



# **Using The Ubiquitous Learning Tools for Developing EFL Prospective Teachers' listening Comprehension and Digital Literacy skills**

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### ABSTRACT

This study is an attempt to examine the effectiveness of using the ubiquitous learning tools (Podcast and TED Talks) to develop listening comprehension and digital literacy skills among EFL prospective teachers. Seventy-four scholars from third -year prospective teachers enrolled in the English Section at the Faculty of Education, Benha University were randomly allocated into two groups: an experimental group [N=39] and a control group [N=35]. Instruments of the study comprised an EFL listening comprehension test and digital literacy scale. The participants were administered to a listening comprehension test and digital literacy scale both before and after the treatment. For 15 sessions, members in the experimental group were accomplished a training based on the ubiquitous learning tools (Podcast and TED Talks) to develop their EFL listening comprehension and digital literacy skills while those in the control group received their regular instruction. Results of the study showed that the experimental group students outperformed their control group peers; they showed high levels of listening comprehension as well as digital literacy skills compared to their control peers. Consequently, it could be concluded that the usage of ubiquitous learning tools has a significant effect on third -year prospective at the English section, Faculty of Education. It was recommended to use the ubiquitous learning tools into listening instruction programs.

**Key words:** Ubiquitous learning tools (Podcast &TED Talks), EFL listening comprehension skills, digital literacy, EFL Prospective Teachers.

## أستخدام أدوات التعلم المنتشر لتنمية مهارات الفهم الاستماعي والتنوير الرقمي باللغة الإنجليزية كلغة أجنبية لدى الطلاب المعلمين

تهدف الدراسة الى بيان مدى فاعلية أستخدم أدوات التعلم المنتشر لتنمية مهارات الفهم الاستماعي باللغة الإنجليزية كلغة أجنبية والتنوير الرقمي لدى الطلاب المعلمين بشعبة اللغة الإنجليزية بكلية التربية جامعة بنها. أستخدمت الباحثة المنهج شبه التجريبي والقياس القبلي والبعدى لعينة الدراسة من طلاب الفرقة الثالثة بشعبة اللغة الإنجليزية بكلية التربية جامعة بنها والتي تم اختيارهم عشوائياً وتقسيمهم الى مجموعتين: المجموعة الضابطة وبلغ عددها خمسة وثلاثون طالبا والمجموعة التجريبية وبلغ قوامها تسعة وثلاثون طالبا. أشتملت أدوات الدراسة على إختبار لمهارات الفهم الاستماعي للغة الإنجليزية كلغة أجنبية ومقياس للتنوير الرقمي. تم أختبار المجموعتين فى مهارات الفهم الاستماعي باللغة الإنجليزية كلغة أجنبية قبل المعالجة وبعد الأنتهاء من تطبيقها. تم تدريب المجموعة التجريبية خلال خمسة عشر جلسة من البرنامج لتنمية مهارات الفهم الاستماعي والتنوير الرقمي ؛ بينما تلقى طلاب المجموعة الضابطة التدريس بالطريقة التقليدية . أشارت نتائج الدراسة إلى تفوق طلاب المجموعة التجريبية الذين تلقوا التدريب على ادوات التعلم المنتشر والمتمثل فى أستخدم المدونات الصوتية ومحادثات تيد على أقرانهم فى المجموعة الضابطة. فقد أظهروا مستويات عالية من مهارات الفهم الاستماعي والتنوير الرقمي مقارنة بأقرانهم فى المجموعة الضابطة. وتؤكد هذه النتائج على مدى فاعلية أستخدم أدوات التعلم المنتشر ( المدونات الصوتية ومحادثات تيد) لتنمية مهارات الفهم الاستماعي باللغة الانجليزية كلغة اجنبية والتنوير الرقمي لدى طلاب الفرقة الثالثة شعبة اللغة الإنجليزية بكلية التربية. تم تقديم توصيات لإستخدام أدوات التعلم المنتشر فى برامج تنمية الأستماع باللغة الانجليزية كلغة أجنبية.

**الكلمات المفتاحية:** أدوات التعلم المنتشر(المدونات الصوتية-محادثات تيد)- مهارات الفهم الاستماعي باللغة الإنجليزية كلغة أجنبية- التنوير الرقمي-الطلاب المعلمين.

### 1. Introduction

Listening is an important skill for communication. It plays a dynamic role in daily lives. There are many purposes for listening such as entertaining, academic achievement or gaining essential data. Moreover, it is vital for learning languages as it enables EFL learners to attain accomplishment in collaborating with others.

Listening as a process involves the active participation of an individual to get the message from the sender (Harmer,2007). Listening comprehension is considered as a substantial important skill in language instruction. It encompasses the capacity to comprehend the spoken language. Moreover, it involves identifying the sound patterns and variations of utterance,

besides gaining the connotation of words and the whole syntax of sentences. Therefore, teachers should guide students to understand actual speech to contend with real listening circumstances (Wagner, 2010).

Educational institutions have widely adopted modern means of technology to keep in line with the requirements of the 21st century and to increase the performance of education from excellent to pioneering. Thus, the instruction of languages changed from out-of-date literacy manipulation to mixings with technology to engage learners and attain their attention spans for language (Alabsi, 2020& Roblyer 2015). Mutually EFL teachers and students required to be digitally literate. Digital literacy is beneficial for at least three main objectives. First, it inspires scholars to ensure own consideration in their community. Second, it stimulates reasoning and sensitive learning by means of digital tools. Third, it produces a circle of learning, containing exciting, investigation and creative experiments (Hobbs and Coiro, 2016).

Fast developments in current technology have a great effect on EFL learning, and numerous technologies have been settled as complementary resources to sustain apprentices and promoting the scholastic practice (Faramarzi ,Tabrizi, & Chalak,. 2019). Instructors nowadays constantly employ technologies such as Ubiquitous learning tools as additional tools to improve students' listening comprehension and digital literacy skills.

Correspondingly, EFL instructors should seek teaching and learning through digital technologies that enhance listening comprehension and digital literacy in their classes. Therefore, Ubiquitous learning tools (podcast and TED talks) will be used in this study.

### **1.1. Context of the Problem**

Out of the researcher's experience as a lecturer at the Faculty of Education, she noticed that the majority of third year students enrolled in the English section face problems in EFL listening comprehension skills and digital literacy. Students face numerous problems in EFL listening comprehension skills. They forget what they hear and not recognize the words they know. They can't understand the intended message of what is heard. Moreover, they cannot form a mental representation of words they hear and cannot understand the phonetic variation of words (reduction, assimilation and elision). Additionally, third year English section students manage control

the speed of speech; not able to control how quickly speakers talk using different speech accents.

Moreover, lack of digital literacy skills is highly predominant among third year English section students at the Faculty of Education, Benha University. The researcher had an interview with the prospective teachers, who mentioned that they have many reasons for the lack of digital literacy skills. There is an abundance of the EFL academic knowledge available on the internet. Information management is yet another crucial challenge for them in the current age. They cannot inquire from different sources whether the information is correct or not. Moreover, they cannot use the cloud computing technologies such as google drive and iCloud. Consequently, they cannot use the useful apps of ubiquitous learning such as podcasts and TED talks to enhance their language skills.

In the Egyptian context, English language programs do not offer students with chances to practice EFL listening comprehension skills in interactive situations. Thus, many researchers tackled many studies to enhance EFL listening comprehension skills among students at different instructional stages. Previous scholars such as Abdellateef, (2018) who designed a program based on podcasting strategy to develop secondary school students' listening comprehension skills. Whereas, Al-feky (2019) designed a program that based on some electronic devices such as tablet and smart phone to develop EFL university students' vocabulary retention and listening comprehension skills. The results revealed that the tablet and smart phone were effective in enhancing the experimental group' listening skills and vocabulary retention. Ibrahim (2020) used the blended learning strategy to improve English major sophomores' listening comprehension skills. Ali (2021) designed a program based on the SAVI learning model for developing third year-basic education students' listening skills and higher order thinking skills. Recently, Abdel Bar (2022) used an instructional scaffolding in a Hybrid learning environment to develop EFL critical listening skills among primary stage pupils.

To document the problem of the study, the researcher accomplished a pilot study on thirty students of third year registered in the English language section, Faculty of Education, Benha University. The pilot study comprised an EFL listening skills test adopted from Diab (2018) (see appendix A) and EFL digital literacy scale adopted from Bayrakci, & Narmanlioğlu, (2021) (see appendix B). The pilot study was conducted

through the first semester of the 2021/2022 academic year. First, the findings of the pilot study showed that the majority of the participants (88%) have a low level of EFL listening comprehension skills, as most of third year students at the faculty of Education lack listening comprehension skills. Moreover, they cannot understand the intended message of what is heard and focused only on the surface meaning of the audio text. Also, when they face difficult words, they stop listening to the conversation and deliberate the meaning of the unknown words some time, thus they slip the subsequent section of the conversation.

Second, the digital literacy scale aimed at detecting students who are illiterate digitally. Its dimensions were rated on a 5-point Likert scale alternating from Strongly disagree (1) to Strongly agree (5). After analyzing the students' responses on the scale items. It has been indicated that the majority of the participants (87%) have marked as illiterate digitally. So the present study is an attempt to use a program based on the ubiquitous learning tools (Podcast and TED talks) to develop third year students' listening comprehension and digital literacy skills.

## 1.2. Statement of the problem

Despite the prominence of EFL listening comprehension and digital literacy skills, the third year students enrolled in English language section, Faculty of Education, Benha University, lack these skills. Consequently, they cannot prevent understand the recorded materials and respond to questions about the material. Consequently, the present study tries to aid them developing their EFL listening comprehension and digital literacy skills through using the ubiquitous learning tools- based program.

## 1.3. Questions of the Study

In an endeavor to overcome this problem, the researcher of the present study tried to answer the following questions:

- (a) What are the EFL listening comprehension skills required for the third-year prospective teachers?
- (b) What is the form of a program based on ubiquitous learning tools for developing third-year prospective teachers' EFL listening comprehension and digital literacy skills?
- (c) What is the effectiveness of the program based on ubiquitous learning tools for developing third-year prospective teachers' EFL listening comprehension skills?

- (d) What is the effectiveness of the program based on ubiquitous learning tools for developing third-year prospective teachers' digital literacy skills?
- (e) To what extent can third-year prospective teachers' digital literacy skills predict their EFL listening comprehension skills?

