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A Comparative Study on the Impact of Online and Offline Blended Teaching on Listening Performance

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Abstract

This study examined the comparative effects of online and offline blended teaching on EFL learners' listening comprehension. Based on quasi-experimental design, this study engaged an experimental (No=30) and control group (No=30), each receiving two different types of treatment. For the experimental group, the teacher taught English listening activities using a mixture of online and offline mode, while the for the control group the teacher offered face-to-face offline mode treatment of listening. Independent sample t-tests and paired samples tests results showed a significant positive effect of blended learning on the participants' listening skills such that the experimental group improved their listening comprehension more than the control group This is justified on the grounds that online learning with more accessibility, relatively low cost, time efficient, and suitably combined with offline learning can offer self-paced instruction for learners whereby they self-manage their learning and progress at their own convenience.

Keywords: blended teaching, blended learning, online and offline teaching, listening comprehension

1. Introduction

In today's digital age, nearly every aspect of life relies on the internet (Amichai-Hamburger & Hayat, 2011; Choshin & Ghaffari, 2017). Additionally, it has been noted that mobile English learning apps are being used more frequently in English classes, making the learning process more enjoyable and active for students, thereby enhancing their engagement (Anthony et al., 2019; Wong et al., 2020). According to Castle and McGuire (2010), Enayati and Pourhosein Gilakjani, 2020; Jamshidi Saleh and Pourhosein Gilakjani (2020), e-learning can improve the quality of learning experiences by offering flexible access to content and instruction anytime and anywhere, allowing students to achieve learning outcomes comparable to those of face-to-face instruction. Digital learning games, software, and platforms have gained popularity among teachers and learners. There is a lack of research at the high school level, creating a gap in the literature that limits the guidance available to practitioners who want to initiate and implement blended learning programs in their schools. Studying the perceptions of first-time instructors involved in blended learning at the secondary school level can provide insight and guidance to teachers who are moving from traditional instructional experiences to blended learning programs. This study aimed to contribute to the literature by studying specific cases of blended learning implementation experiences of high school instructors who are new to blended learning.

However, the experiences of English as a Foreign Language (EFL) students engaging with a blend of offline and online tasks have received less attention. During the COVID-19 pandemic, school closures on a national and global scale made online courses the standard for students, with various learning resources and information being delivered via the internet. Online education has emerged as an unstoppable global trend. Consequently, studying the experiences of EFL learners engaging in both online and offline blended tasks can enrich empirical data in this field. It can also enhance our understanding of the benefits and challenges of the blended mode, as well as the difficulties students face, their emotional changes, and shifts in their abilities during the process.

The existing body of literature provides valuable insights into the impact of technology, online, blended, and traditional instruction on various aspects of language learning and instruction. However, there remains a gap in the research concerning the effect of these modes of instruction on listening skills, especially within the context of Iranian intermediate EFL learners. To address this gap, this study aims to investigate the impact of online and offline blended teaching on listening skill among Iranian intermediate EFL learners.

1.1 Research Question

To realize the research objectives, the following research question was formulated:

Does online vs. offline blended teaching have any effect on Iranian Intermediate EFL learners' listening comprehension skill?

2. Literature Review

2.1 Defining Online and Offline Blended Teaching and Learning

Blended learning was first introduced in 1969 as a basic component of the learning system of principal distance teaching instruction of the world. The term "blended learning" emerged in the early 21st century, and it was first used to refer to "a course designed to allow workers to both continue in the workplace and study" (Sharma, 2010, p. 456). Graham et al. (2005) documented the three following definitions of blended learning: combining instructional modalities or delivery media, combining a variety of instructional methods, and combining online and face-to-face instruction. The problem with the first two definitions is that blended learning is defined so broadly that it encompasses virtually all learning systems. The third definition is characterized by the integration of instruction from two historically separate models of learning, namely, traditional face to- face learning and distributed online learning, emphasizing the central role of computer-based technology. The first appearance of the term in English language teaching (ELT) referred to any integration of face-to-face teaching with internet technology (Whittaker, 2013).

In the digital learning era, online and offline blended learning modes are defined as certain learning modes that combine contact teaching with teachers and selfcontained preparation with online resources (Hubackova & Semradova, 2016). Thus, the current study takes this as the working definition of online and offline blended English learning because it reveals the nature of the blended mode—that is, blended learning can enhance the quality of learning experiences, enables students to learn English more enjoyably and actively, facilitates the engagement of

students in English learning, and allows students to enjoy the flexibility of an online format without losing the personal interaction of face-to-face instruction (Anthony et al., 2019; Rahimzadeh & Gilakjani, 2022; Wong et al., 2020). Blended learning is a formal education program where the student learns partly online, with some control over the time, place, path, and/or pace of their learning, and partly in a supervised physical location away from home, where they receive content and instruction (Staker & Horn 2012; Varthis, 2016). Learners are encouraged to complete online learning tasks and digital game-based activities, during which process they can experience the joy of dealing with digital challenges, knowledge acquisition, and enhancement of learning outcomes.

2.2 Listening Skill

The importance of listening skills is highlighted by research that shows that listening can help students learn their second language faster (Azizinia, Sadeghoghli, & Mohebkhah, 2017; Jiang et al., 2021; Supriyadi et al., 2019). Listening effectively can also enable students to express their thoughts better. This is because students who listen acquire more knowledge to analyze and critique before they reply (Ahmadi, 2016; Amari & Gorjian, 2019; Sheylani Bakhsh & Pourhosein Gilakjani, 2021; Supriyadi et al., 2019). Students who improve their listening skills are more likely to feel confident, comfortable, and ready to succeed in school (Wolf et al., 2019). Students learn active listening skills, where they have to listen to details in audio and, at the same time, read and understand questions on paper and answer the questions based on the information from the audio with some support from the learners' background knowledge (Hassan et al., 2023).

Some researchers (Field, 2009; Taheri & Taki, 2017; Vandergrift & Goh, 2011) have pointed out that listening skill is often neglected. It has not received enough attention in the teaching of English as a foreign language (EFL). In EFL contexts, listening is the first exposure to the target language and the first step towards fully learning a second language. However, despite the importance of developing listening comprehension skills, teachers rarely teach listening skills to their learners (Taheri & Taki, 2017; Vandergrift Goh, 2011). Listening skill is the most challenging skill to learn among the four language skills. It is very important for learning a second language, as it helps learners to understand meaning and context in linguistics (Bunn, 2015). According to Goh (2000), most difficulties reported by learners were related to word recognition and attention failure, while relatively few difficulties were related to inefficient parsing and failure in utilization.

