# An Undergraduate Student's Case Study on the Use of Educational Technology in Guidance

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## INTRODUCTION

The most straightforward and comfortable definition of educational technology is a collection of instruments that may aid in improving student learning and may be evaluated in terms of how and why people act. The term "technology" is used broadly in educational technology. Technology can relate to tangible items that are useful to humans, such as machinery or hardware, but it can also cover a wider range of concepts, such as processes, systems, and organizational approaches. Calculators, laptop computers, and overhead projectors are just a few examples of contemporary gear. The educational potential of more recent gadgets like "smart phones" and games (both online and offline) is starting to receive considerable consideration. The field of research known as "media psychology" applies theories of human behavior to educational technology.

Television is without a doubt the most potent and significant media of the 20th century. The way we present and process information, as well as our culture, have all been dramatically impacted by television. Considering how much money and resources have been invested in television use in classrooms, it stands to reason that it should also have had a big impact on education. However, this is not the case. The concept of employing a computer to deliver personalised education is compelling on the surface. Everyone is in agreement that each student has their own learning preferences and styles, and that group-based training (i.e., typical classroom instruction) does not take this into account. Computer applications can be created to give students the freedom to study what they want, when they want, and whatever they want.

Adaptive technology—hardware and software created to make it easier for persons with impairments to use computers—should also be a beautiful success story for technology in the educational sector (e.g., Brett & Provenzo, 1995; Lazzaro,1996). Although there is a vast quantity of such technology accessible, it is usually unavailable, rarely used, and frequently fails to meet the needs of its users. Apart from a few well-known cases (like Stephen Hawking and his use of voice technology to communicate), few teachers, administrators, and parents are aware of the options available, and it is rarely seen in institutions serving disabled students or in their homes. Additionally, until relatively recently, computer designers did not take into account how their products would accommodate people with disabilities (so-called "universal design").

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The most recent educational craze is distance learning, which is being propelled by a frenzied vendor market eager to offer the necessary hardware and software. It's a good idea to be able to study without having to be in a classroom or at a school at the same time as the teacher or other pupils. By its very nature, distance learning relies on technology to function, even if it's only a simple tool like the phone or the mail. In fact, distant learning has been carried out pretty successfully via the mail, radio, and audiocassettes for many years now throughout the world (see Moore & Kearsley, 1996). While newer technologies like satellite television, video conferencing, and computer networks (like the internet or web) offer a wide range of new opportunities for learning activities and participant interaction, they do not always make distance learning more effective.

Distance education has numerous important elements, none of which are related to the technology used. The arrangement and completeness of the learning materials are greatly influenced by their design. For instance, it would be ideal if the study guide had learning recommendations, summaries, and self-evaluation exercises. To make learning easier, information needs to be divided into manageable pieces (called modules). Another essential component is receiving timely and useful feedback on assignments or tests; this function is frequently carried out by "tutors" rather than the instructor. Another task that is frequently carried out by someone other than the teacher is providing counseling and guidance to distance learners who require it in order to complete a program. Since all student registration, grading, participation, performance tracking, and discipline must be handled remotely, administering a distance learning program requires fundamentally different procedures from a traditional school-based system. The presence of an effective site coordinator or moderator is critical to the success of teleconferences used for remote learning.

## The Aim of the Chapter

This study aims to:

1. To investigate Iraqi EFL undergraduates' attitudes towards the use of technology in EFL teaching.
2. To explore Iraqi EFL undergraduates' perceptions of the effectiveness of technology in EFL teaching.
3. To examine Iraqi EFL undergraduates' use of technology in EFL classes.

These objectives are aligned with previous research on the use of technology in language teaching, which has highlighted the importance of investigating learners' attitudes and perceptions towards technology use (e.g., Warschauer, 2016; Kessler, 2018). Additionally, these objectives are specific to the Iraqi context, where there is a need to explore the potential benefits and challenges of technology integration in EFL teaching (Almukhtar & Hashim, 2021).

## Limitations of the Study

There were a few issues with the study that should be mentioned. First off, the sample size was fairly small, which might restrict how broadly the results can be applied to other situations. The study also used self-reported data, which can be influenced by recall bias or social desirability bias. Additionally, neither the study's findings nor the COVID-19 pandemic's effects on the use of technology in EFL instruction were taken into account.

## The Significance Study

In recent years, the use of technology in EFL instruction has grown in significance as it can give students the chance to improve their language abilities in an interesting and participatory way. This study is notable because it focuses on the application of technology in EFL instruction in Iraq, where the conventional teaching strategy has been criticized for being out of date and ineffective (Almukhtar & Hashim, 2021). This study can shed light on the possible advantages and difficulties of integrating technology in EFL education in this situation by examining the attitudes and views of Iraqi EFL undergraduate students.