#### 1.4. Hypotheses of the Study:

In the light of the review of literature and related studies, the following five hypotheses are formulated:

- 1- There is a statistically significant difference between the mean score of the experimental and control groups of the overall EFL listening comprehension skills and sub-skills on the post- administration of EFL listening comprehension skills test, in favour of the experimental group.
- 2- There is a statistically significant difference between the mean score of the experimental group in overall EFL listening comprehension skills and sub-skills on the pre and post administration of EFL listening comprehension skills test, in favour of post-administration.
- 3- There is a statistically significant difference between the mean score of the experimental and control groups of the overall digital literacy skills and sub-skills on the post- administration of digital literacy scale, in favour of the experimental group.
- 4- There is a statistically significant difference between the mean score of the experimental group in overall digital literacy skills and sub-skills on the pre and post-administration of digital literacy scale, in favour of post-administration.
- 5- There is a statistically significant positive correlational relationship between experimental group students' scores in the post-assessment of the EFL listening comprehension skills test and digital literacy scale

#### 1.5 Delimitations of the Study:

The present study was restricted to:

1. Seventy four third year, English section students, Faculty of Education at Benha University.
2. Some EFL listening comprehension skills required for third year, English section students at Faculty of Education.
3. Some digital literacy skills required for third year, English section students at Faculty of Education.



4. The second semester of the academic year 2021/2022.

### 1.6 Instruments and Materials:

The researcher prepared and used the following instruments and materials:

1. An EFL listening comprehensions skills checklist
2. An EFL listening comprehension tests (pre and post)
3. A digital literacy scale (Adopted from Bayrakci, & Narmanlioğlu, 2021).
4. A program based on ubiquitous learning tools (Podcast & TED talks).

### 1.7 Significance of the study

The present study is substantial for:

1. **EFL Prospective teachers:** it aids them to enhance some EFL listening comprehension and digital literacy skills.
2. **EFL instructors:** it affords them a program based on the ubiquitous learning tools (podcast and TED talks) to develop their students' EFL listening comprehension and digital literacy skills.
3. **Curriculum planners:** it sheds light on the ubiquitous learning tools (Podcast and TED talks ) as an authentic and proficient instructional tools.

### 1.8 Definition of Terms

#### **EFL listening comprehension Skills**

Listening comprehension skills are operationally defined as third year, English section students' abilities to listen and comprehend spoken language of multiple utterances

#### **Digital literacy**

Digital literacy is operationally defined as third year prospective teachers' abilities to use the information literacy skills, ICT literacy skills and media literacy skills in EFL learning.

#### **Ubiquitous Learning (UL):**

Ubiquitous learning is operationally defined in the current study as prospective teachers' abilities to use the podcast and TED talks tools to develop their listening comprehension and digital literacy skills.

## 2. Literature Review

Listening plays an important role in communication (Berraban, 2014 & Harmer, 2001). It was considered a passive process in the past, as the listener just received the information sent by the speaker (Nation & Newton, 2009). Most current models view listening as active process; listener has to interpret meaning rather than just receiving. Moreover, it requires certain preconditions such as: attention, background and comprehensible input (Lynch & Mendelsohn, 2002).

Graham (2017) asserted that listening is a complex process, as listeners listen to a foreign language and hear a thread of worthless sounds. Increasingly, apprentices comprehend some fundamentals such as phonemes and pitch. After they are equipped with the phonological, syntactic, and semantic codes of the language, apprentices have attained the degree of acknowledgment, understanding, and maintenance. According to Fathi and Hamidzadeh (2019), listening is a creative process, as listeners are assigned in shaping the whole message, grasping meaning and correlating the innovative information with what they already recognize or what they perceive.

Listening has a vital role in the improvement of second language skills (Goh, 2014). Nowadays, listening is recognized as an interactional, active and complex process and critical to second language acquisition. It is active because it includes the extraction of meaning from the input, which is frequently imperfect as listeners are not able to attain every word they hear, and it is complex since the structure of meaning while listening is related to an individual's cognitive processes (Goh, 2014). Moreover, research has revealed that the improvement of the listening capacity in second language learning is prerequisite to the enhancement of other language skills. (Morley, 2001; Luu, Lian, & Siriyothin, 2021).

The success of listening instruction is determined by various factors. The usage of relevant materials to students' experiences is prerequisite (Cahyono & Widiati, 2015). Moreover, listening activities should be provided by students' needs and presented from the very simple audio texts to the very complicated and authentic materials. Additionally, instructors should aid scholars to improve the required skills of listening comprehension; listening for appreciative specific information or details,

listening for the core idea and listening for the anticipated meaning through practicing diverse responsibilities and accomplishments (Ross,2007).

Listening comprehension is one of the most basic skills required to develop other skills for any language. It comprises recognizing the second language sound patterns and their variations, specifically, phonemes and stress in addition to understanding the meaning of different words (Wagner, 2010). According to Rost (2002), listening comprehension is a complex and interactive process. Listeners in listening process are involved in active structure of meaning. They can gain the oral input from sound discrimination, linguistic, paralinguistic, or even nonlinguistic clues in contextual sound.

There are many scholars who aimed to enhance EFL listening comprehension skills. Ahmadi and Beheshti (2018) examined the effect of interactionist and interventionist approaches to group dynamic assessment on Iranian Intermediate EFL learners' listening comprehension development. The listening comprehension section of the EFL junior standard test served as a pre-posttest. The results revealed the efficacy of dynamic assessment on students' performance of listening comprehension. In the same vein, Barjesteh and Ghaseminia (2019) examined the effect of pre-listening activities in promoting the listening comprehension ability of Iranian EFL learners. Sixty-three college female students were selected to involve in three task-based activities, specifically the podcast, video and topic preparation tasks. The results showed that podcast-based task promotes students' listening skill.

Al-shamsi, Almekhlafi, AlBusaidi and Hilal (2020) examined the effect of using the mobile-learning on promoting adult learners' listening skills in Oman. The participants were adult learners from a foundation program at a military educational institute. The mobile learning was effective in developing the participants' performance of listening comprehension and had a positive attitude towards using mobile learning. Recently, Tai and Chen (2021) investigated the effect of mobile virtual reality (MVR) on developing EFL listening comprehension. Seventy-two of seventh graders in Taiwan were randomly assigned into control and experimental groups. The MVR players played the language learning VR app mondy, using a mobile-rendered head-mounted display. The results revealed that the MVR offered apprentices admission to stimulated, interactive and immersive

virtual environments to complete authentic learning accomplishments, reducing anxiety, and thus aided the listening comprehension development.

Digital Literacy is the ability to appreciate and employ numerous types of information science from numerous sources to present information in a digital form (Jun & Pow,2011). Digitally literate students must be able to manage, evaluate, and communicate their computer skills while using technology and information management. Additionally, they must have a firm understanding of the moral dilemmas related to information accessibility. In other words, digital literary could include using technology for a presentation or problem solving, collaborating and sharing knowledge, as well as being aware of one's own one accountabilities and the rights of others, allowing individual to quickly and efficiently modify and restate any content (Sharpe, 2010)

The digital literacy skills include three main indicators: Information skills, digital tools usage and digital transformation. Information skills mean the important concepts of information management as the problem definition, issue searches and information application for solving problems. Digital tools usage means to practice numerous software applications, digital tools usage for daily life meetings objectives, a capability to accomplish and resolve basic computer problems, communication skills and the capacity to function digital devices, along with a variety of cognitive skills to perform responsibilities in digital environments. Finally, digital transformation skills mean the evaluation skills for the digital information with the purpose of producing, cultivating and manipulating a new practices of information (Gruszczynka, Merchant & Pountney, 2013).

Being digitally literate is very essential. As digital media are commonly accessible nowadays and the majority of scholars are digital natives, EFL teachers who are teaching such tools can use ICT to develop innovative methods of teaching and learning within and outside of the classroom. The aim of digital literacy learning is to boost student involvement in digital media as early as possible so as to become energetic, imaginative, creative and innovative persons (Knobel and Lankshear, 2006).

Eryansyah, Erlina, Fiftinova, & Nurweni, (2019) aimed to investigate EFL students' current level of digital literacy, determining factors affecting EFL students in using ICT in language learning, and detecting EFL students'

needs to enhance their digital literacy skills to encounter the stresses of the 21st century skills. The research findings helped to develop people's consciousness of the significance of being digitally literate in the digital technology age. Akayoglu, Satar, Dikilitas, Cirit, & Korkmazgil (2020) investigated Turkish PTs' conceptualization of digital literacy. In order to enhance PTs' use of digital literacy platforms for their professional development, the researchers suggested the need for more recommendation. The study's conclusions offer implications on the level of digital literacy that PTs in Turkey currently possess, and they will be helpful to those who develop educational policies and teacher preparation programmers in the twenty-first century.

Racently, Gumar (2022) examined the digital literacy skills employed in Iraqi EFL university classrooms. The study included 150 fourth-year EFL undergraduates from the faculty of education. Results indicated that the participants have the ability to share, find, create, and evaluate content using the internet. Moreover, the researcher indicated that the participants have a high level of cognitive ability to analyze and access information. Results indicated that the participants have the ability to share, find, create, and estimate content using the internet. Moreover, the researcher indicated that the participants have a high level of cognitive ability to examine and admit information from digital devices. The study recommended that instructors and students continue to date, improve their personal digital capabilities, and comprehend in what manner digital devices can improve their own native language.

Thus, in light of reviewing studies that dealt with the listening comprehension and the digital literacy skills, it can be determined that, these skills positively affect students' performance in EFL. Moreover, it is very essential for developing EFL students' performance in listening comprehension and digital literacy skills. Therefore, the present study researcher designed a program based on the ubiquitous learning tools for developing digital literacy skills among EFL prospective teachers.

Ubiquitous learning is a learning platform that enables the learners to perform various learning activities in the right place and time (Huang, Huang&Yu,2011). It supports collaborative and interactive learning. Moreover, learners in the ubiquitous learning can use wireless

communications and sensor technologies within learning activities (Shin, Kuo&Liu,2012). Jones and Jo (2004) asserted that, Ubiquitous learning is a new type in the world of information and communication, where students can carry a wireless device personal digital assistance. In the same vein, Park (2011:78) defined ubiquitous learning as “a learning environment wherever scholars have access to a diversity of digital devices and services, containing computers connected to the internet and mobile computing devices, whenever and wherever they want them”.

Ubiquitous learning works with a community consisting of collaborators, content and services. It is based on the situated learning theory as this theory is focused on student’s total immersion in a realistic context. Therefore, learners can acquire knowledge and connectivity when immersed in a social and cultural reliable context (Bllett,1994& Herrington and Oliver,2000). The principles of the Ubiquitous learning are based on the collaborative learning theory. This theory is focused on the group interdependence and the group of community where students share their ideas, thoughts and engaged in a creative collaborative learning environment supported by internet (Chang &Chen,2007). Moreover, the principles of ubiquitous learning are related to the Context-aware learning theory. As context is anything that surrounds people who can listen, see and interact to each other. Moreover, the development in information and communication technology, especially in context-aware computing enabled learners to use contextual information that immerse them in a realistic environment to gain more experience and interaction in an authentic situation with other peers (Abowed,et.al,1999; Chen, Kortz,2000; Chen&Li,2007).