Hasan (2000) examined how Arabic EFL learners experienced their listening difficulties. Although many listening problems related to task, text, speaker, and listener factors were reported, most reported problems were about contextual factors, such as fast speaking speed and new vocabulary. Graham (2006) also found that the main listening problems reported by foreign language learners were related to the quick delivery of text leading to failure in identifying and recognizing words in a stream of input. Second language teachers need to know the different listening comprehension difficulties in order to help listeners use the right strategies. The traditional or factory-model classroom is preventing the teachers from creating a student-centered learning environment for 21st century learners.

2.3 Previous Studies

The internet has transformed how people teach and learn. E-learning is widely seen as one of the main outcomes of the internet expansion (Hajimaghsoodi & Saghaieh Bolghari, 2019). Yalçınkaya (2015) argues that using electronic educational technology enables tailoring learning programs and courses to the individual needs, preferences, and abilities of learners, which improves their performance and academic achievement. Online courses and learning programs have been challenged for their low social interaction and the absence of support benefits from conventional teaching methods and practices. This inconsistency has resulted in a blended learning approach that integrates both online and offline instruction (Güzer & Caner, 2014).

Different platforms have been used to teach listening in various studies. Azizan (2010) stated that traditional classroom learning was not effective and needed to be improved. Online learning replaced this old method and was developed from distance education. It was popular among public universities. However, online learning alone was not enough. It had to be mixed with other kinds of learning, such as face-to-face learning. This mix created a new method called blended learning. Blended learning is the careful combination of learning and teaching methods in both physical and virtual learning spaces, using the advantages of each space to improve the student experience. The goal of blended learning is to combine technology with learning. Mixing Internet technology and face-to-face interaction can enhance

pedagogy and easier access to information. In other words, blended teaching can support independent and collaborative learning experiences (Djuwita et al., 2022).

Studies by Milad (2017), Ebadi and Ghuchi (2018), Ahmed (2019), and Alrouji (2020) showed that using blended learning enhances students' motivation, reading, writing, vocabulary, and translation skills. Anggraini (2019) reported that blended learning had a significant positive effect on the students' achievement. Blending can make learning more efficient and effective, and studies show that pass rates improved. Alaneme et al. (2009) found that students liked a mix of both traditional and e-learning methods of teaching and said that blending made learning more effective.

The research findings of Anthony et al. (2019) revealed that the impact of blended learning on the effectiveness of learners was positively predicted by achievement, engagement, involvement, retention, and cognitive outcome. In another study, Dolores et al. (2019) explored how to transform traditional face-to-face learning into blended learning and ultimately develop the initiative in engagement of students through both in-class and online approaches, which was also time effective for teachers. Furthermore, Ige and Hlalele (2017) conducted a blended learning experiment in junior high schools in the Ondo region of Nigeria and found that blended learning could help create a student-centered lesson and that the learning effect was greatly improved.

Ma and Lee (2021) illustrated that blended learning outperformed mere online or offline learning in enhancing attention, confidence, and satisfaction perceptions of students. Wang (2021) also indicated that blended learning had an overall positive impact on the English conversation performance of students, and that students had a positive attitude toward the blended course. Yao (2019) found that a blended learning environment contributed to improving English acquisition of Chinese adult learners, especially their English writing abilities. Likewise, Zhou (2018) confirmed that the blended learning mode could significantly improve the English writing ability of students. Cui (2014) investigated the impact of a blended approach aimed at improving the listening and speaking skills of students. The results proved that it was effective not only in helping improve listening and speaking skills but also in enhancing learner autonomy.

Blended learning has been used with learners in EFL/English as a Second Language (ESL) settings in many studies. Rahimi and Behjat (2011) conducted longitudinal research on online and offline reading comprehension for Iranian EFL learners and concluded that students' reading is promoted to a higher degree when exposed to online texts that have links to other websites that have more reading content. Asadzadeh Maleki and Ahangari (2010) researched the role that computer-assisted instruction plays in writing and reading. The results of their study showed that most EFL learners had a positive attitude in using multimedia tools for the enhancement of their language skills, and enjoyed saving their writing and using multimedia to improve their reading skills. Rombot et al. (2021) conducted a study on the effect of blended instruction on the reading comprehension of EFL learners, demonstrating that blended instruction allowed students to review materials at their own pace, leading to improved reading comprehension. Wu and Hung (2022) investigated the effect of virtual instruction on the speaking ability, motivation, and learning autonomy of elementary EFL learners, finding improved speech accuracy but no significant changes in pronunciation, fluency, motivation, or autonomy.

Sharma and Barrett (2009) studied using technology in and beyond the language classroom and believed that using blended learning enables the students to enhance collaboratively their writing skills. Similar work is conducted in different language competencies (Isti'anah, 2018). The research also hires the students for pre- assessment and post-assessment. After a six-week-learning cycle, post-assessment is given. Although the language skills practiced are writing, the grammar skills of the students are also important for exercising the accuracy of the students in writing. It is noted that the writing of the students in the post-assessment is better than before. According to the students' reflection, the student often appreciates blended learning in teaching and learning writing skills.

In addition to that, Ibrahim and Yusoff (2013) indicates that the blended learning style used for the speaking course offered further opportunities for the students to exercise speaking outside of the classroom. It also enables the students to be encouraged, to develop and publish for real audiences. They also found that the use of a wiki in a blended learning atmosphere is beneficial for the Public Speaking course. Tawil (2018) Observes interaction in the classroom as essential for effective public speaking. Exclusively, the acceptance of online learning can avoid students from emergent special skills such as public speaking.

Some researchers have found that blended learning approach has many positive effects on improving listening skill. Jiang et al. (2021) explored the impact of blended learning using Quizlet software on Chinese EFL learners and reported improved listening skills and increased interest in language learning. Yang et al. (2013) examined the efficacy of integrating Communication Technology into individualized English listening instruction through the use of Moodle, a computer-generated learning atmosphere. The study results showed that students contributing to the treatment improved significantly in terms of English speaking and listening.

Guangying (2014) investigated a blended learning approach to see if it plays a positive role in improving the speaking and listening skills of college students. The findings are very clear after analyzing the language test scores in HUST. During the study, the experimental group showed much greater progress in both listening and speaking abilities based on their pre-tests. The results for the experimental group were much more evident compared with the control group. The blended approach to learning enhanced the academic performance of the students in listening skills of the language.

Banditvilai (2016) conducted a study focusing on the enhancement of students' language skills by using blended learning. The result of his study revealed that there are direct effects of blended learning on the listening skills of the language while he believes that blended learning allows the students to be autonomous learners and motivates them to enhance their listening skills. Similarly, Al Zumor et al. (2013) investigated the perceptions of the EFL students towards the use of blended learning and found out that blended learning can enhance the listening skill along with other skills of the English language. Their findings also suggest that the use of blended learning in terms of the effective application, some supportive learning opportunities are required to create a better environment of using blended learning for the enhancement of the English language teaching and learning.

