The Impact of using Virtual Language Labs on Developing Listening Skills and Motivation of EFL Prospective Teachers

Prepared by
Dr. Esraa Ramadan El-sayed
Lecturer of Curriculum & EFL Instruction
Hurghada Faculty of Education, South Valley University

Abstract

Listening is a critical language skill because it enables pupils to construct language such as speaking and writing using the vocabulary they acquire via listening. Listening creates the groundwork for all areas of language and cognitive development, and it plays a vital role in the processes of learning and communication required for healthy involvement in life. The present study aimed to investigate the effect of using a virtual language laboratory on developing 4th year English majors' listening skills. And it also investigated the effect of using virtual language laboratories on developing their motivation towards learning English. The participants of the study comprised 35 fourth-year EFL majors at Hurghada faculty of education, South Valley University. They were chosen because they need to involve in authentic listening activities, develop their English listening comprehension, and enhance positive motivations towards learning English and teaching it in the future. The following instruments and materials were used: A listening comprehension test, a motivation Scale and a Virtual Language Lab program (VLLP). Results showed that using virtual language laboratories had a positive effect on developing the participants listening skills as they enable students to select learning tools suitable to their level of knowledge and, more importantly, their interests. They also revealed that using virtual language laboratories enhanced the students' motivation.

Keywords: *Virtual Language Labs – listening skills - EFL majors -Motivation*

تأثير استخدام المختبرات اللغوية الافتراضية في تنمية مهارات الاستماع
والدافعية لدى الطلاب المعلمين للغة الانجليزية بكلية التربية

د. إسراء رمضان السيد

مستخلص الدراسة :

تعد مهارة الاستماع مهارة لغوية حاسمة لأنها تمكن التلاميذ من بناء اللغة وتطويرها ولاسيما مهارات التحدث والكتابة كما أنها توفر الأساس التي تقوم عليه جميع مجالات اللغة والنمو المعرفي، وتستمر في لعب دور حيوي في عمليات التعلم والتواصل المطلوبة للمشاركة الفعالة في أنشطة الحياة المختلفة. ومن هذا المنطلق، هدف البحث الحالي إلى معرفة تأثير استخدام معمل اللغة الافتراضية على تنمية مهارات الاستماع لطلاب الفرقة الرابعة تخصص اللغة الإنجليزية في كلية التربية بالغردقة بجامعة جنوب الوادي. كما تم تقصي أثر استخدام معمل اللغة الافتراضية في تنمية دوافعهم لتعلم اللغة الإنجليزية. تكونت عينة الدراسة من ٣٥ من الطلاب المعلمين بكلية التربية بالغردقة تخصص تدريس اللغة الإنجليزية، جامعة جنوب الوادي. تم اختيار أفراد عينة الدراسة ممن هم في حاجة للمزيد من أنشطة الاستماع باللغة الإنجليزية، ولتعزيز الدافعية لديهم في المستقبل لاسيما عند انضمامهم للعمل كمعلمين لتدريس استخدام الأدوات والمواد التالية: مقياس مهارات اللغة الإنجليزية. ولتحقيق أهداف الدراسة تم الاستماع، ومقياس الدافعية نحو اللغة الإنجليزية والبرنامج القائم علي المعامل الافتراضية اللغوية. أظهرت النتائج أن استخدام مختبرات اللغة الإفتراضية له تأثير إيجابي في تنمية مهارات الاستماع لدي المشاركين لأن تلك المختبرات قدمت نماذج أصيلة للغة بالإضافة إلي أن تلك المختبرات زادت من دوافع الطلاب المعلمين.

الكلمات المفتاحية: المختبرات اللغوية الافتراضية – مهارات الاستماع – الطلاب المعلمين للغة الانجليزية بكلية التربية – الدافعية

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Introduction

English is the universal language of business and commerce. Learning a new language necessitates a good command of the language's four major linguistic abilities. Students learn foreign languages by listening, speaking, reading, and writing, among other methods. One of the most prevalent ways that students use language to communicate is via listening. Allowing students to listen to different kinds of materials can help them learn new words and increase their vocabulary.

When it comes to learning a language, particularly English, the first step for students is to practice listening skills. The ability to receive information is a receptive talent, and it is a very significant skill in foreign language classrooms because it offers input for the students; by listening to authentic materials, the students can produce language, such as speaking and writing, using vocabulary that they have learned from hearing. For the majority of people, being able to claim knowledge of a foreign language entails being able to communicate in that language both verbally and nonverbally (Richard & Renandya, 2002).

Listening is, therefore, a communicative behavior in which listeners attempt to develop an acceptable understanding of a text for some goal (Nor, 2014). Therefore, effective listening performance has been linked to improved gains and a favorable impact on individuals' self-efficacy and positive self-image (Siew & Wong, 2011), and in decreased levels of foreign language classroom anxiety (Magogwe & Oliver, 2007; Serraj & Rourdin, 2013). Similarly, Kassem (2015) linked good listening practices to greater levels of comprehension and high self-efficacy views among Egyptian EFL college students. Although listening plays an important role in language learning, according to Taghinezhad (2015), it is still an area where students feel most discouraged and helpless. Listening, in his opinion, has been emphasized for a long time.

Listening is one of the most neglected skills of all language skills. It's tough to put into words what it's like to engage in a covert activity that can't be easily investigated (Cakr, 2018). According to Lang and Ross (2009), view that listening is the most challenging of the four language skills as it demands cognitive processing of a wide range of

variables, including linguistics, communicative, contextual, and cognitive variables. In addition, Mupa, et al. (2015) stated that there are certain barriers to listening that include unsuitable teaching tactics, irrelevant and uninteresting information, and dull instructional practices. Several studies (e.g., Abo-Elkassem, 2009; Ahmed, 2014; Al-ammary, 2015; Hassan, 2015; Ghoneim, 2013) showed that Egyptian EFL students have trouble understanding listening scripts. Students ascribed their difficulties to a lack of instruction in listening skills, a scarcity of audio resources, and a lack of time to practice listening tasks. This issue appears to be present at various levels of education across the Egyptian educational system. Especially at the high school and college levels of foreign language education.