Ubiquitous learning has many features and characteristics such as: Permanency, accessibility, immediacy, interactivity and situating of instructional activities. Permanency means that the learners can record their work permanently and never lose it. Accessibility enables learners to access to their materials; videos, documents and data anywhere. Immediacy feature means that learners can get the data immediately and solve any problem quickly to get the response to their questions. Interactivity means that they can interact with their peers and instructors even in asynchronous or a synchronous form. Finally, situating of instructional activities enabled learners to use authentic activities that

helped them to make a particular actions relevant (Ogata and Yano,2004; Liu,2009).

Podcasts, as a type of ubiquitous learning (UL), are effective technological tool that can help EFL apprentices develop their listening skills. The podcast is an audio-based material, that assist apprentices to apprehend the audio text and enhance their aptitude in listening comprehension. Podcasts produced by English native speakers to afford apprentices numerous probabilities to listen to authentic materials (Hasan & Hoon, 2013). Bustari, Samad and Ahmad (2017: 97) mentioned that “It is a combination between the words iPod and broadcast.” Many researchers (Cebeci and Tekdal, 2006; Selingo, 2006) defined a podcast as a series of audio files (sometimes video) that can be transferred repeatedly through subscription to an RSS (Really Simple Syndication).

Podcast is considered as an effective language teaching tool that enable apprentices contact the language material whenever and in any residences lacking restriction (Shahramiri & Gorjian, 2013) Podcast as learning tool is classified into two types. The first is authentic substances from native speakers which is not proposed for learning. These categories of podcast are frequently under the melodies such as sport or television system. The second is podcast with learning content which is precisely deliberated for learning and can provide an authentic language learning context to improve their fluency, or to support them to pass an English test such as IELTS or TOEFL. For this form of podcast, the resources are formed for selected scholars (William & McMinn, 2008 ; Fernandez ,Simo & Sallan, 2009).

As a useful Ubiquitous learning tool for English Foreign Language (EFL), Podcast helps the students to improve language skills, especially listening skill. Podcasts has distinctive merits than other audios concerning its content, as the authentic listening material permits learners to listen to repository of real-life speaking materials of native speakers that allow scholars to study at their own time and pace (Kavaliauskiene, 2008). Abdulrahman, Basalama, & Widodo (2018) investigated students' listening comprehension through the use of podcast in EFL classroom. The study sample consisted of 60 secondary school students in Indonesia. The result of questionnaire showed that scholars have positive attitude to podcast and recommended educators to employ podcast in teaching listening as an effective technology instructional instrument.

Gonulal, (2020) examined the effect of using podcasting and vodcasting in enhancing extensive listening and overall L2 listening skills. Forty-nine EFL university students participated in this study. Results showed that scholars spent around one hour per week on extensive listening with podcasts or vodcasts outer the classroom. Generally, this study suggested that developing certain language skills can be enhanced through digital technologies such as podcast. In the same vein, Hamdani, Fikni, & Handini, (2022) investigated the scholars' perception of podcast on developing their listening skill. The scholars were twenty EFL college students. The instruments consisted of a survey questionnaire was distributed to students to investigate their perspectives on using podcast in listening instruction. The results indicated that Podcasts has a positive effect in enhancing the participants' listening skills.

TED talks as another tool of ubiquitous learning are short speeches by presenters who belong to diverse social groups and communities who expect to share their innovative practices to inspire listeners. TED (Technology, Entertainment, and Design) employs an alternate practice of media, containing a website and YouTube channel, to transmit its conference and spread ideas. As a result of the stimulating and groundbreaking topics of TED talks, they can be a brilliant basis for enlightening EFL/ESL learners' listening skills (Mojgan, & Tollabi, 2019).

TED Talks are categories of public speaking that share proficiencies and provide inspiration to the listeners. TED presentations are employed to improve apprentices' skills in English. It is favorable for apprentices as they not only increase awareness about public speaking but also attain the speakers' thoughts and proficiencies so that they can be inspired and motivated by the talkers' presentations. Consequently, employing them allows scholars to have direct interaction with the form of input that replicates real communication in the target language. TED talks also comprise the features of real conversations retain, such as prosody, false starts, hesitations, and filler devices (Field,2008; Farid, 2019). One advantage of applying TED Talks is that they are totally authentic since the presenters share their personal proficiencies, opinions, and stories with the spectators. TED Talks are appropriate media that can be conducted in speaking and listening classes (Vasilevich, 2016).



Takaesu (2017) examined how TED talks were employed as an extensive listening resource, affected college scholars' listening skills, and discovers strategies to modify the task for lower-proficiency students. The qualitative data analysis, based on two surveys and students' journal records, asserts that students felt the lectures enhanced their listening comprehension and their motivation.

Mojgan and Tollabi (2019) examined whether the different media instruction could have different influences on the students' listening skills. The participants of the study were Sixty intermediate scholars. They were assigned into experimental group and control group. The experimental group watched the TED talks through mobile devices, whether the control group trained listening through DVDs and CDs for ten sessions. The results indicated that the TED talks were effective in enhancing EFL listening skills for the experimental group. In the same vein, Kozińska (2021) investigated the effect of teaching through TED talks on students' listening, speaking and interaction skills. The study conducted on 27 university students at Polish universities. The researcher used TED talks as an additional source in teaching EFL to university students. Data was attained in an online questionnaire and analyzed by the qualitative data. Results indicated that TEDs are valued as developed oral communication skills' improvement.

Reviewing previous studies on the ubiquitous learning have confirmed that this treatment is necessary for enhancing EFL listening comprehension skills among students and boosts their digital literacy. Thus, the present study researcher designed a program that based on the ubiquitous learning tools (Podcast& TED talks) for developing EFL listening comprehension and digital literacy skills among prospective teachers.

Thus, in light of reviewing studies that dealt with listening comprehension and digital literacy skills, it can be concluded that it has become a major target for foreign language instruction. Thus, developing prospective teachers' listening comprehension enables learners to become more mindful communicators and digitally literate in EFL learning.

### 3- Method

This section investigated the research methodology that has been followed in determining the effectiveness of the ubiquitous learning

tools (podcast and TED Talks) in developing EFL listening comprehension and digital literacy skills among third year English language section, Faculty of Education, Benha university. The methodology comprises the next items:

### 1) Participants

The participants of the present study consisted of 74 third year English language section students at Faculty of Education, Benha University during the second semester of the academic year 2021-2022. They were distributed into two groups; an experimental group (N=39) and a control group (N= 35) as shown in table (1). The experimental group was taught using the ubiquitous learning tools (Podcast &TED Talks), while the control group was taught by the traditional instruction.

**Table (1) The participants of the study**

Group	Control	Experimental	Total
Pre	35	39	74
Post	35	39	74

### Homogeneity of the groups:

The experimental and control groups were homogeneous before conducting the experiment as they include students having nearly the same age range (20-22 years) and they are from homogenous economic and social levels. To ensure that both groups were the same in the EFL listening comprehension and digital literacy skills, EFL listening comprehension skills test and digital literacy scale were applied to the experimental group and the control group before implementing the treatment. Mean, standard deviation and "t" value of the two groups were computed.

**Table (2): t-value and Level of Significance in the Pre-administration of EFL listening comprehension skills test between the experimental group and the control group**

Skills	Group	No.	Mean	Std. Deviation	t-value	DF	$\alpha$ Sig
1	Experimental	39	1.38	0.94	0.204	72	0.839
	Control	35	1.43	0.92			
2	Experimental	39	1.79	0.61	1.470	72	0.146
	Control	35	1.54	0.85			
3	Experimental	39	1.64	0.78	0.090	72	0.929
	Control	35	1.66	0.76			
4	Experimental	39	1.44	0.91	1.819	72	0.073
	Control	35	1.03	1.01			
5	Experimental	39	1.33	0.96	1.083	72	0.282
	Control	35	1.09	1.01			
6	Experimental	39	1.18	1.00	0.645	72	0.521
	Control	35	1.03	1.01			
7	Experimental	39	1.28	1.17	1.344	72	0.183
	Control	35	1.60	0.81			
8	Experimental	39	1.13	1.00	0.557	72	0.579
	Control	35	1.26	0.98			
9	Experimental	39	1.59	0.82	0.241	72	0.810
	Control	35	1.54	0.85			
10	Experimental	39	1.54	0.85	1.312	72	0.194
	Control	35	1.77	0.65			

All Over Test	Experimental	39	14.31	2.45	0.701	72	0.486
	Control	35	13.94	1.97			

Table (2) indicates that there is no significant difference between the mean scores of the experimental and control groups on the overall EFL listening comprehension skills and its sub-skills, where "t" value for the overall skills is (0.701) which is not significant at (0.05) level of significance. This means that the two groups are equivalent in their EFL listening comprehension skills before implementing the treatment.

Also, to make sure that both groups were equal in digital literacy, digital literacy scale was administered to the two groups before applying the treatment. Mean, standard deviation and "t" value of the two groups were calculated.

**Table (3): t-value and Level of Significance in the Pre-administration of the digital literacy scale between the experimental group and the control group**

Skills	Group	No.	Mean	Std. Deviation	t-value	DF	$\alpha$ Sig
information literacy	Experimental	39	20.00	4.29	0.108	72	0.914
	Control	35	19.89	4.79			
ICT Literacy	Experimental	39	16.43	2.94	0.657	72	0.513
	Control	35	16.94	3.69			
media literacy	Experimental	39	6.69	2.13	1.701	72	0.093
	Control	35	7.57	2.32			
All Over Scale	Experimental	39	43.13	7.39	0.748	72	0.457
	Control	35	44.40	7.21			

Table (2) shows that there is no significant difference between the mean scores of the experimental and control groups in the digital literacy skills' pre-administration, where "t" value is (0.748), which is not significant at (0.05) level of significance. This means that the two groups are equivalent in their digital literacy skills before implementing the treatment.