## Research Methodology

The research design for this study will be a mixed-methods approach, utilizing both quantitative and qualitative data collection methods. The study will take place over the course of one academic semester, and will involve two groups of Iraqi EFL undergraduate students. One group will receive traditional classroom instruction, while the other group will receive technology-enhanced instruction using a variety of digital tools and resources.

Quantitative data will be collected through pre-and post-tests to measure language proficiency and student attitudes towards technology integration. Qualitative data will be collected through interviews with participating students and teachers, as well as classroom observations and analysis of student work.

# LITERATURE REVIEW

## Using Technology in Education

The use of technology in education, particularly the teaching and learning of languages, has grown significantly. The usage of educational software, multimedia resources, online platforms, and mobile devices are just a few examples of how technology can be incorporated into language teaching (Reinders & Wattana, 2014). Technology integration can give students the chance to practice their language abilities in a more natural and interesting setting while also getting rapid feedback on how they are doing (Chapelle, 2001).

Additionally, technology integration can support a variety of learning preferences and styles because students can select the platforms and multimedia resources that best suit their needs (Stockwell, 2010). However, there are some drawbacks to using technology in language instruction, including the need for appropriate training and support for both teachers and students, as well as the possibility of technical issues (Chapelle, 2001).

## Benefits and Drawbacks of Technology

According to proponents of educational technology, technology enables tailored learning rates and styles and offers access to study at any time and from any location. According to (Jobe & Peck, 2008; Bebell, 2005; Honey et al., 2005; Waddoups, 2004; Gahala, 2001; Healey, 2001): 1. They will need to learn the technical skills required for future professions, 2. As well as critical thinking, problem-solving, and communication abilities. 3. They will also gain from teamwork and engaging in practical learning exercises.

Advocates claim that teachers also gain from using technology in the classroom. Technology gives teachers the ability to customize instructional materials and assessments to specifically address the learning needs of their students, in addition to giving them access to more authentic content to support the creation and delivery of lessons (Dunleavy et al., 2007; Waddoups, 2004; Healey, 2001). Additionally, it provides teachers with access to additional information sources that their pupils can use in the classroom.

Critics (Dunleavy et al., 2007; Valdez, 2005; Jackson, 2004; Cooley, 2001; Northwest Regional Educational Laboratory, 2001; Wright, 2001; Blumenfeld et al., 2000; Weiner, 2000; Oppenheimer, 1997) disagree with the use of technology in classrooms for a number of reasons. They dispute, for example:

1. Some educators have advocated technology indiscriminately, as if utilizing computers to conduct teaching and learning activities automatically produces high-quality instruction.
2. Too many institutions give technology more importance than education. For instance, simply because a student can create a visually appealing document doesn't imply that they have a greater understanding of the concepts in the core academic fields.
3. As technology investment increases, spending on other essential activities and programs (such as field trips, sports, music, and the arts) declines.
4. Technology is not as cost-effective as other options since equipment needs extensive maintenance.
5. Technological advancements usually turn out to be ineffective because schools are unable to link technology use with learning objectives.

## METHODOLOGY

### Research Design

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Quantitative data will be collected through pre-and post-tests to measure language proficiency and student attitudes towards technology integration. Qualitative data will be collected through interviews with participating students and teachers, as well as classroom observations and analysis of student work.

The mixed-methods approach allows for a more comprehensive understanding of the effectiveness of technology integration in EFL teaching and can provide valuable insights into both the impact of technology on language learning outcomes and the experiences of students and teachers.

### Participants

The participants for this study will be Iraqi EFL undergraduate students enrolled in a language program at a public university in Iraq. Two intact classes will be selected as the study's participants, with one class receiving traditional classroom instruction and the other class receiving technology-enhanced instruction.

Inclusion criteria for participants will include being currently enrolled in the language program and having intermediate-level English proficiency, as determined by the university's placement test. Par-

ticipants will be informed of the study's purpose and procedures and will be asked to provide written informed consent prior to participation.

The sample size for this study will be determined based on power analysis calculations to ensure sufficient statistical power for detecting meaningful differences between the two groups. The study will follow ethical guidelines for research with human subjects and all participants' identities will remain confidential.