Therefore, teaching listening to EFL students is one of the most challenging jobs a teacher can undertake. The main reason for this is that effective listening skills are developed over time and via extensive practice. Students find it frustrating since there are no norms to follow, unlike in grammar instruction. To claim that there aren't strategies to improve listening skills is not to say that there aren't any; rather, they are difficult to quantify. Listening skills can be taught through a variety of ways, including the use of a tape recorder, answering questions based on the text, rewriting songs, viewing television while watching video movie clips, or listening to a CD-Rom, listening to the radio while using dictation, and so on. Teachers make an effort to employ the most appropriate strategy to help the students gain a better understanding of their lessons, and they can use this technique to improve their other English skills, such as speaking, reading, and writing (Nor, 2014).

Information and Communication Technologies (ICT) applications have evolved into important tools for education and development since technology altered society in the twentieth and twenty-first centuries. ICT has offered language learners excellent learning opportunities in all aspects of their education, allowing them to develop their EFL skills to be used afterwards in exciting and relevant situations. The virtual language laboratory is an example of how technology can be used in the classroom.

Language laboratories are used to improve the learning environment for language learning; they are used to make the instructional strategies more effective and interesting, they are used also to enhance conversational skills while having fun. Language laboratories are an excellent resource for practicing and measuring one's speech, as

well as testing talents and studying independently of teachers. Language labs improve motivation, alleviate fear, and acclimate students (Yau & Cheng, 2012; Oz, 2015; Manurung, 2015; Kilickaya, 2015). However, it appears as though laboratories are dwindling in popularity, with private universities abandoning them in favor of classroom smartboards.

Teachers employ virtual language laboratories to foster students' independence in their studies while simultaneously enhancing their language skills (Yi-Lien & Karey, 2017). Students can focus on their specific abilities and needs in virtual language labs. Students can also select learning tools in a virtual laboratory based on their level of knowledge and, more importantly, their interests. Students' capacity to join discussions at any time and communicate with classmates and teachers in chatrooms is enhanced when they use virtual language labs. When using online language laboratories, different learning styles can be accommodated and learning can be supported through a variety of activities. Students appear to be intrigued by cutting-edge technological advancements and eager to see them in action in the classroom (Mozgoyov, 2012).

Moreover, students can increase their learning at their own pace, according to Hismanoglu (2012), while also developing other communication skills, such as teamwork and sharing, through virtual learning methodologies. It is possible to merge real-world language learning environments into the virtual learning environment, resulting in a language learning platform that is beneficial in terms of building communication skills. Berns (2016) states that virtual learning environments may be implemented into language communication courses in a variety of ways and are beneficial.

The current study was an attempt to supplement the traditional language laboratory with one of the most cutting-edge technological interventions in recent years, namely a virtual environment. The virtual labs-based program was designed to help fourth-year students at the Hurghada Faculty of Education enhance their listening skills and motivation.

1.2 Context of the problem

Abdelhalim (2014), Helwa (2017), Safein (2018), Mahmoud & Taha (2022) declared that EFL prospective teachers have numerous problems when it comes to their listening performance. In general, most of them suffer from numerous symptoms of listening comprehension failure in foreign language learning settings.

As an instructor at Hurghada Faculty of Education, the researcher noticed that EFL majors had a lot of trouble understanding the spoken language while teaching the course of TEFL; they always ask for the words to be repeated and for more clarification on the oral presentations, indicating a problem with their listening skills. To make sure of the problem, the researcher performed a semi-structured interview with a group of English language majors (30); students articulated difficulty in listening comprehension, difficulty understanding audio texts, and frustration with the current situation.

In addition, semi-structured interviews with a group of English majors have been conducted to decide the nature of the problem; students expressed difficulty in listening comprehension, problems in understanding audio texts, the neglect of practicing listening skills. In addition, students articulate their difficulty mainly in listening to authentic materials.

The researcher conducted a pilot study on EFL prospective teachers at Hurghada faculty of education in an attempt to investigate the status quo of their listening performance in foreign language settings. To determine students' listening skills, the researcher gave a random sample of EFL majors (30) a listening test. Test results revealed that students performed poorly in extracting specific information from listening selections, guessing the meaning of unfamiliar words from context, making inferences, identifying main ideas in spoken discourse, recognizing the speaker's motivations and opinions, pinpointing functions in conversations, recognizing lexical chunks and idioms, and following details without being distracted.

Accordingly, the poor performance of 4th year English majors in Hurghada Faculty of Education in listening skills, as well as their complaints about problems with the teaching methods for those skills, the current study attempts to investigate the effect of using a virtual language laboratory on developing 4th year English majors' listening skills and motivations to learn English.

1.3 Objective

The present study aimed to investigate the effect of using a virtual language laboratory on developing 4th year English majors' listening skills. It also sought to prob into the effect of using virtual language laboratories on developing their motivation towards learning English.

1.4 Questions

The present study attempted to answer the following question:

What is the effect of using a virtual language laboratory on improving listening skills and motivation towards learning English of a fourth-year English major?

This main question branched out into the following sub-questions:

1. What is the effect of using a virtual language laboratory on developing listening skills of 4th year English majors?

2. What is the effect of using a virtual language laboratory for developing motivations towards learning English for 4th year English majors?

1.5 Hypotheses

The current research tested the following main hypotheses:

1. There are statistically significant differences at the mean scores of the experimental group in the pre/posttests of the listening skills favoring the posttest.

