

# The Effectiveness of Using Asynchronous E- Language Learning by High School Learners in Dohuk City

**Awaz Mustafa Ismael**

Ass. Lecturer in Basic Education Department, Duhok University, Kurdistan Region- Iraq  
Email: awaz.ismael@uod.ac

**Sherzad Sabri Ali**

Ass. Lecturer in Basic Education Department, Duhok University, Kurdistan Region- Iraq  
Email: sherzad.ali@uod.ac

## ABSTRACT

Coronavirus, or COVID-19, is classified as a deadly pandemic that has paralyzed every aspect of life all over the world including education (COVID-19 Coronavirus Pandemic, 2020; Sun et al., 2020). The spread of this virus has pushed the world into quarantine and to the implement of emergency lockdown plans to limit the virus' spread. Most countries have been asked to stay at home to save their lives (UNESCO, 2020). With the advent of Covid-19, the luxury of making the choice was abolished. It has caused educational institutions around the world to close their doors and apply social distancing strategies such as moving their teaching and learning processes into the online space. COVID-19 has affected education systems severely. This deadly pandemic has challenged universities to provide students with online teaching and learning settings. During the Covid-19 period, e-learning became a temporary shift of instructional delivery to an alternate delivery mode due to the crisis situation (Hodges et al., 2020). As Murphy (2020) stated schools also have been threats to securitization at the time of the pandemic and needed to be closed to provide safety of students by creating social distance and preventing social interactions among people in which recommended by the World Health Organization (WHO, 2020). Daniel (2020) indicated that education, which has grown up considerably at all levels for 50 years, has its greatest challenge so far. Thus, %90 of students could not attend their schools in the world and it has been estimated that there are 1,5 billion learners affected by school and university closures (UNESCO, 2020). The responses to the COVID-19 pandemic threat by schools around the world have varied, from total study cessation to a switch to online/distance learning. Like many governments, The Iraqi Kurdistan Regional Government also ordered to cancel face to face instruction and determined to convert to the system into an online or distance education one.

**Keywords:** Asynchronous education, distant (online) learning, COVID-19; social distancing, technology-enhanced learning emergency, education, school, crisis education, foreign language learning.

## Introduction

E-learning has been evolving for decades and the adoption of e-learning has been increasing over time. Until recently educational institutes have been comparing the costs with its benefits on determining to wholly embracing it. E-learning was no longer a choice made by the educational institute nor the student, but by an unforeseen situation. Suspending face-to-face classes was elongated in many countries, leaving e-learning as the only option (Abduh, 2021). At present, online learning resources have become a focus of vital discussion in education and research literature. Heads in various educational institutes are giving great attention on online education as an important source of teaching (Young, 2011). Online resources are now being considered as a means for improving instruction, establishing flexibility in learners' reach to instruction, and reducing the costs of instruction (Taplin, Kerr, & Brown, 2013).

E-learning is defined as the delivery of education through various electronic media (Liao & Lu, 2008; Koohang & Harman, 2005). Educational institutions were forced to upgrade their technological means and shift to online education. In delivering courses electronically, educators based their teaching methods on experiential and experimental procedures, whilst asynchronous e-learning was embraced. (Cleveland-Innes, 2018).

Asynchronous learning 'gives teachers and students more room to breathe' which means teachers and students do not have to obey strict timetables instead, they are free to use digital platforms to exchange materials (Daniel, 2020). According to Daniel (2020), institutions should provide various conditions to support the students whose home environments are not convenient to study. Moreover, asynchronous learning gives teachers the opportunity of being flexible for preparing course materials, and students being comfortable at home and study at any time.

In a traditional face-to-face class, students have many opportunities to interact with their instructor and fellow students. Whether it's an informal chat before or after class, or participating in the classroom discussion, interaction can be an important factor in student success. Creating similar opportunities for participation and collaboration in an online course is one of the biggest challenges of teaching online. Asynchronous learning tools, such as, instant messaging, applications, online pages, YouTube, and blogs play an important role in humanizing online courses by replicating the classroom experience of information exchange and community building, not just between students and teacher but among the students as well. (Perveen, 2016)

## What is Asynchronous Learning?

Jarvis (2003) stated that internet-based distance education has two forms: synchronous and asynchronous which provide organized technological opportunities to students who study individually. The asynchronous online learning is an

unsynchronized method of learning, granted that the attendance of the teacher and the students can be distinct.