There are contrasting evidences regarding the effect of blended learning on language development. For example, Chang, Shu, Liang, Tseng, and Hsu (2014) examined the impacts of blended e-learning on participants' performance. The participants were two classes of 11th graders in a vocational high school in Taiwan. They were randomly selected and assigned to two experimental groups that studied through blended e-learning or a control group that studied through traditional classroom learning. The results indicated that blended e-learning did not have a significant effect on students' achievement test scores, but it did significantly affect their self-assessment scores.

Yick et al. (2019) investigated the impact of blended learning on undergraduate students and compared the students' grades in a blended learning and in a traditional face-to-face classroom. The results did not show a significant difference in the actual grades of students who used blended learning modules compared to students in the control group. Similarly, Berga et al. (2021) conducted a study on blended learning versus face-to-face learning at an undergraduate university in Alberta, Canada. A total of 217 second-year undergraduate nursing students participated in this research. Data were collected and analyzed using descriptive and inferential statistics. According to the findings, there were no significant difference in self-efficacy scores between groups or in the pre-post surveys over time. The results also indicated that there is no significant difference in knowledge between the blended online and face-to-face groups.

The studies mentioned reveal that blended learning integrates online and offline environments, resources, strategies, and evaluations in a complex manner. These elements undeniably complement each other, aiding students in mastering essential knowledge and enhancing their language proficiency. However, certain deficiencies still need to be addressed. For instance, blended learning can increase teachers' workloads, and both teachers and students need to become proficient in information technology, despite often lacking adequate knowledge and experience with online software. Additionally, unstable online platforms can diminish teaching effectiveness.

There remains room for further exploration in this field for several reasons. Firstly, most previous studies (e.g., Garrison & Vaughan, 2008; Graham, 2006) have only addressed certain aspects of the blended mode, such as its definition, categories, framework, principles, guidelines, and its application across various subjects and diverse areas. The experiences of young learners engaged in blended practice within the technology-based Iranian EFL context have not yet been explored. Secondly, while some studies have shown that blended activities yield positive outcomes on student performance, it is still underexplored how these activities impact the English listening skills of EFL learners, how different student groups vary in their listening achievements, and what students experience in terms of learning attitude, interest, and strategy use during blended tasks.

Given the limited research on the complex experiences of students (Sharpe & Benfield, 2005) and the types of outcomes achieved through blended learning (Dowling et al., 2003; Lim & Morris, 2009), it is essential to do a study to explore the impact of blended tasks on the English listening comprehension of EFL students. This study should also focus on students' experiences, including any changes in their learning interest, attitude, and strategy use while completing listening tasks. The study is valuable due to the current educational needs arising from the global pandemic. It may offer potential insights for the design of teaching and learning in the post-pandemic era.

This study adopts a constructivist perspective, which views learning as an active process where learners build their own understanding and knowledge of the world through action and reflection (Williams & Burden, 1997). This aligns with the nature of instructional content designed for online and mobile learning. Our study focuses on describing participants' engagement experiences in online and offline blended practice and how they deconstruct and reconstruct their thoughts and practices within the context of blended learning.

3. Methodology

3.1 Study Design

The current research design was a quasi-experimental type with pretest-posttest, in which two groups (experimental and control group) were exposed to two different types of treatment since it was not possible exercise randomization.

3.2 Participants

The participants were the students in Shahed high school in Rasht, Iran. They were female with the age range of 16-17. All participants were intermediate foreign language learners of English, all of whom have been learning language in a classroom setting. At the beginning of the program, all students were required to take a pretest to know the student's level of understanding before the program was implemented and to measure the student's growth over time through comprehensive assessment. The participants are divided into two groups, each consisting of 30 (N=30) control and 30 (N=30) experimental students. In experimental group, the teacher received instruction to learn English listening activities through a combination of online and offline mode, while the other teacher continued to use a traditional face-to-face offline mode in the control group.

3.3 Instruments

This study used the following instruments to collect data that would reflect students' perceptions, practice, and achievements in doing blended tasks: pre and post-tests and an online English learning tool, namely, the Quizlet website platform.

3.3.1 Pre-test and Post-test

The researchers used the B1 listening (Learn English, British Council) as the pre and post-tests in the study to collect quantitative data to measure the students' listening performance. They chose this test because it had high authority, credibility, and reliability. This test was suitable for the practical needs of intermediate learners and matched their true English levels. This test was also used as a reliable and valid test for previous studies. This test had consistent scores across different times of testing, different versions of the test, or different scorers rating the test taker's responses. The listening test had two tasks: task 1: put the words in the correct group; task 2: Listen to the dialogue and answer the true and false questions. The total scores of the two tasks were used as pre and posttests.

3.3.2 Quizlet Learning Tool

Quizlet is a reliable software and website platform that encourages learners to study English through engaging games. Due to its popularity among young people, this study selected it for online listening tasks. Learners can play various fun games to learn language, solve learning problems, memorize vocabulary with word cards, and test their knowledge using Quizlet. Additionally, teachers can share micro-lectures in the online learning community, and students can access the Quizlet website to watch these lectures and take listening tests.

3.4 Data Collection

The Experimental Class (EC) teacher integrated both online and offline listening instruction during the intervention. She underwent blended training to become more proficient in using blended teaching methods instead of solely relying on face-to-face instruction. The researchers organized a 4-hour workshop that offered an overview of blended-support

teaching, presented empirical evidence from previous studies demonstrating its advantages over face-to-face teaching, shared teaching cases and examples of blended teaching, and encouraged the teacher to incorporate both types of teaching behaviors in her English listening instruction.

The intervention spanned 2 months and included 24 sessions. The teacher of the treatment class employed both online and offline methods for English listening instruction. Data collection occurred over one month and involved several stages. Initially, a pre-test of English listening proficiency was administered to both the EC and Control Class (CC). After the 2-month intervention with 24 sessions, a post-test was conducted. Students completed the tests within 30 minutes. The test scores were analyzed using Statistical Package for the Social Sciences (SPSS) 26.0 to compare the results between the EC and CC classes.

The researchers selected "Developing Tactics for Listening" from Oxford English as the teaching material for this study, as it closely resembled the textbooks used in most junior high schools in Iran. They consulted with teachers and students to identify the most engaging and informative aspects of the material for the blended task. Based on their suggestions and feedback, "The Adventures of Tom Sawyer" in Module 4, Unit 7, Year 9 was chosen as the case study for the intervention.

The researchers selected the story for the intervention due to its engaging plot and adventure content, which promotes qualities like honesty and courage in students, preparing them to assist others. During class hours, students completed Quizlet learning tasks as part of the blended listening teaching intervention. The Quizlet system tracked and assessed their performance. The teacher reviewed their online work and achievements, providing feedback. Throughout the intervention, the teacher employed the blended teaching mode for English listening, adhering to the principles and evaluation criteria of blended learning.