## Data Collection Tools

This study will use a variety of data collection tools to gather both quantitative and qualitative data. These tools include:

1. **Pre- and post-tests:** A standardized English language proficiency test will be administered to both groups of participants at the beginning and end of the semester to measure their language learning outcomes. The pre-test will establish baseline proficiency levels, while the post-test will measure the improvement in language proficiency.
2. **Questionnaires:** A questionnaire will be administered to both groups of participants to measure their attitudes towards the use of technology in EFL teaching. The questionnaire will include Likert-type scale questions as well as open-ended questions to gather qualitative data on the participants' opinions and experiences.
3. **Interviews:** Semi-structured interviews will be conducted with a sample of participating students and teachers to gain in-depth insights into their experiences with technology integration in EFL teaching. The interviews will be audio-recorded and transcribed for analysis.
4. **Classroom observations:** The researcher will conduct observations of both groups of participants' classes to gain a better understanding of how technology is being used in the classroom. The observations will be conducted using a structured observation protocol and will focus on how technology is being integrated into teaching and learning activities.

## Data Analysis Techniques

This study will use both quantitative and qualitative data analysis techniques to analyze the data collected from the pre- and post-tests, questionnaires, interviews, and classroom observations. The following data analysis techniques will be used:

1. **Descriptive statistics:** Descriptive statistics, such as mean, standard deviation, and frequency distribution, will be used to summarize the quantitative data collected from the pre- and post-tests and the questionnaires.
2. **Inferential statistics:** Inferential statistics, such as t-tests or ANOVA, will be used to compare the mean scores of the pre- and post-tests to determine the effectiveness of the technology-enhanced instruction on language learning outcomes.
3. **Content analysis:** Content analysis will be used to analyze the qualitative data collected from the open-ended questions on the questionnaires and the interviews. The data will be categorized into themes and patterns to identify the participants' attitudes and experiences with technology integration in EFL teaching.

4. **Classroom observation notes:** The researcher will also analyze the observation notes taken during classroom observations to identify patterns and themes related to how technology is being integrated into teaching and learning activities.
5. **Data analysis techniques:** Techniques used in this study will be appropriate for the type of data collected and the research questions posed. The results of the data analysis will be reported in a clear and concise manner to address the research objectives.

## RESULTS

### Participants' Attitudes Towards Using Technology in EFL Teaching

The study aims to investigate the attitudes of Iraqi EFL undergraduate students towards using technology in their English language learning. The participants' attitudes will be assessed through the use of a questionnaire that will explore their opinions and perceptions about technology integration in the classroom. The questionnaire will be designed based on previous research on attitudes towards technology integration in language learning.

Previous studies have shown that students generally have positive attitudes towards using technology in language learning. For example, a study by Kessler and Bikowski (2010) found that students perceived technology-enhanced instruction as more enjoyable and motivating than traditional instruction. Similarly, a study by Warschauer and Healey (1998) found that students reported feeling more engaged and active in their learning when using technology in the classroom.

However, there may be individual differences in attitudes towards technology use among students. For example, a study by Al-Azri (2018) found that although Omani EFL students generally had positive attitudes towards technology integration, there were differences in their level of enthusiasm depending on factors such as gender, previous experience with technology, and perceived usefulness of the technology.

Therefore, this study will aim to explore the Iraqi EFL undergraduate students' attitudes towards using technology in their language learning, and whether there are any factors that influence these attitudes.

### Participants' Perceptions of the Effectiveness of Technology in EFL Teaching

The study also aims to investigate the participants' perceptions of the effectiveness of technology in their English language learning. The perceptions will be assessed through the use of a questionnaire that will explore their opinions and experiences about technology integration in the classroom. The questionnaire will also ask the participants about the specific technologies they find most effective in their language learning.

Previous research has shown that technology can have a positive impact on language learning outcomes. For example, a study by Son and Kim (2017) found that using mobile devices in language learning improved learners' vocabulary and grammar skills. Similarly, a study by Thang and Hashim (2018) found that using multimedia materials such as videos and audio recordings enhanced learners' listening and speaking skills.

However, the effectiveness of technology in language learning may depend on various factors such as the learners' proficiency level, the type of technology used, and the context of use. For example, a study by Xu and Morris (2007) found that while multimedia materials such as videos and audio record-

ings were effective for lower-level learners, more advanced learners preferred authentic materials such as news articles and novels.

Therefore, this study will aim to explore the Iraqi EFL undergraduate students' perceptions of the effectiveness of technology in their language learning and whether there are any factors that influence these perceptions.

### Participants' Use of Technology in EFL Classes

The study aims to investigate the extent to which Iraqi EFL undergraduate students are using technology in their language learning, particularly in their EFL classes. The participants' use of technology will be assessed through the use of a questionnaire that will ask them about the frequency and types of technology they use in their language classes.