2. There are statistically significant differences at the mean scores of the experimental group in the pre/post motivation scale favoring the posttest.

1.6 Significance

The current research is significant for a variety of reasons; it is directed to EFL student-teachers at Hurghada faculty of education. Enhancing the listening abilities of English language majors is critical to instill these abilities in their students later on. Listening is a foundational skill and has historically been viewed as the primary channel for language development especially for EFL teachers. Student teachers learn and absorb the meaning of what they hear through listening. Additionally, this research may improve EFL teachers' teaching methodologies by increasing their awareness of the benefits of virtual

language laboratories as a supportive tool for language skill improvement.

Additionally, this research may assist educational decision-makers by assisting them in designing online environments that foster positive attitudes and motivations toward EFL learning and eliminate the barriers that users of traditional language labs face. Additionally, the current research may contribute to the modification and qualification of teaching practices based on the use of new technology tools. Additionally, it may be used as a supporting document for further research in the field of EFL research.

2. Literature Review
2.1 An overview of Language Labs

The study of phonetics, which began in the late nineteenth century, prompted the construction of language laboratories that included audio-lingual applications. Students in these language labs work on electronic listening, reading, and grammatical drills, with no opportunity for human discourse or social engagement with their peers or teachers (MacDonald, 2011). However, these types of labs are insufficient for the improvement of communication competence. According to Weyers (2010), students studying foreign languages require more exposure to authentic listening scripts to improve their language skills.

According to Carruthers (2015), typical audio laboratories have several difficulties, including inefficient lab teaching materials and bad comments from the laboratory's teachers and students, among other things. Now, teachers may work synchronously and in real-time with students on their own, in pairs, and in groups, rather than waiting to correct student recordings after they have been recorded and gathered back into a classroom setting (Kaul, 2020). Students' language abilities are developed in a meaningful and conversational manner in the language laboratory, which is one of the most spectacular facilities on campus. A language-learning room equipped with audio technology allows students to listen to recorded courses and answer in real-time while an instructor monitors their progress. Students learning a foreign language can practice sound and word patterns in a language laboratory, either alone or under the guidance of a teacher.

Teachers' consoles and language learning tools are available in the Language Lab (Devi et al., 2019). Pronunciation correction engagingly

and communicatively can be practiced at one's own pace on this platform As stated by Kaul (2020, 294), language labs are best suited for the following objectives: a) improving language proficiency through accurate pronunciation; b) enhancing discourse proficiency to help EFL students produce clear and contextualized speech, and c) developing strategies competency for spoken language to be used in a variety of communication strategies. Therefore, the language lab is an important tool for students who are learning a foreign language since it provides examples of pronunciation and spoken grammar. As a result, students frequently visit the language laboratory to review and practice what they've learned.

Several studies have been conducted to assess the impact of using virtual language labs on developing language skills, especially listening skills. Among these studies is the study of Sihite (2017) that investigated the effectiveness of a learning process in the listening subject of English as a second language by utilizing a language lab technique by educating grade III students from the HKBP Nommensen University of Medan. The findings of the study revealed that the data follows a normal distribution pattern. There is evidence of the effectiveness or influence of the laboratory work approach in raising students' achievement in English language teaching, particularly in listening and laboratory work situations. Another one of the most interesting features of the lessons was the way the teacher incorporated different technology and utilized their potential for language learning. This was one of the most interesting components of the lessons. In addition, the teacher utilized the lab space as a classroom environment quite successfully, incorporating a range of pace and interaction patterns.

In addition, Yagub, et al., (2014) investigated the influence of using language labs for acquiring speaking skills. It also assessed the attitudes of teachers toward improving speaking skills in learners, as well as the variations between them when it comes to practicing speaking skills in language laboratories. The sample of the study comprised 30 teachers of English language at the Department of English language, College of Education, Sudan University of Science and Technology. Results of the research showed that: a) the usage of language laboratories can be an excellent tool for encouraging the development of oral communication skills, b) language laboratories inspire students and help them enhance their speaking skills by allowing them to practice in a group setting, c) language laboratories provide native-speakers with a

safe atmosphere in which to hone their public speaking skills, d) students participating in listening activities in laboratories is a useful method in language learning, e) language laboratories include engaging exercises to improve students' oral communication skills as well as their pronunciation, f) in the laboratory, pictures are used as a means of igniting conversation.

Furthermore, Nadjah, (2013) investigated the impact of the language laboratory on foreign language instruction and learning in general. It investigated students' attitudes toward using the language laboratory in language learning; more specifically, it investigated the hypothesis that the English language laboratories have a tangible effect on improving students' listening skills, which was the focus of this study. To put it another way, the study attempted to determine the impact of language lab on the improvement of students' listening abilities. A questionnaire was administered to third-year English LMD/sciences students at the University of Bouzareah's language department. Eventually, the results demonstrate that the hypothesis was verified.

2.2 Virtual Language Labs

The limits of language laboratories can be overcome by the application of technical discoveries and developments in information and communication technology. Thorne and Payne (2005) discussed generational trends in information and communication technologies, their growth, and their applications. Utilizing ICT results in the development of online teaching tools that facilitate or mediate intercultural communication for FL learning, such as blogs, wikis, podcasting, and device-independent forms of synchronous computer-mediated communication, as well as advancements in intelligent computer-assisted language learning.

As a result, virtual learning environments give unique chances for facilitating communication, such as text-based and voiced online chat, that is not available anywhere else. It is possible to use virtual language labs to assist teachers in monitoring, controlling, and delivering multimedia content, as well as grouping, displaying, reviewing, and collecting audio, video, and web-based multimedia content (Bell & Trueman, 2008). They give students greater listening flexibility by allowing them to rewind, pause, start, go back to the last quiet, record, fast forward, repeat, phrase, and bookmark their listening sessions.