The teacher implemented the online teaching method as follows: First, a 5–10 minute micro-lecture was created, focusing on teaching objectives, key points, challenges, text analysis, and vocabulary usage. This micro-lecture was then shared on the Quizlet website, an online learning community. Students were required to log into Quizlet to complete the tasks and share their issues, study plans, questions, and comments in the online discussion forum. Finally, the teacher provided feedback on the students' listening results based on the recording system. The online system monitored the time students spent on each word and automatically created questions and explanations for those words.

The students utilized internet technology to customize their listening practice with strategies that matched their needs, enhancing their performance through tailored online listening exercises. Additionally, the teacher could systematically assess the students' current listening skills before conducting offline lessons, which would help identify their potential for improvement. The teacher implemented a seven-step process for the entire blended teaching task when planning offline classroom activities. Through various tasks and activities, the teacher assisted students in developing and internalizing listening skills and strategies. These tasks were designed based on the students' listening learning outcomes, which were evaluated using the Quizlet tool. The teacher consistently monitored the students' responses and provided timely, personalized guidance.

The researchers developed online revision tasks for after-class activities. Students were required to log into the Courseware App to complete assignments based on recordings, progressing from easy to difficult listening exercises. The online system then generated additional listening materials tailored to each student's performance based on their scores. Finally, students listened to daily news on the app and prepared group news reports for the next class. Meanwhile, the CC of 30 students used traditional offline face-to-face teaching methods, following the three-step pre, while, and post (PWP) approach.

3.5 Data Analysis

The researchers used SPSS 26.0 to analyze the data. To answer the research question about the effect of blended learning tasks on improving young learners' English listening comprehension, they did independent sample t-tests and paired samples tests using SPSS 26.0. The study mainly compared the pre-test and post-test listening scores between the EC and CC. The scores of the listening parts of the tests were analyzed, and the difference results between the EC and CC were obtained. To explore the main features of students' experience in doing blended learning tasks and to identify the factors that influenced the change of achievement, they calculated the correlations between the different parts of the pre-tests and post-tests. To find out the variables of different parts of the pre-tests and post-tests in the EC and C, they did Pearson correlation analysis in the current study.

4. Results

4.1 Results of the Solution Placement Test (SPT)

First, SPT was given to a group of EFL learners to determine their general English language proficiency level. The maximum possible score for the SPT was (60) points. Based on the SPT direction, sixty intermediate EFL learners were selected as the main sample for the present study. The results of the SPT are displayed in Table 1.

Table 1. Statistics for the results of the SPT

SPT		
N	**Valid**	**120**
	Missing	**0**
Mean		52.8833
Median		53.0000
Mode		50.00
Std. Deviation		3.51033
Variance		12.322
Skewness		.013
Std. Error of Skewness		.221
Kurtosis		-.969
Std. Error of Kurtosis		.438
Range		13.00
Minimum		47.00
Maximum		60.00
Sum		6346.00

Measures of central tendency comprising the mean (52.88), the median (53), the mode (50), and measures of dispersion particularly the range (13), the variance (12.32), and the standard deviation (3.51) together with measures of distribution such as Skewness (.013) and Kurtosis (-.969) were displayed for the SPT test. Based on the SPT direction, those who scored 31+ in grammar and vocabulary, 8+ in reading, and 8+ in writing section were chosen as the main sample. After selecting the main sample, the reliability of the listening tests was examined.

4.2 Reliability Estimation of the Listening Tests (Pilot study)

In the next step, the reliability of the listening tests was estimated using Cronbach's Alpha to see how consistent the scores were on the items within the listening tests. Table 2 shows Cronbach's Alpha values for the listening comprehension tests.

Table 2. Results of the reliability analysis

Instruments	**Cronbach's Alpha**	**N of sample**
pretest	.89	25
post-test	.85	25

George and Mallery's (2003) guideline were used to interpret the results of the reliability analyses. According to this rule, values of "α > .9 are Excellent, α > .8 are Good, α > .7 are Acceptable, α > .6 are Questionable, α > .5 are Poor, and α < .5 are considered Unacceptable" (p. 231). Therefore, the estimated values of the reliability for the pretest and the post-test were both "good" values suggesting that the two tests met the criteria of internal consistency.

4.3 Examining Normality Assumption

Before running the parametric statistical tests; namely, paired and independent samples t- test, to examine the normality assumption, Skeweness analysis was done by dividing the statistic of Skewness by the standard error. Trimmed means were also computed to check out the normality assumption. The results of the Skewness analyses and trimmed means are given in Table 3.

Table 3. Results of the skewness analyses and trimmed means

Experimental				**Control**	
		pretest	**posttest**	**pretest**	**posttest**
Mean		13.46	15.66	13.43	13.63
95% Confidence Interval for Mean	Lower Bound	12.88	15.02	12.89	13.07
	Upper Bound	14.05	16.30	13.96	14.19
5% Trimmed Mean		13.53	15.68	13.48	13.68
Median		14.00	16.00	13.50	14.00
Variance		2.46	2.92	2.04	2.24
Std. Deviation		1.56	1.70	1.43	1.49
Minimum		9.00	12.00	10.00	10.00
Maximum		16.00	19.00	16.00	16.00
Range		7.00	7.00	6.00	6.00
Skewness		-.736	-.416	-.538	-.375
Kurtosis		.903	-.330	.782	-.175

The values of the skewness and kurtosis were within the range of +2 implying that the data met the normality assumption as suggested by Tabachnick and Fidell (2013). In addition, 50% of the trimmed means were within the range of lower bound and upper bound 95% confidence interval for the mean. The results of the Shapiro-Wilk test also confirmed the normality assumption (Table 4).

Table 4. Shapiro-Wilks test of normality

	Groups	**Shapiro-Wilk**		
		Statistic	**df**	**Sig.**
pretest	Experimental	.936	30	.073
	Control	.926	30	.038
posttest	Experimental	.938	30	.081
	Control	.947	30	.144

According to Tabachnick and Fidell (2007), the conventional alpha levels of (α=.01and α=.001) are commonly used to interpret the normality assumption. Given the sig. values in Table 4 and considering the alpha level at .01, the results demonstrated that the data had a normal spread for the pretest and the posttest of both groups (p≥.01). The actual shapes of the distributions for the two groups were also displayed and supported the normal probability plots (labeled Normal Q-Q Plot). See the Figures 1 to 4.