Martin & Oyarzun (2018) define asynchronous learning as an interactive learning community (Mayadas, 1997) course where most of the content is delivered online and students can participate in the online course from anywhere at any time, i.e., students are not limited in time or space (geography) in order for the learning to happen (Cleveland-Innes, 2018). Learning happens in a medium outside the classroom and with no face-to-face interactions. (Mick, 2015) states that asynchronous learning means that there is no set time for the learning to be occurring.

Asynchronous e-learning has been built on the basis of constructivist theory. Thus, asynchronous e-learning is a learner-centered process which uses online learning resources to facilitate information shared among a network of people. Asynchronous e-learning takes advantage of computer-mediated communication to achieve the promises of learning “anytime and anywhere” through asynchronous online discussions. (Khan, 2006)

Perveen (2016) and (Mick, 2015) state that asynchronous environments provide students with readily available material in the form of recorded audio/video lectures, handouts, articles and power point presentations, discussion boards, texts and images (that are accessible anytime anywhere) are used to convey the teacher’s message (p.22). Raymond, Atsumbe, Okwori, & Jebba (2016) gave some examples of online teaching tools “the teacher may decide to deliver his lesson through wikis, blogs, e-mail, Videotape, YouTube, discussion forums, email exchanges, chatrooms Digital Video Disc (DVD) or Podcast while the students can later respond through the use of communication modes like email. (p.4) (Daniel, 2020). (Tsipianitis & Groumpos, 2018, p. 346) Bernard et al. (2004) indicated that the communication between students and instructors is separated by distance and time as web-based courses and learners can respond at their leisure time (Parsad & Lewis, 2008).

Thus, asynchronous learning is a key component of flexible e-learning. In fact, many people take online courses because of their asynchronous nature, combining education with work, family, and other commitments. Asynchronous e-learning makes it possible for learners to log on to an e-learning environment at any time and download documents or send messages to teachers or peers. (McDonald, 2016).

Finally, asynchronous settings are temporally and geographically independent and defined as more individually based and self-paced as well as less instructor-dependent (Bernard et al., 2004; Murphy et al., 2011; Clark and Mayer, 2016; Xie et al., 2018).

## Advantages

Teaching presence must be as concerned with cognitive development as with a positive learning environment, and it must see content, cognition, and context as integral parts of the whole (Garrison & Anderson, 2003, p. 69). Innovations in electronic learning have also affected language learning and teaching (Martín-Blas & Serrano-Fernández, 2009). Second Language Acquisition (SLA) is a multifaceted process that occurs spontaneously in communicative situations. SLA is generally

considered a conscious, knowledge-accumulating process that usually takes place through formal education (Bialystok & Hakuta, 1999). Online learning can be an ideal medium for language learning because of its potential to utilize multiple teaching methods, strategies and learning styles.

Language learning is more of a skill-oriented process rather than content mastery. As most of online students work and study simultaneously, asynchronous mode is more appropriate to avoid anxiety (McLoughlin & Lee, 2010b; Guichon, 2010). Most of the studies related to asynchronous media have not explored students' performance and level of engagement so far (Yang, 2011).

With an asynchronous mode, learning is unconstrained by time and space. The traditional classroom transforms into a digital platform that can be accessed by students regardless of their geographical location. Researchers have proved that this form of teaching personalizes students' education. It allows the students to tailor to their preferred way and time of acquiring knowledge. Researchers believe that asynchronous modes of education have many benefits such as being convenience (McDonald, 2016).

At the same time, using online resources in students' knowledge acquisition enhances students' autonomy. Students learn to take charge of what they need for their learning process. Students' autonomy has been described as "a capacity – for detachment, critical reflection, decision making and independent action" (Little, 1991). Through digital mediums students are given "the opportunity to develop their own critical, creative and problem-solving skills and autonomy in learning." (Gavranović, 2017).