Individuals study on their own, at their speed, regardless of barriers such as time and geography. Virtual language laboratories offer a student-centered approach to learning since they assist students in improving their language abilities through online instruction. Both professors and students can collaborate to achieve the aims of the educational process in virtual language labs, which are available on the internet (Hansson, 2008).

A virtual lab is a realistic simulation that allows students to learn in a hands-on environment similar to that of a real lab. To this end, McDonald (2011) develops a virtual language laboratory that allows students to access assistive technology resources to better their second language learning experience without having them visit a physical site. Virtual environments can provide distance learners with the tools and capabilities they need to practice communicative skills, or they can serve as a virtual language laboratory to support on-campus language courses.

In addition to improving students' practical skills, virtual language laboratories allow students to learn without being restricted to a specific location or time (Ange, 2019). Virtual languge laboratories includes learners in the process of learning new concepts, asking for timely feedback from teachers, and ultimately coming to their own opinions about those concepts. As a result, using virtual language labs motivates them and allows them to build new skills that they may put to use in their everyday lives (Bhattacharjee, et al. 2020).

Authenticity, precision, individualization, and iterative practice are all intertwined in these virtual language labs, which rely on simulating real-world situations. Virtual world encounters can aid in the learning of a new language through mixed reality interactions (Girvan & Savage, 2019). Students can practice in a realistic environment while still keeping a low-stress environment by switching to a virtual learning environment instead of a traditional one.

Hassan et al. (2016) found that Iraqi students' FL positive response increased their English abilities and competency through involvement with the avatar helped them reduce language anxiety, making studying English more enjoyable and less stressful for them. Previous studies on virtual environments and language acquisition have shown that this technology can be used to increase language learning (e.g., Deutschmann, Panichi, & Molka-Danielsen, 2009; Diehl & Prins, 2008; Ya-Chun & Yang, 2008; Shively, 2010; Arteaga, 2018; Alemi, 2020).

Since virtual reality environments have been shown to improve several language skills in a recent review of literature, this study aimed to improve listening abilities utilizing a virtual lab.

2.3 EFL Listening Skills

In the classroom, listening is one of the most crucial abilities to enhance students' English proficiency. Students are exposed to a wide range of spoken instructions and explanations in the classroom, including those offered by the teacher, lectures, and other students. Listening is the Cinderella skill in second language learning (Nunan, 1997). Unfortunately, "it is frequently overshadowed by its older sibling: speaking" (p. 42). Teachers, of course, prefer to focus on the productive aspects of language learning because they believe listening to be a passive skill. In some cases, it seems that teachers aren't aware that students learn new vocabulary, grammar, pronunciation, and intonation when they listen to spoken material.

Listening comprehension is at the core of second language acquisition and therefore demands a much greater prominence in language teaching (Richards & Renandya, 2002). Throughout the history of language acquisition, there have been numerous fads that have come and gone regarding the importance of listening skills. It was given a boost in the 1960s when the emphasis was placed on spoken language skills. Once more, it rose to popularity in the 1980s, thanks to Krashen's (1982) ideas concerning understandable input. Later, Asher's Total Physical Response reinforced it (TPR) (Asher, 1965). Several different comprehension-based language teaching proposals share the belief that: (i) comprehension abilities precede productive skills in language learning; (ii) teaching speaking should be delayed until comprehension skills are established; and (iii) skills acquired through listening can be transferred to other skills.

Language acquisition and learning are both facilitated by the ability to listen. In addition to helping students improve their pronunciation, and teaching them how to speak more clearly and effectively. For efficient communication, listening is a good way to demonstrate the many verbal functions. Increasing one's ability to comprehend and communicate with people is possible when one learns how to listen effectively. To put it another way, almost half of our daily lives are based on the ability to listen, and the other half is occupied by

the other three skills; speaking, reading, and writing (Solak, 2014). It is especially significant when learning a language for communicative purposes because it aids in the acquisition of pronunciation, word stress, vocabulary, and syntax, and the understanding of information presented may simply be based on the tone of voice, pitch, and accent (Renukadevi, 2014).

When it comes to teaching grammar and vocabulary, Murcia (2000) says that "Listening comprehension lessons serve as a vehicle for the teaching of aspects of grammatical structure" (p. 70). However, listening is the most commonly utilized language skill in everyday life. It has received little attention in language training despite its relevance (Thanajaro, 2000). Language learners have long underestimated the value of listening abilities in learning a new language. Nonetheless, they also frequently believed that listening skills could be learned just by being exposed to them, and hence training them wasn't necessary. Scholars of applied linguistics have recently begun to demonstrate an active interest in the function of listening comprehension in second

The importance of listening in language instruction cannot be overstated. Students must be prepared for future professions in a variety of workplaces and locations. Listening, according to Bress (2006), is the most often used of the four language abilities. The more students comprehend, the more confident they will be. As a result, they perform better and gain a better command of the language. Foreign language training, in general, and language learning in particular, rely heavily on students' ability to comprehend what they hear. There can be no successful language learning without adequate language input (Brown, 2001). Listening is a good way to get this kind of language input.

2.4 Importance of listening comprehension

Listening is an active process that requires full attention. It is one of the most important communication skills. For better or even efficient communication with others, excellent listening is essential. It is essential for learning a new language (Abbas, 2016). Listening is a complex interpretation process in which listeners match what they hear to what they already know (Rost, 2002, 2009). According to Jafari and Hashim (2015), listening is a conduit for understandable input, and more than half of the time spent learning foreign languages is spent listening.

Listening improves pupils' ability to communicate in real-life situations (Pham, 2017).