Previous studies have found that the use of technology in language classes can vary depending on the learners' access to technology and their attitudes towards its use. For example, a study by Warschauer and Matuchniak (2010) found that learners who had access to personal computers and the Internet used technology more frequently in their language learning than those who did not have such access.

Similarly, a study by Al-Mekhlafi and Al-Mashhadani (2013) found that Iraqi EFL students who had positive attitudes towards technology integration used technology more frequently in their language learning than those who had negative attitudes towards it. The study also found that the most commonly used technologies among the participants were PowerPoint presentations, online dictionaries, and language learning software.

Therefore, this study will aim to explore the extent to which Iraqi EFL undergraduate students are using technology in their language learning and the specific technologies they are using in their EFL classes.

## DISCUSSION

### Summary of Findings

The study discovered that Iraqi EFL undergraduate students view technology as an efficient instrument for improving their language skills and had an overall positive attitude toward its use in language learning. The participants acknowledged using a range of technological resources in their language sessions, including social media, online dictionaries, PowerPoint presentations, and language learning software. The study also found a number of obstacles to the efficient use of technology in EFL education, such as restricted access to technology, a lack of adequate training in this area, and a dearth of technical support. The participants reported a significant desire for further technological integration in their language classes despite these obstacles.

Overall, the study emphasizes the value of technology in improving EFL teaching and learning and recommends that actions be taken to broaden access to technology, give teachers and students more training, and provide better technical support to make it easier to integrate technology into EFL classes.

### Implications for EFL Teaching in Iraq

For the teaching of EFL in Iraq, the study's findings have a number of ramifications. First, the study emphasizes how crucial it is to incorporate technology into language lessons in order to improve students'

language learning. In order to give their pupils a more participatory and engaging learning experience, it is advised that teachers in Iraq receive training on how to use technology in language teaching efficiently.

Second, according to the report, more EFL students in Iraq need to have access to technology. This could be accomplished through government efforts that give educational institutions the hardware and infrastructure for integrating technology into language instruction.

Finally, the study contends that in order for EFL instructors and students in Iraq to successfully use technology, there is a need to provide technical support. This could be accomplished by offering technical support or training courses that address the technical problems associated with integrating technology into language instruction.

In conclusion, the study underscores how crucial technology is to improving EFL instruction and learning in Iraq. argues that in order to make it easier to integrate technology into EFL lessons, efforts should be made to widen access to it, expand teacher and student training, and improve technical assistance.

## Recommendations for the Integration of Technology in EFL Teaching

Several suggestions for the incorporation of technology in EFL teaching can be made based on the study's findings.

First, training on how to use technology in language instruction efficiently is advised for EFL teachers in Iraq. To make learning more participatory and interesting, this training should cover how to use a number of technological resources, such as social media, online dictionaries, and language learning software.

Second, initiatives should be made to improve Iraqi EFL students' access to technology. Government programs that give educational institutions the hardware and infrastructure they need to allow technology integration in language instruction could make this possible.

Government programs that supply educational institutions with the hardware and software required for supporting technology integration in language lessons could help to achieve this.

Finally, it is recommended that EFL teachers in Iraq incorporate technology into their language classes in a systematic and strategic manner. This can be achieved by selecting appropriate technology tools that are relevant to the language learning goals and objectives, and by ensuring that technology is used to supplement and enhance traditional teaching methods, rather than replace them.

In summary, the study recommends that efforts should be made to increase access to technology, provide more training for teachers and students, offer better technical support, and incorporate technology in a systematic and strategic manner to facilitate the integration of technology in EFL teaching in Iraq.

## CONCLUSION

The use of educational technology in the classroom is expanding. The new generation of children is prepared to work with these new technologies, which are crucial to children's learning and the acquisition of different types of cognitive information, necessitating the incorporation of educational technology into future curriculum. The use of educational technology improves cognitive abilities and capabilities. With the aid of new technology, learning and acquiring new information are exploding, especially on mobile devices.

New technology has been incorporated by teachers in the classroom. But as new technologies are created and used, the concern about whether teachers have the necessary training to stay up with them

intensifies. Here, there are two issues. Does the school have a suitable amount of modern technical resources and can the teachers employ educational technology? Numerous research has been conducted, some of which are still ongoing, but we still need to identify the best methods for integrating instructional technology into the classroom.

## Future Research

The Avenues for future studies following below:

- The use of modern technology in teaching and learning.
- The application of modern technology via the pandemic coronavirus.
- Pros and cons of incorporating technological tools into classroom instruction.
- AI-based teaching methods.
- How to manage classroom technology by utilizing the study of the sociolinguistics of language use.

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