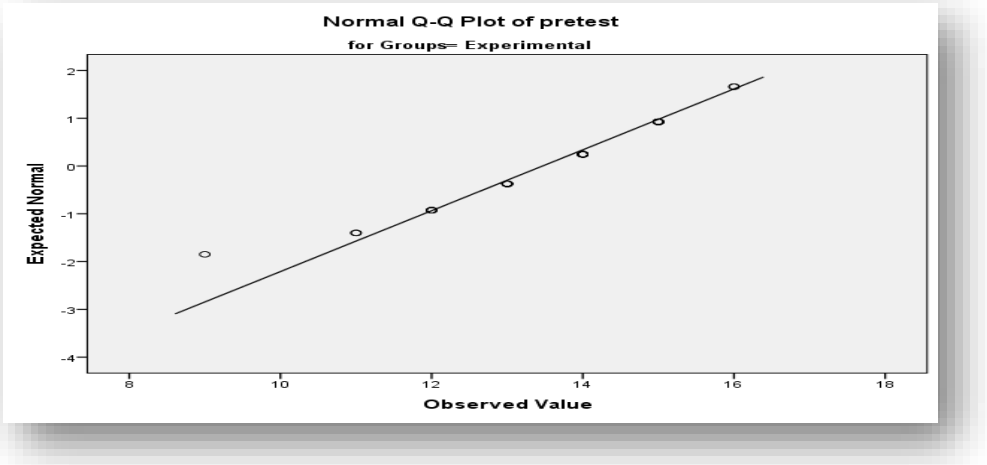

Fig. 1 Normal Q-Q plot for the pretest scores of the experimental group

The Quantile-Quantile or Q-Q plot checked the validity of the distributional assumption for the pretest scores of the listening. Since the larger part of the scores pursued the assumed distribution, and the points on the Q-Q plot fell nearly on the straight line, the data were uniform and the experimental group's performance on thepretest was uniform.

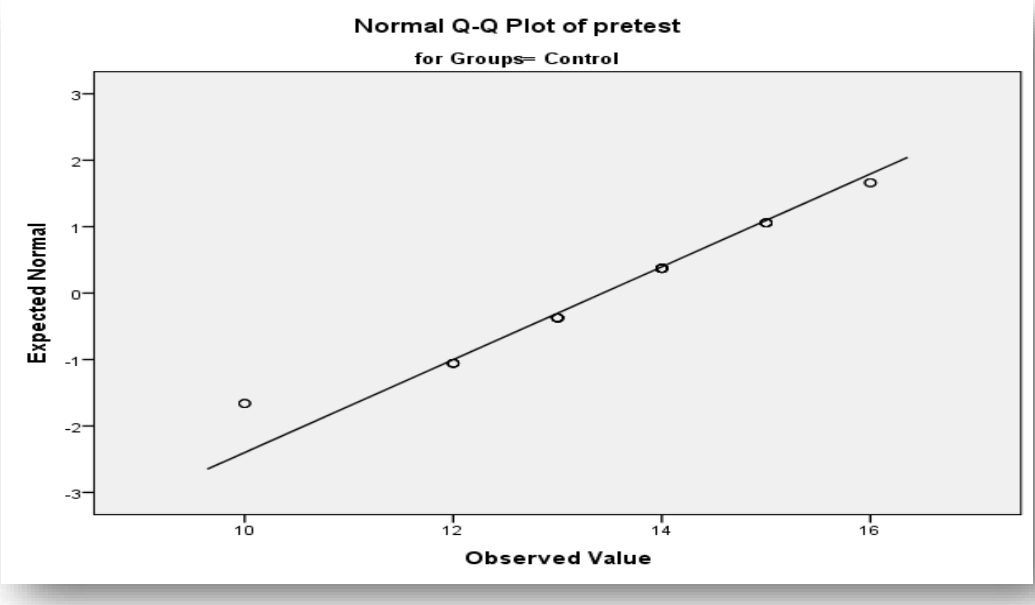

Fig. 2 Normal Q-Q plot for the pretest scores of the control group

As it was shown in Figure 2, the Q-Q plot was linear resulting that the data being uniformfor the pretest scores of the control group and their performance on the posttest was not highly varying, too. However, there were some points in the Q-Q plot that departed slightlyfrom the straight line.

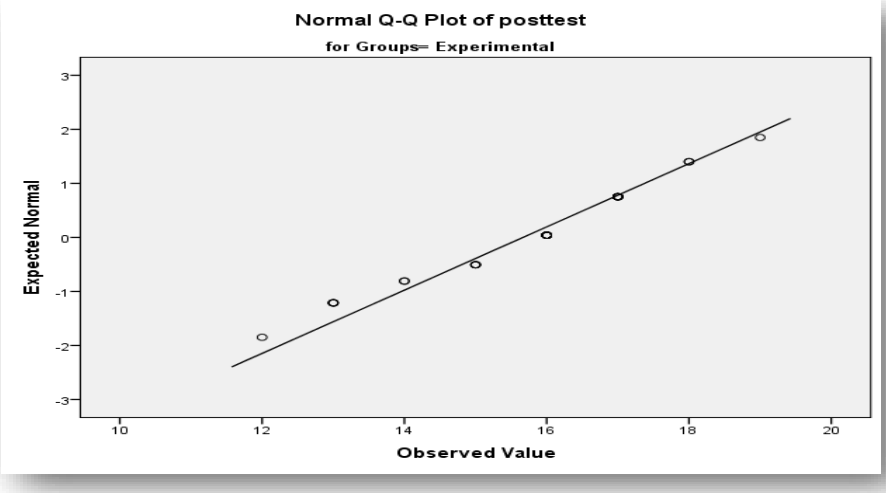

Fig. 3 Normal Q-Q plot for the posttest scores of the experimental group

In a similar manner to the pretest scores, the Y-axis plotted the actual values for thelistening scores for the posttest. The X-axis plotted the predicted values. Similarly, since the larger part of the scores pursued the assumed distribution, and the points on the Q-Q plot fell nearly on the straight line, the data were uniform for the posttest scores of the experimental group and their performance on the listening test was uniform.

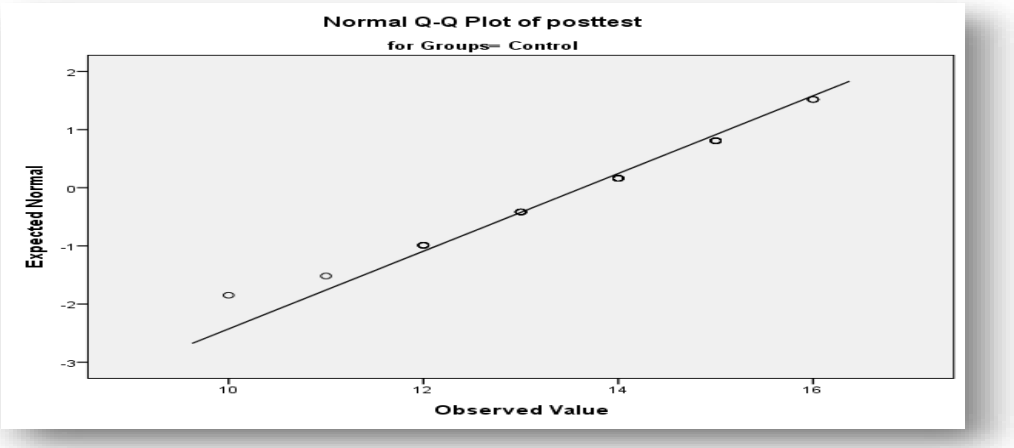

Fig. 4 Normal Q-Q plot for the posttest scores of the control group

As it was shown in Figure 4, the Q-Q plot was linear indicating that the data wereuniform for the listening test scores of the control group on the posttest, too.