A critical component of communication is listening; thus, according to (Mulvania, 2019; Beqiri, 2017) listening is often overlooked since people are more concerned with what they want to say than what the other person is saying. Giving a space for other person to speak is crucial. Listening demonstrates respect for the other person's point of view and a willingness to listen. Communication may be accelerated, problems solved, understood, and confrontation avoided with good listening abilities (Barnarda, 2017). Overemphasizing the importance of listening in communication is a mistake (Wong, 2014). Imperfect listening can lead to a misunderstanding of messages. Because of the failure in communication, the sender may become angry and frustrated. Students that are good listeners will benefit from their education (Maverick, 2019).

When it comes to teaching tactics, listening is underappreciated. Listening skills, both practical and theoretical, should be given more emphasis, as well as courses that focus only on listening skills. The value of listening in language learning can hardly be emphasized (Brown, 1994). Students' ability to acquire a language can be improved by regularly engaging in the practice of "the most extensively utilized language skill" (Rost, 2000, p. 7). Yet, the importance of good listening skills in EFL classes has been undervalued historically (Flowerdew, 1994). This is partly due to teachers' tendency to place more emphasis on good speaking skills than on good listening skills. The ability to listen is more crucial for academic performance than the ability to read or aptitude for the subject matter.

2.5 Approaches to Listening instruction

Listening is regarded as one of the most important abilities for communication and language development. It facilitates and provides the foundation for the development of other language skills such as speaking, reading, and writing. Thus, enhancing students' listening abilities is strongly tied to presenting the aspects that contribute to the listening process (Helwa, 2017).

During the learning process, students have been exposed to listening to different levels. This is because different approaches and methods were used to teach. Today, it's important to be able to listen to

learn a new language correctly. Thus, teachers need to know how important it is to listen and give their students a lot of different ways to listen. Teachers should help their students improve their listening skills by giving them the support and guidance they need to learn a new language.

Indirect and direct learning strategies can be used to learn any language skill. There are two types: direct and indirect. According to Oxford (2006), direct strategies involve the new language right away, while indirect strategies help with language learning by focusing, planning, evaluating, looking for opportunities, controlling anxiety, increasing cooperation and empathy, and other ways, like these (pp. 37-135). These strategies are used in the classroom to give students chances to use language.

As a result, three approaches to teaching listening skills have emerged: top-down, bottom-up, and participatory models. Top-down processing provides listeners with the gist and primary concepts of the listening passage. Bottom-up processing involves listeners focusing on individual words and phrases and achieving knowledge by integrating the specifics to make up the overall information. As a result, listening is viewed as a combination of top-down and bottom-up processing (Al-Yami, 2008, Barani, 2011, Harmer, 2001, Kutlu and Aslanoglu, 2009, Kuo, 2009).

Research studies on teaching listening comprehension have focused significantly on the product of listening, the process of listening, L2 listening, bottom-up approaches to teaching listening, top-down approaches to teaching listening, and listening in multimedia contexts. "With the advent of new technology, it is now easier than ever before to gain access to high-quality educational resources (Goodwin-Jones, 2007; Tschirner, 2001).

2.6 Motivation in language learning

Motivation is important when learning a new language. Every teacher must have asked himself or herself this question: How can I get my students excited?. How to get a student excited about learning a new language is one of the hardest parts of being a teacher. The key is to figure out what motivates the students and then make the lesson relevant and fun. When people try to understand and explain motivation, they

have had a hard time because it is a complicated human concept (Anjomshoa and Sadighi, 2015; Seven, 2020).

With the increasing role of English as a foreign or second language globally today, motivation as one of the key important variables in learning the English language can be viewed as a 'device' utilized by English learners to learn English. Researchers have presented empirical evidence pointing to a focus on learner motivation as a useful tool for improving learners' language (Ali et al., 2017). Language learning motivation is a mental process, it is an active academic behavior for learning languages and maintaining continuity. Motivation is one of the most crucial factors in language learning. The learner will not be able to acquire language without a certain amount of drive (Banat, 2009, p. 312). Toaima (2010) stressed the importance of motivation in language learning for two main reasons; a) the more a learner is motivated to learn something, the more likely they are to succeed, b) many cases of failure are caused by a lack of motivation.

The definition of motivation has been described in a variety of ways, the most common being that it is an unquestionable reality of human experience. The majority believe that motivation is a hypothetical factor in the occurrence of actions. That is to say, motivation is a mental event that determines the course of action to be undertaken. Crookes and Schmidt (1991:121) defines motivation as "the choice people make about what experiences or goals they will approach or avoid, and the degree of effort they will exert in that regard."

Integrative and instrumental motivation, according to Gardner and Lambert (1972) are the two primary types of motivation. It is the extent to which a learner is prepared to adopt the culture of the target community that is referred to as integrative motivation. Instrumental motivation is used in situations where a learner's ability to communicate in the target language is required to accomplish a specific goal.

Positive attitudes toward the target language group and the possibility of integrating into that group, or at the very least an interest in meeting and integrating with members of the target language group, are indicators of negative motivation, according to the theory of motivation. The term "instrumental motivation" refers to more practical reasons for learning a language, such as obtaining a better job or promotion or passing a mandatory examination. A similar distinction is made between "intrinsic" and "extrinsic" motivation in general learning theory, with the former being more prevalent. The two types of motivation "do not

exclude one another: most learners are motivated by a combination of integrative and instrumental reasons" (Littlewood, 1984: 57).

Motivation plays a crucial role in enhancing students' learning. Anjomshoa & Sadighi (2015) argue that students' internal states drive their conduct. When lessons are planned with the needs of students in mind, and energizing environment is created. Instead, when rewarding kids, it's better to let their motivation drive their learning. It improves the relationship between students and teachers, makes feedback easier, and encourages students to take charge of their learning. Students are more likely to take ownership of their education when they are actively involved in the sessions. This fosters a sense of responsibility and self-determination in the students' educational experiences.