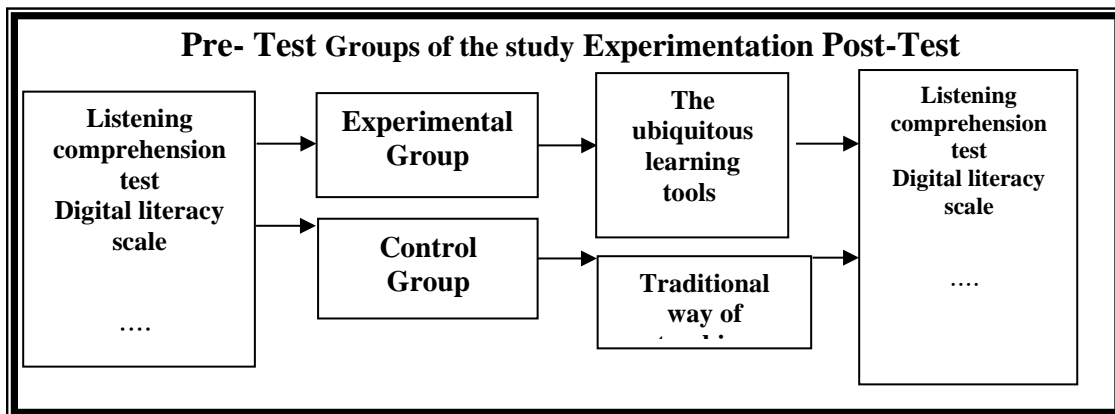
Tables (2) and (3) clarify that no statistically significant difference was found between the two groups in the pre-administration of the EFL

listening comprehension skills test and the digital literacy scale. Accordingly, it was ensured that both groups were equivalent in their entry level of listening comprehensions skills and digital literacy before the experimental treatment.

## 2) Design of the study

The present study is mainly quantitative and qualitative. Its design is quasi-experimental which is based on manipulating the independent variable and measuring its effectiveness on the dependent variable (Torchin, 2003:29). The descriptive approach was used to detect the important EFL listening comprehension skills suitable for third year, English section students at Faculty of Education, Benha University, in light of the broad literature analysis. A pre- post control group design was used. The two groups were tested before and after the treatment. In addition, the quasi-experimental design was applied to find out the impact of using the ubiquitous learning tools (podcast & TED Talks) for developing EFL listening comprehension skills and digital literacy skills among third year English language section students at Faculty of Education, Benha University.

Figure (1): The experimental design of the study



## 3) Instruments of the study

This study aimed at using a program based on the ubiquitous learning tools (Podcast & TED Talks) for developing EFL listening comprehension and digital literacy skills among third year English language section students at Faculty of Education, Benha University. The next instruments and materials were designed by the current study researcher to accomplish the purpose of the study:

- A. An EFL listening comprehension checklist.
- B. An EFL pre-post listening comprehension skills test.
- C. A digital literacy scale (Adopted from Bayrakci, & Narmanlioğlu, 2021).
- D. Ubiquitous Learning - based program

### **A-The EFL listening comprehension Skills Checklist**

First, the researcher reviewed the recent literature about EFL listening comprehension skill (Al-Jurf,2021; Buck,2001; Goh,2014; Graham,2017; Harmer,2004; Phillips, 2003; Lynch, 2011; Rost, 2011; Vandergrift, 2002). At the beginning, the researcher prepared an EFL listening comprehension checklist that consisted of 14 skills. The initial checklist was presented to a panel of jury members to identify the appropriateness of the chosen EFL listening comprehension skills to third-year English section students at the Faculty of Education. Then reviewers omitted 4 skills as they were repeated in other previous skills. Therefore, the EFL listening comprehension skills checklist was set in its final form that consisted of ten main skills (**Appendix A**).

### **B- EFL listening comprehension Skills Test :( pre-post test)**

After reviewing literature and assigning the checklist in its final form, the researcher has prepared the EFL listening comprehension skills Test. The test consisted of three parts. Each part consists of a long conversation, followed by some questions to assess third-year students' teachers listening comprehension skills. Forty marks were divided among the ten EFL listening comprehension skills. The researcher provided participants with multiple instructions such as:

- Listen to the following three conversations.
- After each conversation you will listen some questions about it.
- The conversation will not be repeated.
- After you listen the questions, read the four possible answers on your test paper and choose the correct one.

(See **Appendix. (B) for the EFL listening comprehension test**)

### **-Validity of EFL listening comprehension test:**

#### **A-Face validity of the listening comprehension test:**

The test was submitted to a panel of jury members in EFL curricula and instruction (8) to determine its face validity (see appendix D). They were asked to express their opinions regarding the following points: clarity of the test instructions, suitability of the test to the students' level and clarity of the test questions. The jury members reported the applicability of the test items to the skills to be measured. Suitability of the test to students' academic level was reported. Simplicity of the test instructions and questions and representation of the targeted skills were also reported.

### **B-The internal consistency validity of the EFL listening comprehension test:**

To estimate the internal consistency validity of the EFL listening comprehension test, the internal consistency was calculated through using the SPSS V.18. The researcher calculated the Pearson Correlation coefficient of students' score in each skill and their total score of the test as a whole. The correlation coefficient and the significance level are presented in the following table.

**Table (4) Values of the Correlational Validity Coefficients for each skill and the total score targeted by listening comprehension test.**

Item	Correlation	Item	Correlation	Item	Correlation	item	Correlation
1	0.586**	2	0.426*	3	0.557**	4	0.492**
5	0.539**	6	0.623**	7	0.615**	8	0.686**
9	0.493**	10	0.509**				

\*. Correlation is significant at the 0.05 level & \*\*. Correlation is significant at the 0.01 level

According to the table, the correlation coefficient for each skill of the test and the total score of the whole test was statistically significant at (0.05) & (0.01). This indicates that the EFL listening comprehension test was a valid instrument regarding its internal consistency and all its items were assigned to attain its main purpose.

### **- Reliability of the EFL listening comprehension Skills Test:**

For approximating the reliability of The EFL listening comprehension skills test, the researcher used the following two methods:

**(A) Test-Retest Method:**

The test was administered to a random sample of third year English language section students at Faculty of Education, Benha University, (n=30). The test was administered again to the same group after two weeks. The Pearson correlation coefficient between the two administrations in each item of the test as well as the test as a whole is presented in table (5).

**Table(5):Reliability of the EFL listening comprehension test**

Skills	Skill 1	Skill 2	Skill 3	Skill 4	Skill 5	All Over The Test
Correlation	0.702**	0.805**	0.799**	0.714**	0.694**	
Skills	Skill 6	Skill 7	Skill 8	Skill 9	Skill 10	0.942**
Correlation	0.728**	0.826**	0.745**	0.824**	0.874**	

\*\* . Correlation is significant at the 0.01 level

Accordingly, as the previous table shows, the values of the correlation coefficients are high and all of them are significant at (0.01). This means that the test is highly reliable.

**b. Cronbach's Alpha Method**

Cronbach's alpha was also used to assess the reliability of the EFL listening comprehension skills test. The Alpha coefficient of the EFL listening comprehension skills test is 0.814. Since "it is appropriate [with alpha coefficient] to have a reliability coefficient of 0.70 or higher." (Wells & Wollack, 2003, p. 4), the value demonstrated here is acceptable revealing that the EFL listening comprehension test is reliable and has internal consistency.

**-Scoring and Piloting the EFL listening comprehension Test:**

The EFL listening comprehension test consists of three long conversations, with 20 MC questions (closed questions); wherein the correct response was



given two marks. Therefore, the total score for the test was 40 marks. The test was administered to thirty students, other than the study participants by the end of the first semester of the 2021/2022 academic year to determine the clarity of the test instructions; suitability of the test to the students' level, and duration of the test. The time of the test was measured as 25 minutes.

## **B – The EFL Digital Literacy Scale:**

### **-Aim and description of the EFL digital literacy scale:**

The current study researcher adopted (Bayrakci, & Narmanlioğlu, 2021) scale of digital literacy to measure the digital literacy skills among third year students enrolled in English section at Faculty of Education, Benha University, Egypt (see appendix C). It was used as a pre-post scale (applied before and after implementing the program).

Each item is constructed to get prospective teachers' responses through a continuum that is based on the five-point Likert scale. The scale consists of (25) items with five options for each item. The options were: Strongly agree, Agree, I don't know, Disagree and Strongly disagree. Score assigned to the responses were 1, 2, 3,4 and 5. This scale required students to rate their digital literacy. There is no right answer for any statement. The best answer is what they see. Items are statements to which students' responses are (1= Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree,5 = Strongly agree). Since the scale has 25 items, the maximum grade that any student can get is 125. The digital literacy scale was applied to all 74 participants before and after the treatment to track changes in students' digital literacy.

### **The Validity of the Digital Literacy Scale:**

#### **-Face validity of the Digital Literacy Scale:**

To estimate the digital literacy scale validity, the clarity of items and the suitability of the scale items to the students' level and background, the scale was submitted to eight Jury members. Some adjustments to some substances that not related to students have been changed. The jury panel emphasized that the scale items were valid.

#### **- Internal consistency validity of the Digital Literacy Scale:**

The internal consistency of the digital literacy scale was determined by calculating the consistency between the total score of each item of the scale and the total score of the scale as a whole. It was measured by using the Pearson Correlation Coefficient. The correlation coefficient and the significance level are presented in table (7) as follows:

**Table(6): The Correlation between the score of each item in the Digital literacy scale and the total score of the whole scale**

information literacy skills							
Item	Correlation	Item	Correlation	Item	Correlation	Item	Correlation
1	0.417*	2	0.663**	3	0.555**	4	0.796**
5	0.446*	6	0.683**	7	0.712**	8	0.650**
9	0.659**	10	0.371*	11	0.596**		
ICT Literacy skills							
Item	Correlation	Item	Correlation	Item	Correlation	Item	Correlation
12	0.626**	13	0.712**	14	0.778**	15	0.781**
16	0.526**	17	0.687**	18	0.603**	19	0.587**
20	0.682**	21	0.439*				
media literacy skills							
Item	Correlation	Item	Correlation	Item	Correlation	Item	Correlation
22	0.600**	23	0.870**	24	0.794**	25	0.667**

\*. Correlation is significant at the 0.05 level & \*\*. Correlation is significant at the 0.01 level

**Table (7): The Correlation between the score of each dimension in the Digital literacy scale and the total score of the whole scale**

Skills	information literacy skills	ICT Literacy skills	media literacy skills
Correlation	0.923**	0.939**	0.867**

\*\* . Correlation is significant at the 0.01 level

According to the previous tables, the correlation coefficient for each item of the scale and the total score of the whole scale was statistically significant at (0.05) & (0.01). Moreover, the correlation coefficient for each dimension of the scale and the total score of the whole scale was statistically significant at (0.01). This indicates that the digital literacy scale was a valid instrument regarding its internal consistency and all its items and dimensions were assigned to attain its main purpose.