Another benefit suggested by McDonald (2016) is that of individualism. A student takes control of his own learning by setting goals and choosing what to learn, how to learn and when to learn. Students in this case have chosen to be perceived as "individuals" rather than "homogenous groups" by their instructors (Beyth-Marom et al., 2005). It gives students a chance to evaluate, reflect and "refine" their participation before sharing it (Hrastinski, 2008). Although in this method of learning, a student may be flexible with the time he chooses to learn in, but he usually spends more time on the contribution. Having more time to respond usually results in a more thoughtful response opposed to a spontaneous response to a given situation or task (Salihefendić, 2020). A student will need 6 minutes to give a face to face response that consists of 600 words, while to convey the same amount of words through email, an hour is needed (Kock, 2005).

Asynchronous e-learning can incorporate all L2 teaching methods that allow for delayed feedback and delayed response as in emails and discussion boards. Asynchronous language learning can be more encouraging for learners to ask questions that require long answers (AbuSeileek & Qatawneh, 2013). Written nature of communication allows greater opportunity to reflect and express ideas more freely than in face-to-face oral communication. Learners get ample time to reflect on other students' language expression and can compose their own by careful design and improvement for precision. Written exchange of communication can also be useful for those students who do not actively participate in written discussions and remain

passive readers. Forum discussions can be helpful in discourse development for timid students due to the anonymity of identity (MacIntyre, Clément, Dörnyei & Noels, 1988).

Howard Gardner (2011) challenges any educational system that provides same pedagogical design, i.e., same content and method of teaching to all students with multiple intelligences. Each may have a different cognitive approach to learning and the learning style may vary from visual-spatial to kinesthetic, musical to interpersonal or intrapersonal and linguistic to logical mathematical (Gardner, 2011). To cater multiple and unique learning styles of students, a pedagogy of multiliteracy is required (Guth & Helm, 2012). Online learning environments provide a room for multiliteracy because of multiple ways of communication through multiple media connected to a multiple world in multiple ways (Stein & Newfield, 2006). This expanding landscape of learning is more important for English language learning, which has gained the status of an international language (Crystal, 2012), because online learning provides a global context for teaching English as a second language. Electronic language learning environment has the potential to move from Grammar Translation to Audio-lingual methods or from The Silent Way and Suggestopedia to The Communicative Way (Larsen-Freeman & Anderson, 2013). The potential to use them all leads to a principled eclectic approach (Mellow, 2002), which is pluralistic in nature leading to the timely use of any method based on needs analysis.

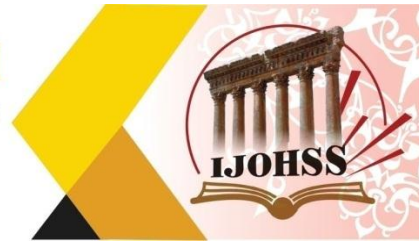
## Literature Review

### previous studies:

The usage of Synchronous and Asynchronous seems simple for the teachers, but not having the students in front of them, the teachers are half blind in these situations. Teacher do not know how much the students have improved with the e-learning. That's why a lot of research is undertaken for this area. As stated by Al-Shagran & Sahraoui (2017) "E-Learning must go through evaluation process to check its capability for achieving the outcomes expected from using it."(p.1)

#### - Tümen Akyıldız (2020):

The current research aimed to examine the perceptions of Turkish university students on the pandemic distance education period. It was conducted by focus group discussion. The researcher carried out the discussion via Skype as one of the best ways in pandemic period. A number of issues that were obtained from the discussion were identified through qualitative content analysis. The findings have revealed that most of the participants were affected by the pandemic period negatively feeling anxiety, despair, and boredom. It is apparent that pandemic education process has had its weaknesses rather than its advantages such as lack of interaction, and communication which lead the students to isolation, problems about exams, traditional educational habits, the load of assignments, and time management.



- **Ogbonna, Ibezim, & Obi (2019)**

This study is conducted by Ogbonna, Ibezim, & Obi (2019) and used two instruments, a pre- and post-tests, which were administered to two non-equivalent and nonrandomized groups of students. The study was conducted in two secondary schools in Nigeria. “The findings of this study show that teaching word processing through synchronous and asynchronous e-learning modes increased the cognitive academic achievement of students in that subject.