Therefore, motivation is critical in the acquisition of the English language and relying on effective teaching tactics, such as a virtual learning environment, which is critical for arousing motivation and drawing learners to learn the English language.

3. Method

The current study used a quasi-experimental pre-post one group design due to the minimal number of students at Hurghada Faculty of Education, South Valley University. The experimental group was taught to increase their listening comprehension skills and their impact on increasing their motivation to learn English using virtual language labs.

3.1 Participants

A group of thirty-five fourth-year EFL majors at Hurghada faculty of education, south valley university were chosen. Those students agreed to participate in the study. The participants were chosen because they need to involve in authentic listening activities, develop their English listening comprehension, and acquire positive motivations towards learning English and teaching it in the future.

3.2 Instruments

The researcher used the following instruments:

- **A listening comprehension test.**
- **A motivation Scale (Adopted from Eid, 2018)**
- **The virtual language lab-based program (VLLP)**

1. The listening comprehension test: The listening comprehension test aimed at assessing the participants' listening comprehension skills (Appendix A). To design the listening comprehension test, the researcher followed the following procedures:

- Designing a needs assessment questionnaire of the listening comprehension skills. It aims at specifying the listening comprehension sub-skills that are most needed by 4th year English Majors. Designing the questionnaire went through the following steps:

A. Reviewing the literature related to the field of listening comprehension skills.

- Designing a preliminary form of the questionnaire comprising 11 items referring to the different listening comprehension skills.
- The jury members endorse the face validity of the questionnaire, its suitability, and its necessity for the participants.
- After conducting data analysis, the final form of the questionnaire comprised 10 items referring to the different listening comprehension skills.

B. Designing the listening comprehension skills pre/post-test:

- It comprises 20 items representing the target listening skills.
- The test items are multiple-choice items and two completion items for assessing prediction.
- Instructions of the test are written in English, they are brief, easy to understand, and free from any possible ambiguities. They contain information about the purpose of the test, the time allowed to complete the test, and how to record the answers.
- The score is simply the total number of correctly marked answers. Two points are given for each test item, the total score of the test is 20 marks.

- Piloting the test: The test was applied to a group of students a month before the experiment to estimate the validity and the reliability of the test. A group of 30 fourth-year English majors was

selected (this is the number of the students of the English language specialization).

- **Content validity of the test:** The test was submitted to a jury of eleven qualified and experienced TEFL specialists. They were asked to judge the linguistic efficacy of the test items, appropriateness and fitness of the items for the participants, applicability for the participants, and how far the items measure the target listening comprehension skills. Suggestions and recommendations of jury members were taken into consideration and responded to. Two listening scripts have been changed as they were found to include difficult words and difficult sentences, the other two listening scripts seem to be too long. The jury members confirmed the suitability and applicability of the test.

- **Reliability of the Test:** The test was administered to Third-year English majors (N 30). Data was tabulated to calculate the reliability coefficient. The reliability coefficient of the test scores was determined by the test-retest method and was found to be .79 (Correlation is significant at 0.01). Aiken (1994) assured that the best reliability coefficient ranges from .70 and closer to .90. Thus, the reliability coefficient of this test is considered within the acceptable range.

  ▪ **Testing time:** Testing time is 40 minutes.
  ▪ **Test items analysis:**

a) Item Difficulty: Responses to individual items were analyzed to determine the item difficulty index of this test. The difficulty index ranged from .33 to .67. Hence, the difficulty index of the items of this test is acceptable. Gronlund (1981) argued that when items are correctly answered by at least 92% of the students, it is assumed to be excessively easy. Tests answered correctly by less than 30% of the group are considered to be too difficult and therefore they should be omitted as they do not contribute significantly to the measurement function of the test.

b) Item discrimination power: Item discrimination power was calculated to determine how well each item discriminates between high and low listeners. Results revealed that the items of the test have a discriminating power as they ranged between .42 and 0.71.

2- The motivation Scale (Adopted from Eid, 2018)

The pre/post-test motivation scale was used to assess participants' motivations towards the English language before and after the experiment to determine how far virtual language labs affect their motivations.

- Designing the motivation scale: The scale comprised 28 statements distributed in terms of cognitive, behavioral, and affective aspects of motivation. The scale was written in Arabic and adopted from a standardized version of the motivation scale towards learning EFL (Eid, 2018). The Arabic version was implemented to ensure clarity and convenience. There are both positive and negative statements on the scale, the latter were scored in a reversed way.

Instructions of the scale: The instructions of the scale were written in Arabic. They were brief, simple to understand. They contained information about the objective of the sale, the time allowed to complete the scale, and examples of how to record the answers.

Scoring the motivation scale: The students' motivations on the scale were scored as follows:
- For the positive items in group (a): always (4), frequently 3), sometimes (2), rarely (1).
- For the negative items in group (a): rarely (1), sometimes (2), frequently 3), always (4).
- For the positive items in group (b): (always (3), sometimes (2), rarely (1)
- For the negative items in group (b): rarely (1), sometimes (2), always (4).

Piloting the scale: Piloting the scale was conducted before the experiment using thirty students who were chosen from fourth-year English majors. The piloting aimed at deciding the scale duration, and ensuring psychometric properties.   In the light of the pilot study, the time allowed to implement the scale is 30 minutes which seems to be enough time.

- Reliability of the scale: To ensure the reliability of the scale, the test-retest method was used on randomly 30 fourth-year English majors. The results revealed that the reliability value is (r=.79[**]) which is significant at (0.01).

- Validity of the scale

- **Internal consistency:** Table 1 showed the results of the internal validity.

