studies are needed to compare between the two methods of teaching FL  
"Traditional method & Individualized Instruction."
- 8-Studies are needed to compare between the two kinds of feedback;  
teacher's feed back & computer feedback in FL learning.
- 9-Research is needed to investigate the role played by authentic materials  
in developing listening comprehension among EFL learners.
- 10-Investigating a hierarchy of listening comprehension skills for all  
kinds of learners' levels: pre-university level and university level.
- 11-Preparing authentic materials for the development of more complex  
listening skill for secondary school students.
- 12-Determining variables affecting use and choice of authentic materials  
at different levels of comprehension.
- 13-Designing web-based listening programs to facilitate effective  
language learning and teaching .

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