4.4 Results of the Descriptive Statistics for the Listening Test Scores

After assigning the participants of the study into two groups, they were given a listeningtest to examine the possible initial differences between the two groups regarding their listening before introducing the specific treatment on online and offline blended instruction to the experimental group. Table 5 shows the results of the descriptive statistics.

Table 5. Group statistics for the results of listening tests

	Groups	**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**
pretest	Experimental	30	13.4667	1.56983	.28661
	Control	30	13.4333	1.43078	.26122
posttest	Experimental	30	15.6667	1.70867	.31196
	Control	30	13.6333	1.49674	.27327

For the listening test that was administered at the beginning of the study, the mean (M) scores for the experimental and the control groups were (M experimental= 13.46) and (M control= 13.43), respectively. The mean of the control group was simply .03 points lower than the mean of the experimental group. Besides, the standard deviation (SD) for the control group was slightly smaller than that of the experimental group (SD experimental = 1.56, SD control = 1.43). Figure 5 shows the comparison between the means of the two groups on the pretest of listening.

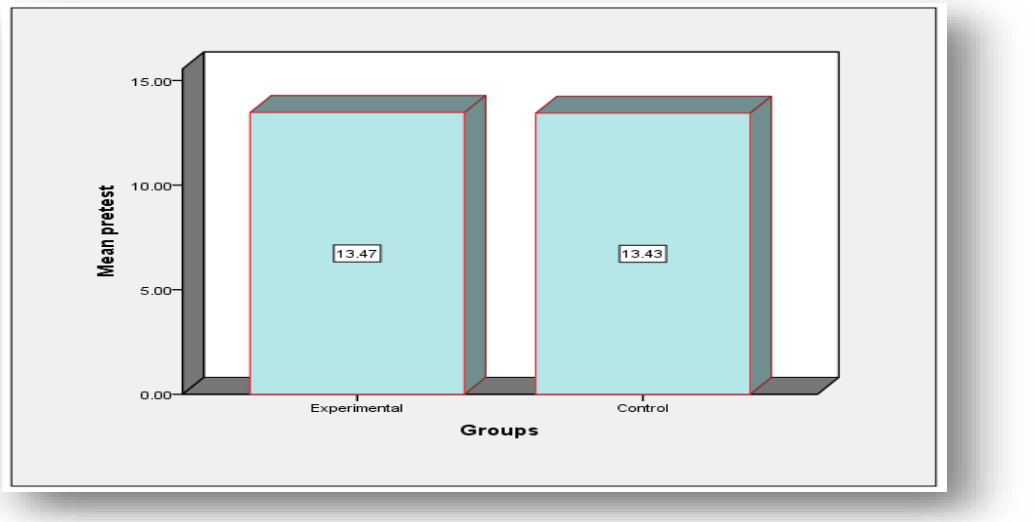

Fig. 5 Comparison between the means of the groups on the pretest of listening

As shown in Table 5, for the second administration of the listening test, the mean score of the experimental group ($M_{experimental}$= 15.66) was 2.03 points higher than that of the control group ($M_{control}$ = 13.63). The degree of dispersion of the scores for the experimental group was higher than that of the control group ($SD_{experimental}$ = 1.70; $SD_{control}$ = 1.49). Figure 6 shows the comparison between the means of the two groups on the listening test at the end of the study.

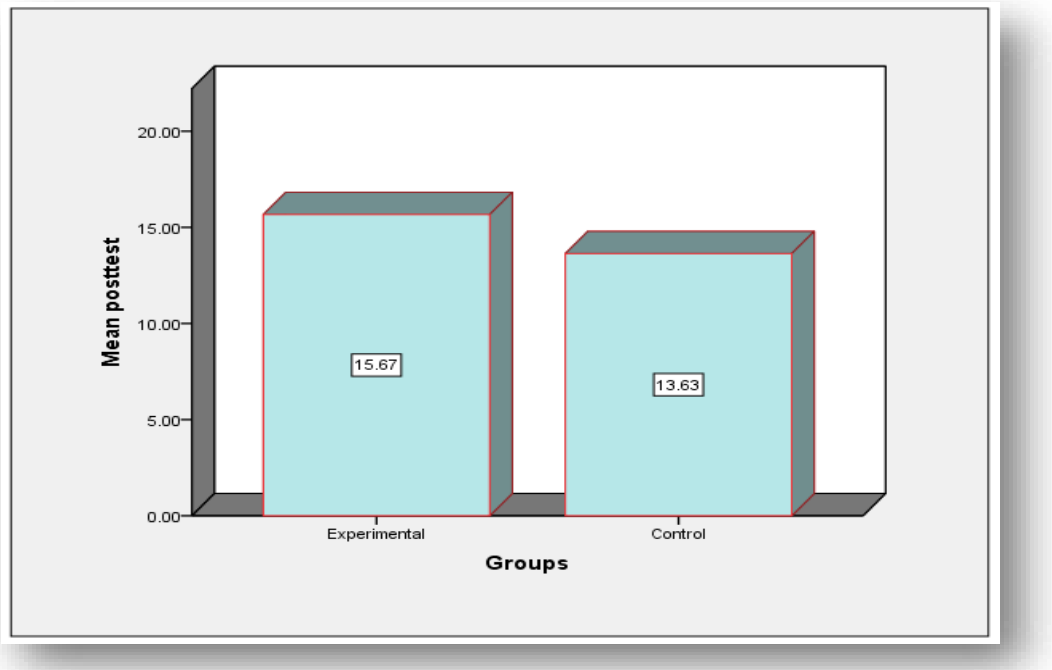

Fig. 6 Comparison between the means of the groups on the posttest of listening

As it was shown in Figure 6, the participants of the experimental group performed better than their counterparts in the control group on the posttest of listening comprehension. Inferential statistics were performed to examine the mean differences between the two groups.

4.5 Results of the Inferential Statistics for the Listening Test Scores

In order to examine if the mean differences between the two groups were statistically significant, independent samples t-tests were run. The results are indicated in Table 6.