- **Xie, Liu, Bhairma, & Shim (2018)**

The study conducted by Xie, Liu, Bhairma, & Shim (2018) comprised of 38 students, who had prior experiences with synchronous and asynchronous e-learning courses and computer mediated discussions. Based on the findings, the researchers stated that students felt more comfortable using asynchronous communicational tools in comparison to synchronous communication tools as they could easily access those offline. Moreover, students strongly agreed that the presence of instructor and prompt feedback during a class makes them learn better.

- **Perveen (2016)**

This case study evaluated the impact of synchronous and asynchronous E-Language Learning activities (ELL-activities) in an E-Language Learning Environment (ELLE) at Virtual University of Pakistan. Three research methods were used: observation, the collection of students’ opinions via a structured questionnaire and the student’s discussion about the preference of a/synchronous modes on the Graded Discussion Board (GDB).

The findings revealed that asynchronous e-language learning was quite beneficial for second language learners, but with some limitations which could be scaffolded by synchronous sessions. Asynchronous mode can be beneficial as students can construct their responses in second language by carefully thinking and analyzing. Thus, the research concluded that both synchronous and asynchronous e – language learning should be blended.

- **Skylar (2009)**

(Emmanouilidou, Derri, Antoniou, & Kyrgiridis, 2012, p.202) Skylar (2009) conducted a study, in which forty-four pre service general education and special education students enrolled. All students received both conditions: synchronous interactive web conferencing lectures and asynchronous text-based lectures. The instruments used in this study included a pretest, posttests, student satisfaction survey, and a pre/post computer literacy survey. The

results of this analysis suggest that both types of lectures were effective in delivering online instruction.

- **Roblyer, Freeman, Donaldson, and Maddox (2007)**

Roblyer, Freeman, Donaldson, and Maddox (2007) also had their notable results in comparing synchronous and asynchronous formats. When asked about the access to the teacher, a majority of students complain about the present issue comparing it to the traditional classroom instruction. Nearly half of the students in the research indicated that e - learning courses are more difficult and present more challenges than traditional ones. When teachers evaluated the e - learning courses in the same research they noted that the online process increases their experience with technology but they added that student attention, enjoyment, and interaction do not get higher. Lastly, nearly all of the teacher participants agreed on the point that online classes make high-quality courses available to several students and achieve its aims in this way.

- **Bernard et al. (2004)**

Bernard et al. (2004) compared, in their meta-analysis research, synchronous and asynchronous distance education forms to traditional classroom instruction. Their findings are remarkable. While students' achievement is significantly higher, and students' attitudes are more positive in asynchronous form; retention is significantly higher in traditional classroom education.

- **ClevelandInnes, and Ally (2004)**

ClevelandInnes, and Ally (2004) tested two delivery forms for affective learning outcomes. The researchers discussed the interaction among students in terms of being flexible or not. Participants found asynchronous learning platforms more convenient. It is due to that they have more time to reflect on their learning. They claimed that in asynchronous learning environments interaction among students is more flexible. In other words, students can interact with one another whenever and wherever they like. On the other hand, asynchronous learning platforms create a sense of disconnection between students and teachers due to the lack of social interactions and feedback (Branon & Essex, 2001; Hines & Pearl, 2004).

### **Methodology:**

Qualitative social research is conducted to give suggestions to the audience on how to do better and how to have better services concerning the similar experiences and problems. (Silverman, 2010). In this kind of studies, the focus is primarily on experiences and reflections of people (Lincoln & Guba, 1985). Qualitative research addresses social problems and affects the practitioners' practice providing detailed descriptions of the case and allowing them to make inferences about their own lives (Bloor, 2016). Thus, the methodological approach taken in this study is a qualitative one.

### **Participants:**

Population of the study comprised all the students who are within the criteria of the research because they have attended the asynchronous e - learning courses through the first semester of the academic year 2021-2022 of two public high schools in Dohuk city ( Hassar High School for girls and Al-ta'khi High School for boys). The researchers conducted the research procedures within virtual high schools by multistage sampling design. The researchers selected asynchronous e-learners from three virtual classes from the two high schools which were confined in Dohuk city. The students were at different years of study, age groups, and different knowledge levels of English language. They are 38 males and 20 females. Moreover, they are grouped by age as (1= 16 yrs), (2=17 yrs), (3=18yrs).