### **The Reliability of The digital literacy Scale:**

For approaching the reliability of the digital literacy skills scale, the researcher used the following two methods:

#### **(A) Test-Retest Method:**

The scale was administered to a random sample of third year English language section students at Faculty of Education, Benha University, (n=30) during the second semester of the academic year (2021-2022). The scale was applied again to the same group after two weeks. The Pearson correlation coefficient between the two administrations in each item of the scale as well as the scale as a whole is presented in table (8).

**Table(8): The Test-Retest Reliability Coefficient of the digital literacy scale.**

Skills	Number of subjects	information literacy skills	ICT Literacy skills	media literacy skills	The whole scale
Test-retest	30	0.842**	0.902**	0.795**	0.937**

\*\* Correlation is significant at the 0.01 level

### b. Cronbach's Alpha Method

Cronbach's alpha was also used to assess the reliability of the digital literacy scale. The Alpha coefficient of the digital literacy scale was calculated to the main dimensions of the scale and the total score of the scale as a whole. The value of the Alpha coefficient confirmed here to be acceptable revealing that the digital literacy scale is reliable and has internal consistency. It is evident in the following table.

**Table(9): Alpha coefficient of the digital literacy scale**

Skills	Number of the subjects	Information literacy skills	ICT Literacy skills	Media literacy skills	The scale as a whole
Cronbach's Alpha	30	0.817	0.843	0.723	0.920

\*\* Correlation is significant at the 0.01 level

Since "it is appropriate [with alpha coefficient] to have a reliability coefficient of 0.70 or higher." (Wells & Wollack, 2003, p. 4), the value demonstrated in the previous table is acceptable revealing that the digital literacy scale is reliable and has internal consistency.

### Experimentation

#### Pre-administration

After drawing the participants of the study, the EFL listening comprehension skills and the digital literacy scale were pre-administered

to them during the second semester of the academic year 2021/2022 at Faculty of Education, Benha University.

### **Experimentation**

The program based on using the ubiquitous learning tools, that were administered to the members of the experimental group to enhance their EFL listening comprehension and digital literacy skills. The experimental treatment took place within the practical hours of the teaching methodology course delivered for third year, English language section students at the Faculty of Education, Benha University. The first session of the experimentation was a ninety minutes' orientation and introductory session that aimed to familiarize the participants with EFL listening comprehension and digital literacy skills. The other sessions of the experiment were devoted to teaching the participants through the ubiquitous learning-based program. The experiment continued for approximately seven weeks.

The program focused on developing some EFL listening comprehension and digital literacy skills based on the ubiquitous learning tools (podcast & TED Talks) The program consisted of 15 sessions that were based on using various podcasts and ted talks in each session. Each session of the program included several tasks that addressed the main principles of the ubiquitous learning. The program is mainly deliberated to be an instructional course for developing some EFL listening comprehension and digital literacy skills of prospective teachers at the Faculty of Education, Benha University.

Gradually, a change was noticed in the prospective teachers' beliefs about the importance of EFL listening comprehension and digital literacy skills. Moreover, they became more enthusiastic to practice extra-curricular activities. Each session of the program was devoted to develop one or two EFL listening comprehension sub-skills and the dimensions of digital literacy.

### **Post administration**

After implementing the program based on the ubiquitous learning tools, Post administration of the study instruments took place at the end of the second semester of the academic year 2021/2022.

### **C-Ubiquitous Learning- Based Program (ULBP)**

The ubiquitous learning-based program was designed to develop EFL listening comprehension and digital literacy skills of third year students enrolled in English language section at Benha Faculty of Education and providing them with some theoretical and practical activities about EFL listening comprehension skills and dimensions of EFL digital literacy and how to practice them to achieve the mastery level. (See Appendix H)

#### **a- Objectives of the program**

The ubiquitous learning-based program was settled to enhance EFL listening comprehension and digital literacy skills of third year students of English language section, Faculty of Education at Benha University.

The researcher used variety of activities, assignments and tasks through the sessions to permit the participants complete the program objectives. By the end of the program, students will be able to:

- Identify the significance of ubiquitous learning -based program in EFL learning.
- Accomplish the eminence of EFL listening comprehension skills and the necessity of developing the digital literacy aspects to them as EFL learners.
- Enhance some EFL listening comprehension sub-skills
- Enhance prospective teachers' digital literacy dimensions by actively promoting students' media literacy, information literacy and ICT literacy through the program materials and tasks.
- Create a stimulating and enjoyable classroom circumstances by breaking the boredom of classroom techniques through a ubiquitous learning-based program.

#### **b- Content of the Program**

The program included various tasks and activities that based on the ubiquitous-learning tools to enhance the prospective teachers' EFL listening comprehension and digital literacy skills. The program was adapted from numerous sources such as related studies and books as the following:

1-	Al-Jarf, (2021)	5-	Lovett (2019)
2-	Gachago,Livingston, & Ivala (2016)	6-	Salem (2019)
3-	König (2021)	7-	Tidal (2021)
4-	Lee & Chan (2005)	8-	Uicheng & Crabtree (2018)

### C- Description and Framework of the program

The program consisted of 15 sessions. The opening session was orientation one about the sub-skills of EFL listening comprehension skills and the dimensions of digital literacy scale and how to enhance it among the participants of the study. The followed sessions were instructional ones through which the EFL listening comprehension sub-skills were practiced through listening to a ready-made Google podcasts and TED talks. Moreover, there were two sessions for revision (the sub-skills of listening and the three main dimensions of digital literacy). Each one of the revision sessions was practiced and presented after the final practice of five skills, as a sort of formative assessment to the program. (See Appendix H).

### D- Principles of the Ubiquitous Learning-Based Program (ULBP)

The present study was conducted to third year prospective teachers at the English section, Faculty of Education, Benha University, during the second academic year of 2021–2022. The major principles of ubiquitous learning based program were collected through reviewing the related literature dealt with the ubiquitous learning, activities and its practical applications. The program goes through certain principles as follows:

1. **Permanency:** This means that the learning system can be recorded and stored permanently. This was evident in the recorded materials that used in the sessions even in using podcasts or TED talks. The researcher used the Microsoft Teams Platform for posting titles of TED talks and podcasts. Moreover, all the sessions were recorded and materials were uploaded.
2. **Accessibility:** Participants accessed the information and the materials of the program easily. Moreover, they listened to and watched the podcasts and TEDtalks even individually, impairs or in small groups,

based on the required tasks of the sessions and the intended skill to be practiced.

3. **Immediacy:** Whenever participants are, they can get any required information and materials immediately. They can listen and watch them even on their smart phone, laptop, tablet or smart TV.
4. **Interactivity:** The learner role within the program sessions has been shifted from just a passive listener or recipient of transmitted knowledge to a collaborative and co-designer of knowledge with his peers. Throughout the sessions, the participants can outline the content of podcast and TED talks and determine the main idea and details within the audio texts.
5. **Situating of instructional activities:** The materials presented in the program sessions were authentic and contained natural daily life conversations. After listening the participants were required to retell or paraphrase the content orally or in a written form, through using the flow charts, diagrams or mind maps. Participants discuss their answers in pairs and in small groups according to each task within the sessions of the program.
6. **Adaptability:** Participants got the information and materials of the program at the right place in the right way. At the advanced practice, the participants can identify the pragmatic and sociolinguistic features of English within the audio of TED talks and podcast.

## 6- Findings of the study

In order to answer the study questions and in light of the quantitative results of the post administration of the EFL listening comprehension skills test and digital literacy scale to the study groups (the experimental and the control), this section presents the results in light of the study's hypotheses using the Statistical Package for Social Sciences (SPSS), Version 18. The findings are stated as follows:

### 6.1-Testing Hypothesis (1)

The first hypothesis states that “There is a statistically significant difference between the mean score of the experimental and control groups of the overall EFL listening comprehension skills and sub-skills on the



post- administration of EFL listening comprehension skills test, in favour of the experimental group.

The independent sample T-test was used to compare the mean scores of the control group and experimental one in overall EFL listening comprehension skills and sub-skills on the post administration of EFL listening comprehension test. To calculate the total effect size of the experimental treatment on the listening skills as a whole, the effect size ( $\eta^2$ ) was calculated. Table (9) presents the mean scores, standard deviation and level of significance.

**Table (9): "t" test between the mean score of the experimental group and the control group in overall EFL listening comprehension skills and sub-skills**

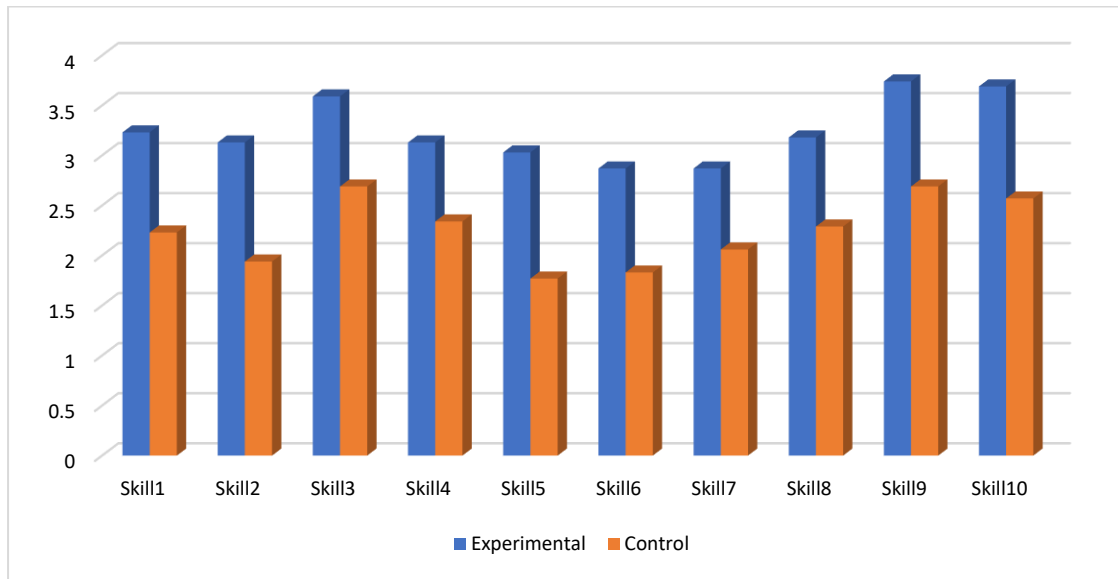
Skills	Group	No.	Mean	Std. Deviation	t-value	DF	$\alpha$ Sig	$\eta^2$
1(listen to identify the main idea of the audio text)	Experimental	39	3.23	1.09	4.215	72	0.01	0.197
	Control	35	2.23	0.94				
2(listen to infer the unstated details)	Experimental	39	3.13	1.00	5.660	72	0.01	0.308
	Control	35	1.94	0.76				
3(listen to predict certain circumstances within the conversation)	Experimental	39	3.59	0.82	3.493	72	0.01	0.145
	Control	35	2.69	1.37				
4(listen to identify the synonyms of	Experimental	39	3.13	1.10	3.322	72	0.01	0.133
	Control	35	2.34	0.91				

the key words in a conversation)								
5(listen to draw conclusion about who/what/and where of the situation)	Experimental	39	3.03	1.01	5.497	72	0.01	0.296
	Control	35	1.77	0.94				
6(listen to identify the meaning of the reduced forms)	Experimental	39	2.87	1.00	5.021	72	0.01	0.259
	Control	35	1.83	0.75				
7(listen to make inference about cause and effect)	Experimental	39	2.87	1.10	3.125	72	0.01	0.119
	Control	35	2.06	1.14				
8(listen to identify the expressions of uncertainty and suggestions)	Experimental	39	3.18	1.00	3.869	72	0.01	0.172
	Control	35	2.29	0.99				
9(listen to identify the meaning of idioms)	Experimental	39	3.74	0.68	5.107	72	0.01	0.266
	Control	35	2.69	1.08				