Table 1. Internal consistency coefficients

Item No.	coefficients	Item No.	coefficients	Item No.	coefficients
1	0.412**	10	0.285*	19	0.337**
2	0.194*	11	0.467**	20	0.360**
3	0.271*	12	0.363**	21	0.230
4	0.497**	13	0.333**	22	0.249*
5	0.393**	14	0.244*	23	0.263*
6	0.282*	15	0.309*	24	0.261*
7	0.424**	16	0.432**	25	0.338**
8	0.302*	17	0.310*	26	0.253*
9	0.281*	18	0.319**	27	0.280*
				28	0.361**

3. The virtual language lab-based program (VLLP)

- **Objective:** The VLLP aimed at enhancing fourth-year English majors' listening comprehension skills and increasing their motivation through:

1. Extracting specific information from listening selections.
1. Guessing the meaning of unfamiliar words from the listening context.
2. Making inferences.
3. Identifying the main idea in the spoken discourse.
4. Recognizing the speaker's motivations and opinions.
5. Identifying functions in conversations.
6. Recognizing lexical chunks and idioms.
7. Following details without being distracted.
8. Recognizing the gist of conversation in the target language.
9. Predicting outcomes from events.

- **The VLLP Components:** The virtual language lab-based program consisted of a virtual language lab based on *FluentU apps* for language lab (English language).

Having reviewed the relevant literature, the researcher was able to design the suggested program following four stages:

I) The analysis stage: At this stage, the researcher identified the listening skills that the fourth-year English majors lacked through reviewing literature and getting the recommendations of EFL professors

and lecturers specializing in EFL instruction. Also, the researcher stated the general and behavioral objectives of the VLLP through analyzing the students' needs. In addition, the learning environment has been assessed and analyzed by determining the content provided.

Also, topics and texts included in the program were selected from the English textbook. Finally, the researcher has decided the most appropriate teaching/learning activities and tasks according to the behavioral objectives, and the strategies selected in the E- program.

Ⅱ) **The VLLP design:** In the process of designing the VLLP, the researcher designed the framework, including general and behavioral objectives, content, methods of presentation, training techniques, activities, and evaluation techniques. Besides, the program framework was evaluated by a jury of TEFL specialists. Then, the content of the asynchronous lessons has been identified. Also, the virtual language lab from FluentU apps was constructed. The content and the general form of the whole VLLP was judged in terms of:

- Linguistic stating of the items.
- Appropriateness of the objectives to the subjects of the study.
- Academic verification of the content.
- Appropriateness of the activities and tasks to the objectives.

III) The development stage: The VLLP has undergone the following steps:

- Developing the VLLP units and lessons.
- Uploading the asynchronous lessons to the virtual lab.
- Installing and setting up the required content on the virtual lab.
- Uploading the whole VLLP on (Edmodo website).
- Upload the VLLP online.
- Uploading the zoom meeting with the students for synchronism.
- Piloting the VLLP to make the last modifications.

Description: The VLLP consists of two units divided according to its topics which were: a) meeting people, b) adventures, and stories.

- Each unit has five lessons and each lesson contains learning objectives, procedures, content & activities, extra activities, virtual lab audio texts and conversations, and scripts of the listening text.

- The VLLP in its final version includes 14 sessions in addition to 2 orientation sessions that aim to explain what is meant by virtual labs and the procedures of using them. To overcome the barriers of time and place, zoom online meeting has been used. These two sessions explained

the program elements and illustrated the meaning of the virtual lab and its specialized icons; its usage, and its expected positive effect on enhancing writing. Furthermore, during the orientation session, students learn how to use zoom for communication and presentations.

- The content of the VLLP included twelve scenarios which were presented and enhanced through virtual lab activities.

- The audio texts used in the virtual lab were reviewed accurately and judged by a jury of TEFL specialists to judge their suitability for the VLLP.

- In each lesson, students were exposed to listening to audio texts, then practicing controlled, guided, and free tasks to make sure of their full understanding of the virtual audio text.

- Paraphrasing, summarizing, and narrating are language techniques used in each lesson.

- Exercises were of completion, MCQ, and open-ended nature.

- **VLLP duration:** The VLLP includes three main themes and each theme contains four lessons. Each lesson took two hours.

- **VLLP assessment:** The assessment system employed in the course was composed of both formative and summative assessment techniques. The assessment is focused especially on listening comprehension skills, it includes both formative and summative assessment.

Implementing the Experiment

1. Pre-testing: Before introducing the VLLP, the assigned participants were pre-tested using the listening comprehension test.

1. Dealing with VLLP: After the pre-testing procedures, the researcher carried out the VLLP. The Overall duration of the experiment was 24 hours, divided into 12 lessons, one lesson a week. Each lesson lasted for two hours. The lesson started with a question to arouse students' interest and motivation. Then, a brief introduction to the new lesson took place through an open discussion between the instructor and the participants. The title of the new lesson is presented to elicit the participants' prior knowledge about the lesson through vocabulary meaning questions, linking this knowledge to the new lesson.

- Participants had to respond to the activities through:

a) Dividing themselves into pairs or groups each having a different role.

    b)   Performing the assigned activities.

    c)   Presenting their answers through an open discussion.

•   After responding to the activities, they were assigned to answer the formative assessment.

1. Post-testing: As a final step, participants were exposed to the listening comprehension posttest to measure the effect of the proposed VLLP. Differences between the means scores were tabulated for further statistical processes.

Results

The current study aims to investigate the impact of using virtual language labs on developing some listening skills and increasing their motivation. To validate the hypotheses of the study, a t-test was used to compare the pre-and post-performance of the experimental group of the fourth-year English majors, to stand on the degree of improvement in listening performance, and positive motivations towards learning English. Results were tackled in the light of the study hypotheses as follows:

1.   The First Hypothesis

The first hypothesis stated that: "there are statistically significant differences between the mean scores of the experimental group in the pre/posttests of the listening skills favoring the posttest." To validate the difference between mean scores of the study participants on the pre-posttest of listening comprehension in favor of the post-testing. Analysis of data obtained using t-test shows that the mean scores gained by the participants of the study group are higher on the post-testing of listening comprehension than those obtained in the pre-testing since the t-value is (22.48) which is significant at (0.01) level. Thus, the first hypothesis was accepted. Table 1. presents means, standard deviations, and t-test values obtained on the pre-posttesing of listening comprehension.