### **Research questions:**

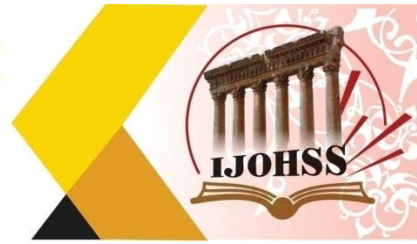
In the introduction part, relevant literature has been discussed about distance education in the pandemic period and its types. There are not enough studies addressing students' achievement in using distance education so far –by the best knowledge of the researchers. The absence of such studies led the researchers to investigate it with the aim to contribute to the field. Thus, the following research questions are examined in this review:

- 1) Is using asynchronous learning helpful and motivational for high school students?
- 2) Is there any significant difference between male and female students in using asynchronous e-learning?
- 3) Is there any significant difference between the three age groups in terms of their academic performance in using asynchronous e-learning?

### **Objectives of the Study:**

The study was conducted to achieve the following objectives:

1. To identify the students' achievement in English language using asynchronous e-learning activities at high schools.
2. To recognize the difference in students' achievement in English language using asynchronous e-learning at high schools in terms of gender and age.



### Hypotheses of the Study:

The study was intended to verify the subsequent hypotheses:

1. The students at high schools do not make a remarkable achievement in using asynchronous e-learning.
2. There is no significant difference in the students' achievements for the effectiveness of asynchronous e-learning activities at high schools in terms of both gender and age.

### Results:

The individualism associated with asynchronised learning is not always perceived as a benefit. Many scholars worry that with the lack of direct interaction with teachers or peers, students may feel isolated from the learning communities. Students were seen to fail to work in collaborative discussions (Kock, 2005). Success in an asynchronised learning environment is linked to students' motivation. Without an inner drive to do the work, it may result in "accumulation of a workload" and pending tasks. Hence, the benefits of asynchronised learning "is likely to be heavily influenced by the attitudes of the individual" (Ranasinghe, 2019).

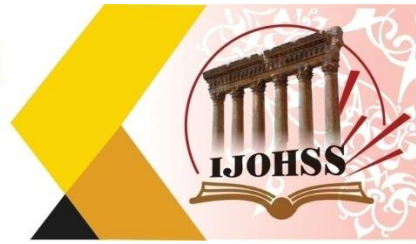
The results of the research show that most students did not record a remarkable achievement in attending asynchronous e-learning. In Hasar High School for girls, only one out of twenty students passed in final exams of the first course for the academic year 2021-2022. While in Al-Ta'xi High School for boys, eighteen students out of 29 ones passed the final exams of the same course of the same academic year.

In 10<sup>th</sup> grade in both schools, all students who attended asynchronous e-learning did not pass in final exam of English language of the first course for the academic year 2021-2022. This means that 0% of the 10<sup>th</sup> grade students in both schools did any achievement. No significant differences can be found in the achievement of male and female students (in terms of gender variation) in both mentioned schools.

The same result can be mentioned concerning 11<sup>th</sup> year students in both schools for all of them did not pass in the final exams of English language in the same course and academic year in both schools. At the same time, no significant differences can be found in the achievement of male and female students (in terms of gender variation) in both mentioned schools.

A significant difference can be found for the students of the 12<sup>th</sup> year students specially in Al-Ta'xi High School for boys. Eighteen students out of twenty-nine passed in English language exam and this makes 62% of the 12<sup>th</sup> grade students. While in Hasar High School for girls, only one student out of ten passed in English language exam and this makes 10% of the whole population of 12<sup>th</sup> year students in that school. Thus, a significant difference can be found in students' achievement in favor for boys than for girls.

The following tables show the details of asynchronous learners in both schools.



#### Hasar high school for girls

Grades	a-synchronous students	Students passed in the exam	Ratio
10 <sup>th</sup> year students	6	0	0%
11 <sup>th</sup> year students	4	0	0%
12 <sup>th</sup> year students	10	1	10%

#### Al- Ta'khi high school for boys

Grades	a-synchronous students	Students passed in the exam	Ratio
10 <sup>th</sup> year students	6	0	0%
11 <sup>th</sup> year students	3	0	0%
12 <sup>th</sup> year students	29	18	62%

While it is important to understand that technology should be used as a 'tool' for learning, most of the students who attended asynchronous e-learning stated that they spent most of their time of using technology tools (mobiles, ipads, tablets and laptops) for learning in gaming and using social media applications.