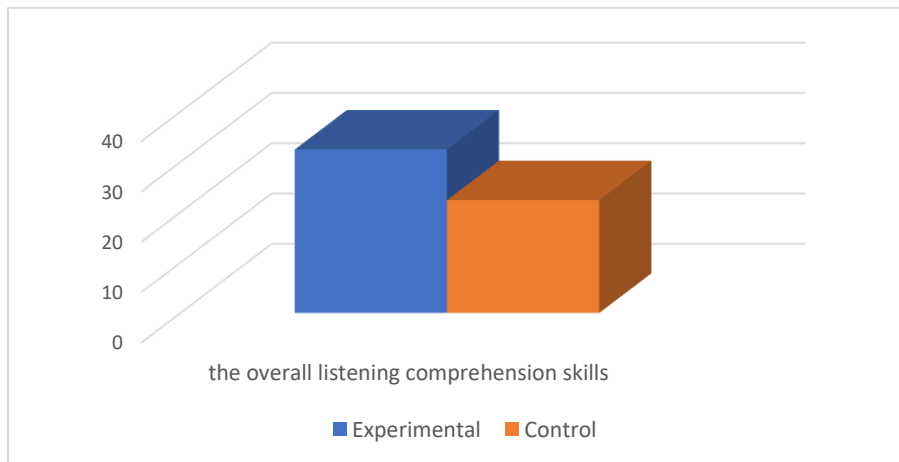
10(listen to deduce assumptions about the speaker's attitudes)	Experimental	39	3.69	0.73	5.416	72	0.01	0.289
	Control	35	2.57	1.04				
Over – all the Test	Experimental	39	32.46	2.65	15.577	72	0.01	0.771
	Control	35	22.40	2.90				

Table (9) indicates that there is a statistically significant difference between the means of the control group and experimental groups' scores on the post-application of EFL listening comprehension test for the EFL listening comprehension overall skills. All the t-values are significant at 0.001 level in favour of the experimental group. This indicates that the experimental group's EFL listening comprehension skills have been developed. Therefore, the first main hypothesis was confirmed.

In addition, the effect size ( $\eta^2$ ) of the experimental treatment on the overall listening comprehension skills ranged from (0.197-0.771) that was high and appropriate value, except (skill 4&7) that have a moderate effect. This indicates that a large proportion of the difference is due to the experimental treatment. Thus, there is a highly significant effect of the experimental treatment on the development of the overall listening comprehension skills. Figure (3 &4) shows these differences in a visual form.



**Figure (3) The Statistical Representation of the Study Participants' Mean Scores of listening comprehension sub-skills on the Post administration of the listening comprehension test.**



**Figure (4) The Statistical Representation of the Study Participants' Mean Scores of listening comprehension overall skills on the Post administration of the listening comprehension test.**

### Testing Hypothesis (2)

The second hypothesis states that “There is a statistically significant difference between the mean score of the experimental group in overall

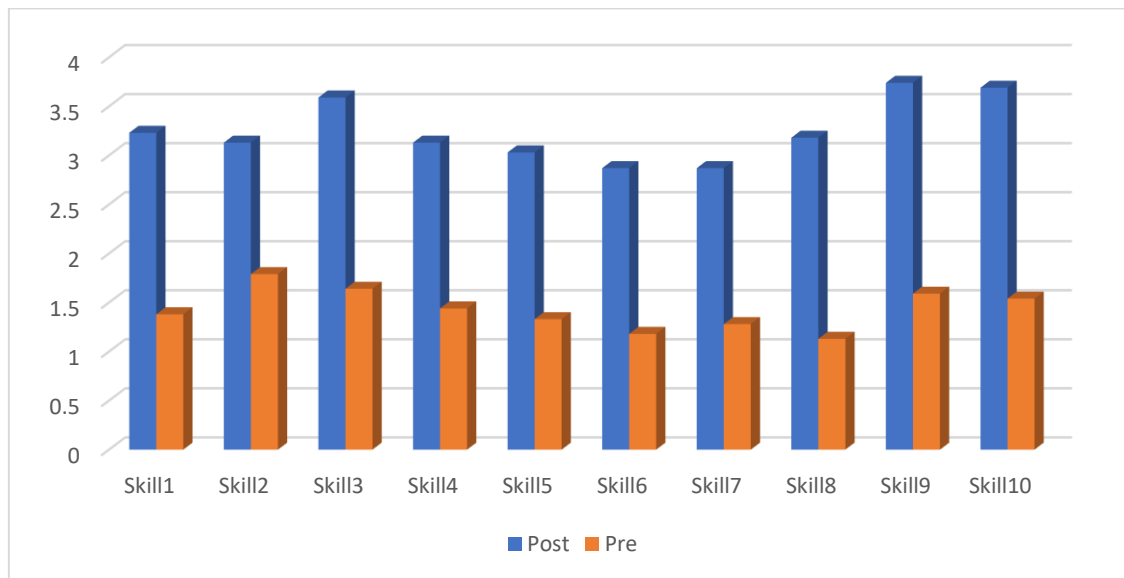
EFL listening comprehension skills and sub-skills on the pre and post administration of EFL listening comprehension skills test, in favour of post-administration.

For testing this hypothesis, the Paired-Samples T-Test was used to compare the mean scores of the experimental group in overall EFL listening comprehension skills and sub-skills on the post administration of EFL listening comprehension skills test. To calculate the total effect size of the experimental treatment on the writing skills as a whole, the effect size ( $\eta^2$ ) was calculated. Table (10) presents the mean scores, standard deviation and level of significance.

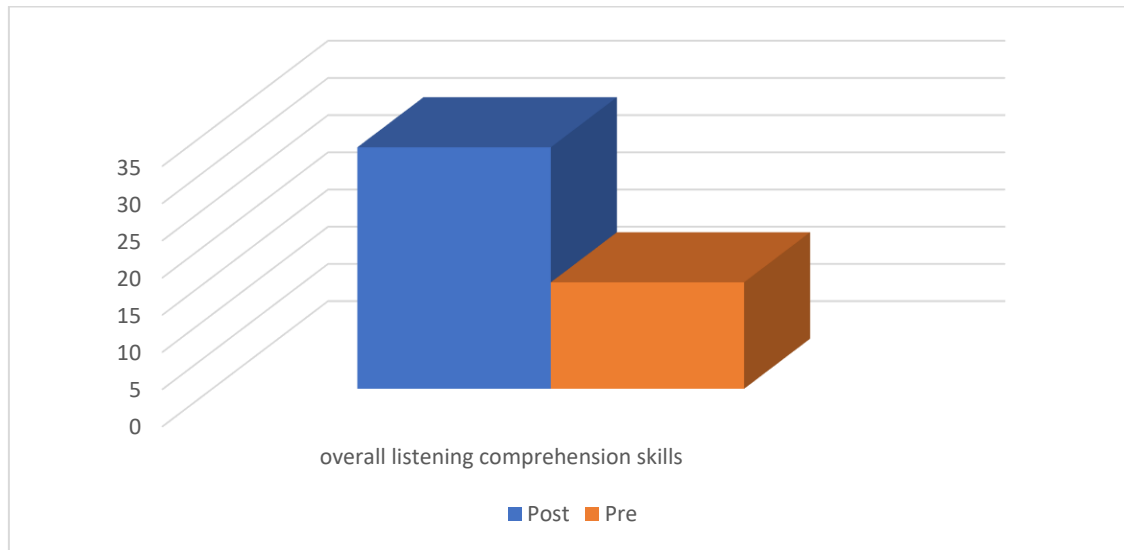
**Table (10): "t" test between the mean score of the experimental group in EFL overall EFL listening comprehension skills and sub-skills in the pre and post administration**

Skills	Test	No.	Mean	Std. Deviation	t-value	DF	$\alpha$ Sig	$\eta^2$
1	Pre	39	1.38	0.94	12.000	38	0.01	0.667
	Post	39	3.23	1.09				
2	Pre	39	1.79	0.61	7.211	38	0.01	0.578
	Post	39	3.13	1.00				
3	Pre	39	1.64	0.78	11.323	38	0.01	0.771
	Post	39	3.59	0.82				
4	Pre	39	1.44	0.91	7.883	38	0.01	0.621
	Post	39	3.13	1.10				
5	Pre	39	1.33	0.96	9.008	38	0.01	0.681
	Post	39	3.03	1.01				
6	Pre	39	1.18	1.00	9.008	38	0.01	0.681
	Post	39	2.87	1.00				
7	Pre	39	1.28	1.17	8.075	38	0.01	0.632
	Post	39	2.87	1.10				
8	Pre	39	1.13	1.00	11.919	38	0.01	0.789
	Post	39	3.18	1.00				
9	Pre	39	1.59	0.82	15.935	38	0.01	0.870
	Post	39	3.74	0.68				
10	Pre	39	1.54	0.85	15.935	38	0.01	0.870
	Post	39	3.69	0.73				
Over-all the Test	Pre	39	14.31	2.45	35.522	38	0.01	0.971
	Post	39	32.46	2.65				

According to table (10), there is a statistically significant difference ( $\alpha \leq 0.01$ ) between the mean scores of the study participants of the experimental group in the overall listening comprehension skills and sub-skills, on the pre-post administration of the EFL listening comprehension skills in favour of the post-assessment. Thus the second hypothesis was verified. In addition, the effect size ( $\eta^2$ ) of the experimental treatment on the overall listening comprehension skills ranged from (0.667-0.971) that was high and appropriate value. This indicates that a large proportion of the difference is due to the experimental treatment. Thus, there is a highly significant effect of the experimental treatment on the development of the overall listening comprehension skills and its sub-skills. Figure (5 &6) shows these differences in a visual form.