Table 6. Independent samples T-tests for the pretest and the posttest of listening

		Levene's Test for Equality of Variances		**t**	**df**	**Sig. (2-tailed)**	**Mean Difference**	**95% Confidence Interval of the Difference**	
		F	**Sig.**					**Lower**	**Upper**
pretest	Equal variances not assumed	.32	.569	.08	58	.932	.033	-.74	.80
	Equal variances not assumed			.08	57.50	.932	.033	-.74	.80
posttest	Equal variances assumed	.340	.562	4.90	58	.000	2.033	1.20	2.86
	Equal variances not assumed			4.90	57.01	.000	2.033	1.20	2.86

The independent samples t-test procedure presented two tests of the difference between the control and the experimental groups. As concerns the pretest scores, the Levene statistic tested the homogeneity of the variances and it was found that the significance value of the Levene statistic was (sig pretest= .569). Since this value was higher than (.05), it could be assumed that the two groups had equal variances in the pretest and thus, the first row was used for interpreting the results. Based on Table 6, there was no statistically significant difference between the mean scores of the two groups in the pretest of listening t (58) = .08, p= .932, two-tailed). The degree of the differences in the means (mean difference= .033, 95% CI: -.74 to .80) was very small (eta squared= .0110). This meant that the two groups were almost the same in terms of their listening skill at the beginning of the study.

As regards the posttest scores, the results of the Levene statistic showed that the significance value of the statistic was (sig posttest=.562) that was higher than (.05). Therefore, it could be assumed that the assumption of homogeneity of the variances had not been violated for the posttest scores, too and consequently the findings of the first row were used for the posttest. This time the results revealed that online and offline blended instruction affected the listening performance of the two groups differently t (58) = 4.90, p = .00, two-tailed). In fact, learners' performance in the experimental group far outweighed that of the control group in the posttest oflistening. The

degree of the differences in the means was (mean difference= 2.033; 95% CI: 1.20 to 2.86; eta squared= .2627). This was considered small effect size using Cohen's (1988) criteria of r>. 1=small effect, r> . 3=medium effect, r >.5=large effect.

The effect size of .2627 meant that online and offline-blended instruction could explain 26.27% of the variance in the listening test scores. In other words, 26.27% of the changes in the posttest scores were related to the effects of the specific instructionthat was given to the experimental group. In the next step, in order to investigate if the differences between the pretest and the posttest scores of listening within groups were statistically significant, paired samplest-tests were also run to the results of the pretest and the posttest of listening for the two groups. The results are shown in Table 7.

Table 7. Paired samples statistics for the pretest and the posttest of listening

Groups			**Mean**	**N**	**Std. Deviation**	**Std. Error Mean**
Experimental	Pair 1	pretest	13.4667	30	1.56983	.28661
		posttest	15.6667	30	1.70867	.31196
Control	Pair 1	pretest	13.4333	30	1.43078	.26122
		posttest	13.6333	30	1.49674	.27327

As it was shown in Table 7, the two groups had progressed in their listening comprehension performance at the end of the study. The mean of the experimental group improved from ($M_{experimental\ pretest}$ = 13.46) in the pretest to ($M_{experimental\ posttest}$=15.66) in the posttest. The mean of the control group improved from ($M_{control\ pretest}$=13.43) in the pretest to the ($M_{control\ posttest}$ = 13.63) in the posttest of listening. In fact, the mean difference between the pretest and the posttest for the control group was simply (.20) points. In contrast, the mean difference between the pretest and the posttest for the experimental group amounted to (2.20) points. The results of the analyses suggested that the progress within the groups for the experimental group was higher than that of the control group. Paired samples t-test was run to examine if the mean differences within groups were statistically significant. The results are revealed in Table 8.

Table 8. Paired samples T- test for the pretest and the posttest of listening

		Mean	**Std. Deviation**	**95% Confidence Interval of the Difference**		**t**	**df**	**Sig.(2-tailed)**
				Lower	**Upper**			
Experimental	pretest - posttest	-2.20	1.03	-2.58	-1.81	-11.69	29	.000
Control	pretest - posttest	-.20	.61	-.42	.02	-1.79	29	.083

Based on the results of the paired samples t-test, this improvement was statisticallysignificant simply for the experimental group (P≤.05). In contrast, the slight improvement observed for the control group was not statistically significant (P≥05). In other words, the experimental group made a statistically higher progress as compared to the control group in the posttest of listening.

4.6 Addressing the Research Question

The research question was about the effect of online and offline blended instruction on Iranian intermediate EFL learners' listening comprehension. To answer this question, the researchers compared the posttest scores of listening for the two groups using an independent samples t-test. The researchers wanted to compare the listening comprehension of the experimental and the control groups after giving the specific treatment to the experimental group and the placebo to the control group. They used an independent samples t-test to analyze the posttest scores of listening for the two groups. The posttest scores of listening for the two groups were compared using an independent samples t-test and a paired samples t-test. The results, shown in Tables 6 and 8, indicated that there was a significant difference between the two groups in their posttest. The t-test results showed that the experimental group had a better performance than the control group in the listening posttest. The difference was statistically significant. The experimental group improved their listening performance by using the online and offline blended instruction. This showed that this method was effective for Iranian intermediate EFL learners. The null hypothesis was not supported by the results. In other words, the listening comprehension of Iranian intermediate EFL learners was significantly improved by the online and offline blended instruction.

5. Discussion

This study investigated how online and offline blended learning modes affected Iranian intermediate EFL learners' ability to comprehend listening. It used online language learning materials and offline English learning activities to create a blended learning environment for improving learners' listening comprehension skill. The study measured the learners' listening comprehension before and after the blended instruction. The statistical analyses revealed that the blended learning mode enhanced the learners' listening comprehension. The findings showed significant enhancements in listening comprehension, aligning with previous research by Mahmoudi Dehaki (2017). The emphasis on pure online instruction highlights the potential of virtual environments in fostering listening skills development. Jiang et al. (2021) added to this discussion by investigating the impact of online and blended learning using Quizlet software on Chinese EFL learners. Their mixed-method study not only confirmed the advantages of blended instruction but also noted a shift in attitudes and interests from negativity toward language learning to a positive outlook. This suggests that technology-enhanced instruction can positively influence learner motivation and engagement, contributing to improved listening skills.

The study showed that the group that received online and offline blended instruction improved their listening comprehension more than the group that did not. This finding agrees with some previous research, which reported that blended learning had a positive impact on EFL learners' listening skills. The finding is consistent with the results of Banditvila (2016), González-Gómez et al. (2016), Lalima and Lata Dangwal (2017), Potter (2015), and Guangying (2014). Therefore, unlike the results of Adams et al. (2015) and Powers et al. (2016) who found that blended learning hindered learners' language learning, the finding supports the effectiveness of blended instruction in enhancing learners' language abilities. In general, these findings also match the findings of Ahn (2017) and Chen (2020) who reported that the blended training method was beneficial in improving language learners' language skills especially in listening.