They added that there are many reasons that made them to misuse technology tools in attending asynchronous learning such as boredom and social isolation. Lack of parenting involvement also encouraged the students in misusing technology for education.

#### Discussion:

The idea that English language can be better learnt in an asynchronous mode is very interesting. This reflects a psychological sense of loss of not being able to talk to or see the teacher and a wish to interact directly, as they used to in their traditional classrooms. This may be due to the tendency that asynchronous e-learning lends itself to more independent students who are willing to take control of their learning. However, McDonald (2016) states that asynchronous learning encourages individualism, allowing students to take control of their learning. However, the success of asynchronous learning is related to motivation, students need intrinsic motivation for this mode of learning to be successful (Ranasinghe, 2019). At the same time, students are happy with the fact that asynchronous mode is not time and place bound and gives time for reflection to construct responses in L2. Therefore, asynchronous mode is more suitable for them (McLoughlin & Lee, 2010a).

#### Conclusion:

Asynchronous students prefer solving their problem and finding solution for issues and deciding about them in decision making process. They prefer to be involved with technical issues rather than social and interpersonal issues. Individualized learning

projects that allow for practical applications to provide information in various formats are some suitable methods of learning among asynchronous e-learners.

During the uncertain times of Covid-19, students were introduced to crisis education, which involved different e-learning modals. Students were exposed with no preparation mentally or technically, and educators were forced to make rapid decisions on the continuation of education, as successfully as possible. In doing so, educators implemented asynchronous and synchronous e-learning. Courses were designed with no time for research, and were implemented as being not designed for e-learning.

As noted by Midkiff & DaSilva (2000) “The success of web-based learning requires taking advantage of the additional opportunities this new medium brings.” Furthermore, according to Cleveland-Innes & Ally (2004) “In order to facilitate learning in the affective domain, we suggest that education must look more carefully at processes of interaction with others to foster learning outcomes.” (p.18)

The findings of the study indicate that the assessment of the outcome of the students in using asynchronous language learning environment helps the researchers to develop deeper understanding of the relationship between content, pedagogy, technology and the context of the existing instructional design (Koehler & Mishra, 2005); as well as the measures to be taken in the future for developing an integrated instructional design for English language teaching in general. Asynchronous mode can be beneficial as students can construct their responses in L2 by carefully thinking and analyzing but it needs to be blended with traditional face to face teaching. For this purpose, a specific virtual language teaching curriculum design should be worked on to cater the needs of students. At the same time, the results can be generalized to all other subjects. Finally, as online education is no more a new phenomenon, it is time to design subject-oriented asynchronous learning environments rather than just to talk about general online learning environments.

### **Recommendations**

On the basis of the findings, the following recommendations are made:

- Traditional face-to-face teaching facility with asynchronous learning should be available at schools.
- Advanced training courses must be given to teachers and students by focusing on serious attention to learning experiences contained adaptable online learning opportunities.
- Course and program both must be designed on the basis of developmental research in the field of online learning.

### **Further Research**

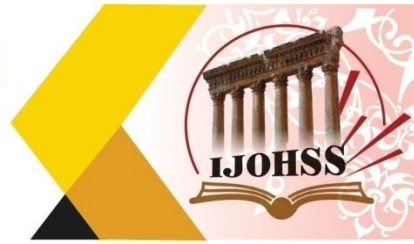
The results excavate many areas for future research

- The effectiveness of blending face-to-face and online language teaching environments.
- Challenges and ways of overcoming them in the use of online mode for L2 teaching.

- The perspective of students and teachers in reference of using e-learning.

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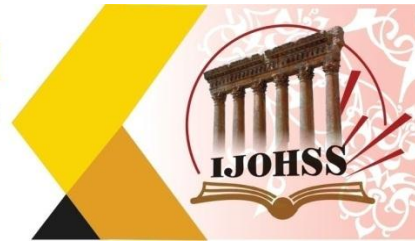
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