**Figure(5) The Statistical Representation mean score of the experimental group in EFL listening comprehension sub-skills in the pre and post administration**



**Figure (6) The Statistical Representation mean score of the experimental group in EFL overall EFL listening comprehension skills in the pre and post administration**

### Testing Hypothesis (3)

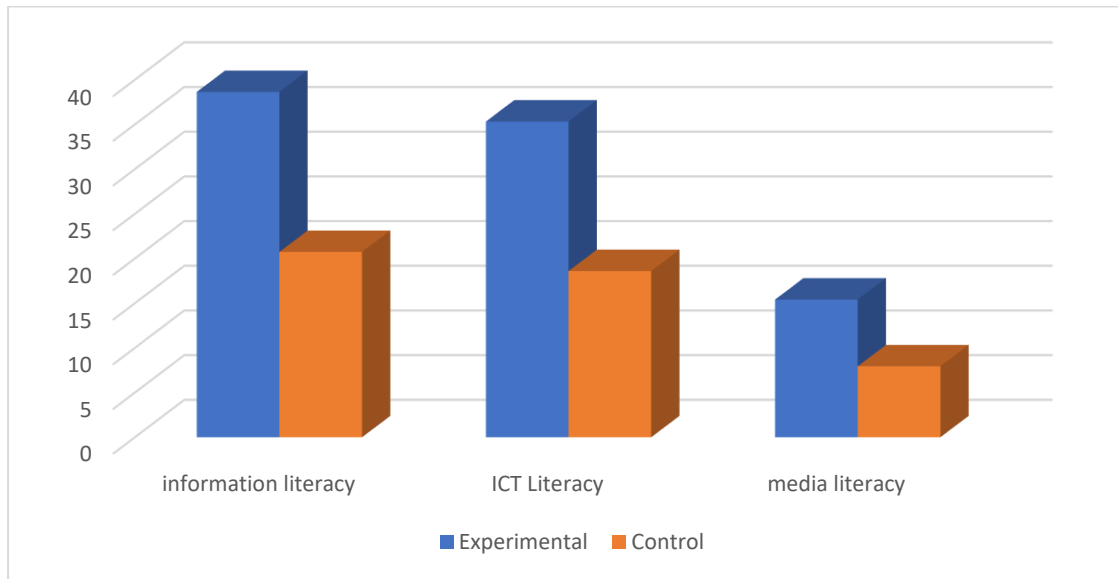
The third hypothesis states that "There is a statistically significant difference between the mean score of the experimental and control groups of the overall digital literacy skills and sub-skills on the post-administration of digital literacy scale, in favour of the experimental group. For testing this hypothesis, the independent sample T-test was used to compare the mean scores of the control group and experimental one in overall digital literacy skills on the post administration of digital literacy scale. To calculate the total effect size of the experimental treatment on the digital literacy skills as a whole, the effect size ( $\eta^2$ ) was calculated. Table (11) presents the mean scores, standard deviation and level of significance.

**Table (11): “t” test between the mean score of the experimental group and the control group in overall digital literacy skills and its dimensions.**

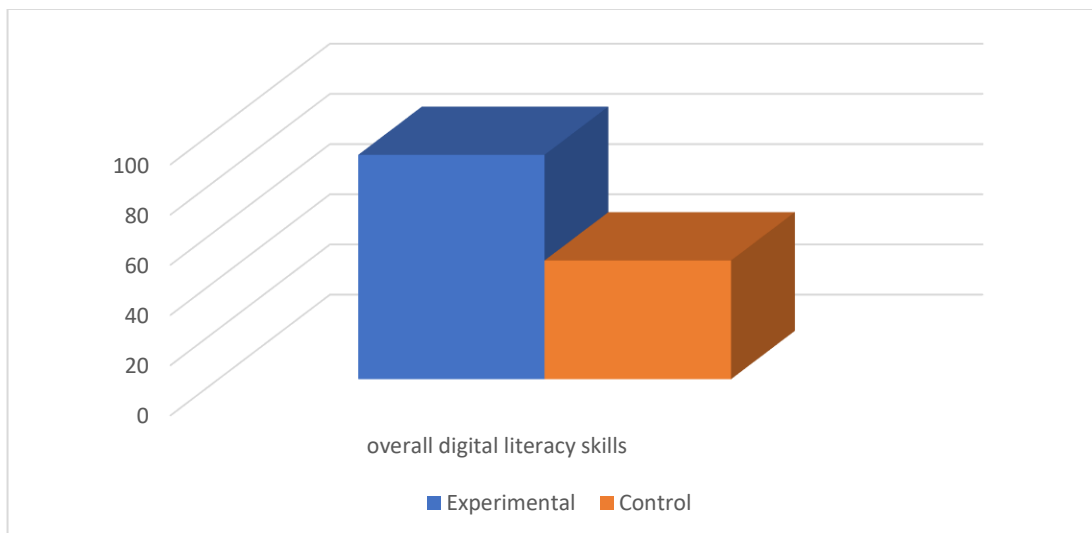
Skills	Group	No.	Mean	Std. Deviation	t-value	DF	$\alpha$ Sig	$\eta^2$
information literacy	Experimental	39	38.64	4.23	21.416	72	0.01	0.864
	Control	35	20.74	2.70				
ICT Literacy	Experimental	39	35.33	3.74	22.134	72	0.01	0.872
	Control	35	18.60	2.59				
media literacy	Experimental	39	15.41	2.27	16.834	72	0.01	0.797
	Control	35	7.94	1.39				
All Over Scale	Experimental	39	89.38	7.10	32.428	72	0.01	0.936
	Control	35	47.29	3.08				

According to table(11), there is a statistically significant difference ( $\alpha \leq 0.01$ ) between the mean scores of the study participants of the experimental group and control group in the overall digital literacy skills and its dimensions , on the post administration of the digital literacy skills in favour of the post-assessment. Thus the third hypothesis was verified. In addition, the effect size ( $\eta^2$ ) of the experimental treatment on the digital literacy skills ranged from (0.872 -0.936) that was high and appropriate value. This indicates that a large proportion of the difference is due to the experimental treatment. Thus, there is a highly significant effect of the experimental treatment on the development of the overall digital literacy skills and its dimensions. Figure (7 &8) shows these differences in a visual form.





**Figure (7) The Statistical Representation means score of the experimental group and control group in the three dimensions of the digital literacy skills in the post administration**



**Figure (8) The Statistical Representation means score of the experimental group and control group in the overall digital literacy skills in the post administration**

**Testing Hypothesis (4)**

The fourth hypothesis states that “There is a statistically significant difference between the mean score of the experimental group in overall digital literacy skills and sub-skills on the pre-post administration of digital literacy scale, in favour of post-administration.

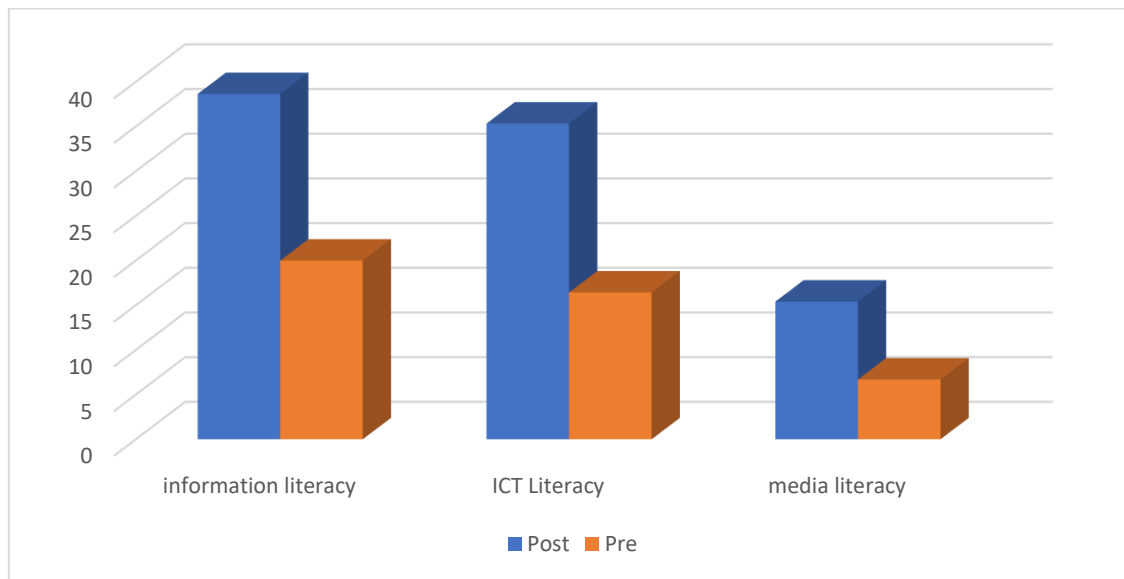
For testing this hypothesis, the Paired-Samples T-Test was used to compare the mean scores of the experimental in overall digital literacy skills and its sub-skills on the pre-post administration of digital literacy scale. To calculate the total effect size of the experimental treatment on the digital literacy as a whole and the sub-skills, the effect size ( $\eta^2$ ) was calculated. Table (12) presents the mean scores, standard deviation and level of significance.