Table (2) Analysis of mean scores of participants in the pre-and post-testing of Listening Comprehension

Testing	Subjects	Means	SD	t-value	Sig.	η²	D
Pre	35	10.17	1.383	22.485	0.01	0.95	8.3
Post		16.47	1.683				High

Maximum Score=20

To assess the effectiveness of the virtual language labs on developing the listening comprehension performance of the study group, the Eta-Squared formula was used. As shown in table (1) Eta-Squared value is .95 which is highly significant. Nasser (2006) mentions that when Eta-Squared value (η^2) is less than 0.1, it denotes that the significance is weak, when (η^2) is more than 0.1and less than 0.6, it means that the significance is medium, and when (η^2) is more than 0.6, it means that the significance is high. Figure 1. shows the difference in the means of the student's scores on the listening comprehension test before and after the experiment.

2.   The Second Hypothesis

The second hypothesis stated that: "there are statistically significant differences between the mean scores of the experimental group in the pre/post motivation scale favoring the posttest". Table 4. shows t-test results of pre-posttesing of the students' motivations towards the English language.

Table 3. T-test results of the students on the pre-post motivation scale

variable	No.	Mean	SD	t-value	Significant	η^2	Blake's value
Pre	35	32.2000	6.31432	37.446	0.01	0.954	1.28
Post		80.6857	4.33706				

Table 4 shows that there is a statistically significant difference between the mean scores of the experimental group in the pre-posttesing motivation scale as the "t" value is 37.45 which is significant at 0.01 level. It is an indication of the improvement in students' positive motivations towards the English language. Therefore, the second hypothesis is accepted. Table 2 indicates that virtual language labs were effective in improving prospective teachers motivation as (η^2) ratio =.95 and the effect size (d) = 1.28.

Discussion

Language laboratories were effective in helping prospective teachers improve their listening skills. Language laboratories provided the play back facility of both audio and audio/ visual materials which allowed the prospective teachers to have real time experience when it came to listening to samples of English language. Without language laboratories, the teacher will be the only source of the language inside the classroom. The students are restricted to listen to the accent of the teacher. By the introduction of language laboratories, students now can listen to a variety of accents with which English is used in daily situations away from the language of the textbooks. Students will not only able to listen to the use of English, but also test their listening comprehension by practicing the assessment activities. Software applications offer exercises to the students to improve their listening comprehension skills. The software also provided audio description for any picture and learner follows the instruction like to underline any object or to write names under certain characters. These activities exposed learners to expended listening. The software applications also provided comprehensive testing systems to test the students listening skills. Without language laboratories, teaching listening would never have become so effective. Now students are able to develop their listening skills across various actions such as American and British accents. Moreover, virtual language labs can bring native voice easily to EFL context.

The present study aimed to enhance prospective teachers' listening skills and motivation through using a virtual language lab. Using E-language labs or virtual language labs provided prospective teachers opportunities to practice more listening activities. This helped them to develop and enhance their knowledge and practices of the target skills. Thus, improved performance might be due to the effect of using the proposed virtual learning strategy. These results concur with the study of Zeng (2015) which revealed that virtual environments improve students' listening skills which is important for effective communication. Also, Hassania et al. (2013) showed that an intelligent virtual environment for language learning, with embedded pedagogical agents, improved listening and speaking skills of non-native English language learners; 14% increase in the number of proper replies, 3% decrease in

grammatical errors, 16% decrease in pronunciation duration, and 11% increase in learners' proficiency level within three trials. In addition, Arteaga (2018) revealed the effect of virtual classrooms in developing listening skills as a way to enhance the learning of a foreign language by the use of the MOODLE platform of the university.

Additionally, in the pre/posttesing of motivation scale towards learning English, students' responses in the motivation scale showed unsatisfied and undesired to study English and the unimportant uses of English language in general. In addition, the researcher found from the scale's results that the study group's negative motivations towards the English language have been reduced as they were encouraged to perform the required tasks voluntarily. Improved positive attitudes and increased levels of motivation were manifested in English majors' intention to attend future similar sessions and webinars.

Moreover, students were provided with ample opportunities to practice their listening skills at their own pace as they were encouraged to repeat the audio resources more times. They practiced listening skills through various tasks; they were exposed to various audio resources for the same topic, listening to conversations graded from simple to native speakers' utterances. Students were encouraged to repeat the audio resources more times. Activities such as summarizing, paraphrasing, annotating, guessing, and inferring improved students' listening performance. Students were oriented on how to do the tasks and activities, to revise, and verify predictions based on prior knowledge or information in the listening process.

Recommendations

In the light of the results obtained in the present study, the following recommendations are suggested:

1. EFL prospective teachers should be trained on developing listening comprehension, speaking, reading comprehension, and writing skills using virtual language labs in order to reflect this training on their students afterwards.

2. Learners should be encouraged to use autonomous learning techniques, such as learning in virtual classrooms.

3. In-service training seminars can be developed and conducted for foreign language instructors depending on virtual language labs.

4. Since teachers play a highly significant role in helping learners acquire, get convinced of, and implement virtual learning environments, prospective teachers should be encouraged to integrate CLIL instruction with online and virtual learning environments.

5. Teachers should integrate virtual language environments into listening instruction..

Suggestions for future research

1.   Using virtual language labs while designing ESP courses to study their effect with different contexts.

2.   Searching the effect of using virtual language labs for developing listening skills of EFL young learners.

3.   Investigating the effect of virtual language labs on other language skills such as critical reading and writing skills.

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