The results also show that the online learning tool, Quizlet, can help learners improve their listening comprehension skill when it is combined with offline instruction for Iranian intermediate EFL learners. There are many possible reasons for this improvement, which are explained below: The improvement in listening comprehension may be due to some of the main characteristics of blended learning. First, the researchers mixed different modes and methods of delivering the materials. Also, the learners gained from both online and face-to-face instruction. They combined the advantages of traditional classroom learning activities and online instruction and created an effective teaching approach. Blended learning offers opportunities for high interaction between the teacher and the learners (Lalima & Dangwal, 2107). This flexible learning mode created a friendly and active environment, increased the quality of the learners' learning experiences, and provided enjoyable opportunities for them to communicate with the teachers and also have access to many online resources to choose from. The learners could easily access the listening materials given by the teacher and could use the web-based teaching materials. Therefore, they were actively involved in the learning process while interacting with the teacher to complete online learning tasks which improved their learning outcomes. This is related to the constructivists' perspective which views learning as an interactive and active process.

The improvement in listening comprehension was also due to the ability of blended learning to create good learning experiences for the learners in terms of being focused, confident, and self-directed learners who could plan the learning process and manage their own learning successfully. Ahn (2017) states that blended learning trains independent learners as they can use the learning resources outside of school hours, too. Moreover, the training method increased their learning interest in listening comprehension and motivated them to participate in class activities. This educational approach also created a learner-centered class that reflected the basic idea of constructivist learning in which learners actively built knowledge. They showed interest in using different kinds of strategies in doing listening tasks and received teachers' support in doing the exercises collaboratively. The learners in the treatment group also had a group discussion in the online setting, which improved their teamwork skill. In addition, with the help of the learning resources available in online mode, the learners positively changed their learning habits by pre-learning before the offline class started. They read the learning materials before the class so that during the offline mode, they connected their knowledge to something they already knew and could have lots of repetition which positively affected their learning.

The teacher's increased workload in blended learning was another challenge. The teacher had to deal with some difficulties such as engaging learners, and keeping connected with students. However, the current educational approach had advantages for the teacher in terms of saving time as the teacher tried to encourage learners to self-regulate during the learning process and used appropriate time limits. The details of the listening tasks were given to the learners and they were asked to follow the requirements set by the teacher. The suitable design of this blended learning approach was another influential feature that created a pleasant and convenient learning environment for the learners under the guidance and supervision of the teacher. The listening materials were at the learners' language level, so the learners had a higher level of interest in doing the listening tasks. The learners' positive emotional traits enhanced their learning. The online and offline learning activities were organized in a way that controlled and reduced the unnecessary workload on the learners.

This method also combined the advantages of both traditional classroom teaching and electronic teaching in a way that the teacher could receive learners' feedback in the online mode and became aware of the learners' learning challenges so that she could solve the problems in the offline mode. In other words, the learners were given personalized support during the online learning and there was a logical transition from the offline mode to the online learning mode which greatly improved the effectiveness of the teaching approach. The above-mentioned characteristics of blended learning supported each other and helped learners to enhance their listening comprehension efficiently. Providing the learners with the suitable training methods can be considered a good solution for the limitations of current teaching conditions. In sum, the blended learning mode is an answer to the question of how to create an interesting educational program successfully. This innovative training approach is actually the optimization of teaching.

6. Conclusion

This study tested the effects of online and offline integrated instruction on EFL learners' listening comprehension by conducting an experimental intervention. The results of the study revealed that the participants in the experimental group who received the online and offline blended instruction improved their listening comprehension more than the control group after the intervention. In other words, the blended instruction led to better English language skills. The results suggested that the complex experience created in the blended learning mode was suitable for the Iranian intermediate EFL learners for enhancing their language ability in the area of listening skill. The learners practiced how to grasp the key points. They also developed their summarizing skills which required them to understand the main idea when they listened to a task. This helped them expand their foreign language vocabulary. They were also given options to choose their preferred listening task to practice. In other words, blended learning offered self-paced instruction in which the learners self-managed their learning and progressed at their own convenience.

Blended learning is a training method that combines classroom instruction with online learning to make the training more effective. In this study, this training approach helped to create contact among the learners without any pressure for interaction and let them practice listening exercises in an online learning environment. The main advantages of online learning such as easy access, relatively low cost, and time efficiency created a feasible teaching environment for the teacher to monitor and support learners' progress in and outside the classroom regarding the improvement of

their listening comprehension. The positive features of online and offline education were appropriately mixed so that positive outcomes in terms of enhancing learners' listening skill were expected.

The study showed that blended learning mode was useful and feasible in creating opportunities for language learners to succeed in listening comprehension. Since blended learning-based instruction is becoming widely used in the educational context around the world, education has been moving toward a blended model, future long-term research with repeated observations are recommended to be done to show the positive effects of the online and offline blended mode on language learners' achievements. In general, blended learning can be considered a solution to the problems of time limits and the limited number of sessions in face-to-face classes by using different information delivery methods.

6.1 Implications of the Study

These results have practical implications for English teaching and learning activity design for intermediate EFL learners. As technology is the main part of the learning experience in blended learning, learners need to have enough knowledge about technology to be active in blended learning. Therefore, curriculum designers should consider teaching hours for the instruction on information technology from the start of education for language learners in the design of the educational planning. Stakeholders also need to help learners keep positive attitudes toward online learning. Learners need help in developing their self-reliance for learning and support in terms of using effective regulation strategies for managing their emotions to cope with the possible challenges they might face during blended learning. Instructors also need more training to implement blended instruction successfully. They need to change their role from the traditional controlling role to that of a coordinator who trusts in learners' academic skills and ability for learning. Teachers need to address the different language needs of the learners online and offline modes and provide them with scaffolding in different forms to help them in achieving listening success.

This means that teachers need to be more responsible. They need to make sure that they use technology and innovative training methods as a priority. Therefore, teacher education programs and in-service training courses should consider the training programs that the instructors need for the effective implementation of blended learning. Teachers also need to be ready for designing suitable listening tasks that match the learners' language needs to use them in offline and online practices. They may include game-based listening activities to optimize the effectiveness of blended mode. The variety and difficulty level of the listening tasks and suitability in terms of the quantity and consideration of learners' language ability are important factors that teachers need to pay attention to as these factors can stimulate learners' emotions and create enjoyable experiences for the learners while reducing negative emotions in blended mode. Moreover, material developers should rethink the content of the textbooks and teaching materials to make them more innovative and feasible for implementing learning activities through multimedia instead of the traditional methods.

6.2 Limitations of the Study

The study showed significant results, but it has some limitations. First, the research findings are limited due to the sample size and research design. Because of the time and participants constraints, only sixty female participants joined the study. The reliability and validity of the findings could be better if larger samples were used. Second, the study only focused on intermediate EFL learners. If it included learners with different language levels, the findings could be generalizable to larger populations. Moreover, developing a blended teaching method that balances offline and online modes is a very important factor in the success of a blended program. Therefore, the pattern of the current blended learning instruction needs improvements in terms of the proportion of online and offline teaching modes.

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