**Table (12): "t" test value between the mean score of the experimental group in the overall digital literacy skills and sub-skills in the pre and post administration**

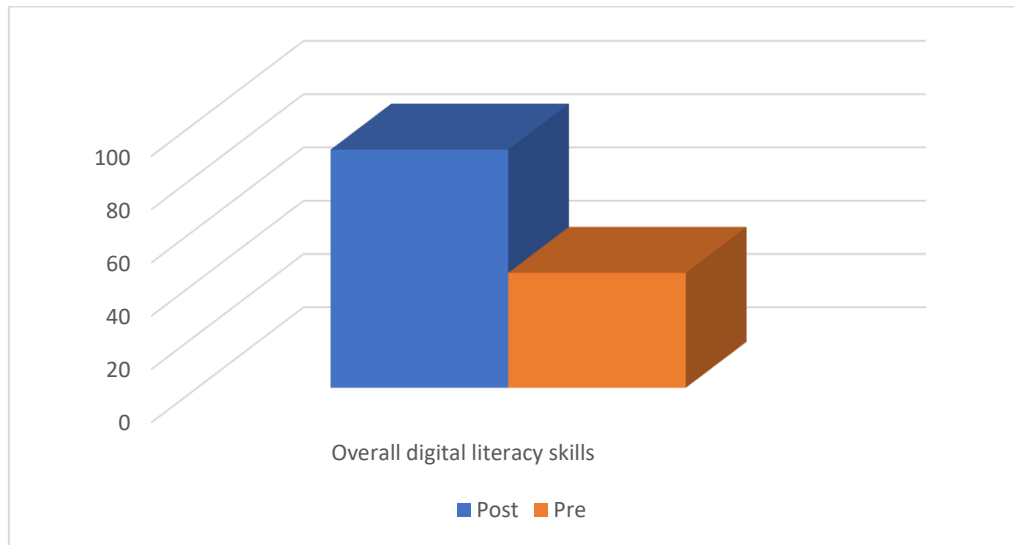
Skills	Test	No.	Mean	Std. Deviation	t-value	DF	$\alpha$ Sig	$\eta^2$
information literacy	Pre	39	20.00	4.29	32.453	38	0.01	0.965
	Post	39	38.64	4.23				
ICT Literacy	Pre	39	16.43	2.94	30.699	38	0.01	0.961
	Post	39	35.33	3.74				
media literacy	Pre	39	6.69	2.13	15.718	38	0.01	0.867
	Post	39	15.41	2.27				
All Over Scale	Pre	39	43.12	7.39	35.661	38	0.01	0.971
	Post	39	89.38	7.10				

According to table(12), a statistically significant difference ( $\alpha \leq 0.01$ ) between the mean scores of the study participants of the experimental group in the overall digital literacy skills and sub-skills , on the pre-post administration of the digital literacy scale in favour of the post-assessment. Thus the fourth hypothesis was verified. In addition, the effect size ( $\eta^2$ ) of the experimental treatment on the overall writing skills ranged from (0.965 -0.971) that was high and appropriate value. This indicates that a large

proportion of the difference is due to the experimental treatment. Thus, there is a highly significant effect of the experimental treatment on the development of the overall digital literacy skills and its sub-skills. Figure (9 &10) shows these differences in a visual form.



**Figure(9) The Statistical Representation mean score of the experimental group in the digital literacy sub-skills in the pre and post administration**



**Figure(10) The Statistical Representation mean score of the experimental group in overall digital literacy skills in the pre and post administration**

#### **Testing Hypothesis (5)**

The fifth hypothesis states that “There is a statistically significant positive correlational relationship between experimental group students’ scores in the post-assessment of the EFL listening comprehension skills test and digital literacy scale

For testing this hypothesis, the Pearson correlation was used to compare the scores of the experimental group scores in the post-assessment of the EFL listening comprehension skills test and the digital literacy scale. This means, the higher the scores of the experimental group students in the EFL listening comprehension test, the higher their scores in the digital literacy scale, and this indicates the acceptance of the fifth hypothesis of the research. Table (13) presents this correlation.

**Table (13): "the correlation between the scores of the experimental group in the post-test of the EFL listening comprehension skills and post-test of the digital literacy scale.**

Variables	Pearson Correlation	Sig.
Listening comprehension skills	.0843**	0.001 -
Digital literacy skills		

According to table (13), there is a statistically significant positive correlation at ( $\alpha \leq 0.01$ ) between the scores of the experimental group in the post-assessment of the EFL listening comprehension skills test and digital literacy scale.

### **7- Discussion and Interpretation of the Study Findings:**

This part is comprehensive explanation and discussion of the previously stated findings attempted in the preceding part of the research. The findings are interpreted and deliberated in the light of the study hypotheses.

Regarding the first and second hypotheses of the research, the findings revealed that there was statistically significant difference between the mean scores of the experimental and control groups on the overall EFL listening comprehension skills and sub-skills on the post administration of EFL listening comprehension skills test in favor of the experimental group. T-value was **15.577** which is significant at 0.01. This means that the experimental group attained more enhancement than the control one in their EFL listening comprehension skills and its sub-skills. Also, in the pre-post administration of overall EFL listening comprehension skills and sub-skills for the experimental group, the participants showed a significant progress for the post- administration. These results confirmed the first and second hypotheses statistically.

The amount of weekly exposure to the aural input through the sessions of the program was a key point in the effectiveness of the ubiquitous learning tools (podcast and TED talks). In the current study, the average length of the podcasts or TED talks that students listened to was about seven minutes, but students reported spending almost one hour on their listening log task including listening to the podcasts or TED talks for arranging the

reviews. As a digital tool in language learning, podcast and TED talks can draw students' courtesy through the numerous contents. Such result is consistent with the studies of ( Gavenila, Wulandari, & Renandya, (2021); Al-Jarf, (2021); Syahabuddin, & Rizqa, (2021)

The participants in the experimental group watched and listened to the assigned audio materials individually, in pairs or in small groups according to the task requirement. They can watch and listen to the materials in class even in (face to face) sessions, online synchronously or asynchronously at home. In the listening stage of the session, the participants took notes of some terminology and pay attention to the structure of the data as to whether it is, cause-effect or comparisons-contrasts. They answer listening comprehension questions about: the main ideas and supporting details; the inference about cause and effect; meaning of reduced forms; identify the synonyms of the key words; listen to identify the expressions of uncertainty; meaning of idioms and listen to identify the speaker's attitude.

After listening to the ubiquitous learning materials, the students summarize and paraphrase the content orally and in written form through using flow charts, diagrams and mind maps. The participants discussed their answers with each other and with the researcher. They discussed answers to questions individually, in pairs and in small groups according to the tasks of each session of the program. They discussed with their instructor difficulties in vocabulary and grammatical structures and practice pronouncing unfamiliar word. Answers and summaries were posted on Microsoft Teams platform in online sessions or discussed face to face in classroom.

The researcher found that students in the experimental group had a high incentive to study English by using podcast and TED talks due to their features such as numerous ELT classroom accomplishments. Precisely, ubiquitous learning tools through the sessions of the program offered the participants the opportunity to enthusiastically respond to the tasks of the instructor. Some tasks and activities after listening to podcasts motivated the study sample to use their creativity to improve their listening skills. This enhancement can be seen directly from students' enthusiasm during treatment period using podcast in the program sessions. Moreover, the ubiquitous learning materials that were presented through Podcasts and TED talks were authentic learning materials; easy downloading; sample access and had interactive transcript feature.

The findings of this study showed that apprentices should be provided with suitable resources where they can learn how to comprehend the English language. By using podcasts and TED Talks, instructor provided the opportunity to the participants of the study to listen to native speakers' speech. Participants generally enjoy using the ubiquitous learning tools. Learners see podcasts as an effective tool that has reasonably improved their oral performance in English learning. The participants were provided by interactive environment. Students' listening skills were developed as the content was relevant and meaningful to them. Such result is consistent with the studies of (Tursunova,. (2021); Humeniuk, Kuntso, Popel, & Voloshchuk, (2021)

Concerning the third and fourth hypotheses of the research, the findings showed that there was a statistically significant difference between the control group and the experimental groups mean scores in the post-assessment of EFL overall digital literacy skills and its sub-skills in favor of the experimental group as T-value was 32.428 which is significant at 0.01. This means that the experimental group achieved more development in their digital literacy skills and its sub-skills. Also, in the pre- post administration of the digital literacy scale and its sub-skills for the experimental group, showed a significant progress for the post-administration. These results confirmed the third and fourth hypotheses statistically.

The ubiquitous learning-based program has verified to be effective in developing digital literacy skills and its sub-skills for the experimental group. This progress can be certified to various sources. The researcher used authentic resources that were proper to students' performance and promote their interest in practicing digital literacy skills. This result was consistent with the study of (Akayoglu, Satar, Dikilitas, Cirit, & Korkmazgil, (2020); Alakrash, & Abdul Razak, (2021); Palacios-Hidalgo, & Huertas-Abril, (2022).

Thus, the results indicated the necessity of using ICT for participants in EFL instruction as educator training tools with definite consistency. Similarly, the majority of participants in the program asserted the potential of ICT for improving their proficiency in English and in EFL listening skills, which is consistent with previous studies that indicate how technology means can develop language learning (e.g. Kang, 2019; Rodríguez et al., 2017). They were trained in the program sessions on the

information literacy skills such as: different sources of information online and how to save information on the computer. They practiced how to use the cloud computing technologies such as google drive; i cloud effectively in daily life. The researcher helped them how to search for a safe sources and websites. Moreover, their media literacy skills were developed, as they trained how to record podcasts and edit sounds, share presentation through different digital technologies.

To sum up, it can be asserted that the ubiquitous learning –based program was effective in developing prospective teachers’ EFL listening comprehension and digital literacy skills.

### **8- Conclusion**

The results of the study asserted that the participants' EFL listening comprehension skills and digital literacy were developed through the implementation of the ubiquitous learning (tools)-based program. Additionally, the materials, tasks and activities used in the sessions of the program helped to create a collaborative atmosphere which contributed significantly in developing EFL listening comprehension and digital literacy skills among EFL third year prospective teachers. The findings of this study showed that EFL apprentices should be provided with suitable resources in which they can learn how to realize the English language conversations. By using podcasts and TED talks, instructors can give EFL apprentices the chance to listen to native speakers’ speech. Based on the results gained from this study, a positive effect of certain tasks such as using podcast and TED talks on autonomous /non-autonomous EFL learners’ listening comprehension ability at pre-intermediate level can be concluded.

Therefore, results of the present study indicted the effectiveness of the ubiquitous learning tools (Podcasts and TED talks)-based program in developing prospective teachers’ EFL listening comprehension skills and digital literacy.

### **9- Recommendations of the study:**

Based on the previous results, the following recommendations can be proposed:

- EFL teachers should be trained on applying the ubiquitous learning tools in classes.



- Investigating the effect of using the ubiquitous learning -based program in TEFL.
- Curriculum designers must take into their account the significance of embedding the ubiquitous learning implications in the syllables of diverse stages.
- EFL university instructors should encourage their students to use the ubiquitous learning tools in their teaching.

### 10- Suggestions for further Research:

Within the limitations of the current study as well as the findings being accomplished, the following research areas are proposed for additional inquiry:

- Replication of the study variables with freshmen students at the Faculty of Education.
- Replication of the study variables with the higher studies students at the Faculty of Education.
- Using the ubiquitous learning-based program to develop prospective teachers' professional development.
- Conducting further studies on the effects of ubiquitous learning to enhance EFL student teachers' vocabulary acquisition.
- Developing other language skills among EFL student teachers such as speaking through employing the ubiquitous learning based program.
- Investigating EFL students' attitudes towards using the ubiquitous learning tools.
- Examining the effect of using the ubiquitous learning tools on EFL prospective teachers' oral reading skills.

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