

Technology Integrated Teaching and Its Positive and Negative Impacts on Education

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Abstract: Technology has become an integral component of the contemporary and educational world. This topic has been the subject of substantial research and several articles across the globe, but since such studies are limited in Iraq (approximately 10 articles, according to Google Scholar), it has been determined and researched. As a result, the positive and negative consequences of technology's impact on education were studied in this study. A Google Form questionnaire with five questions was conducted to 26 volunteers with varying levels of education in order to assess the reception of the obtained data among educators. According to the collected data, ICT-integrated education has favorable effects on students and teachers and makes the acquired knowledge more permanent and credible.

Keywords: Education and Technology, ICT Based Education, Technology Integrated Teaching

1. Introduction

The 21st century is the technological age and this century's technological advancements have had far-reaching effects on people all across the world (Kara & Yildiz, 2022). Societies that cannot keep up with the speed of technology have remained spectators to the marvels of the present, whilst nations that can keep up with the pace of technology have attained their rightful place. Technology simplifies our work and enables us to better manage our time, which is one of its primary advantages. Education is one of the most important fields where the benefits of technology are most apparent (Raja & Nagasubramani, 2018).

The significance of technology in the classroom is growing daily. It is highly suggested that technology be incorporated into the curricula of today's generations, as they are technologically dependent and employ it in every part of their lives. The process of learning is a procedure that involves interaction and utilizing instructional technology enhances students' talents and learning capacity (Yildiz & Celik, 2020). Students have access to the information they require at the speed of light, if that is the accurate expression, because of technology, especially the use of mobile phones (Lazar, 2015).

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Technology is a resource that facilitates communication between teachers and students in the classroom. Teachers of foreign languages greatly benefit from the use of technology in the classroom (Yildiz, 2021;2022a). Therefore, the language instructors of today must learn how to effectively use and incorporate technology into their lessons.

Technology equipment, such as smart boards, smart phones, computers, and tablets, can be incorporated into education to reduce the strain of teachers. In contemporary culture, technology permeates every element of existence. These tactics can all be used to motivate and engage children (Altun, 2015).

The incorporation of technology into a foreign language provides various benefits. Educators who use technology to teach a foreign language can simply impose the target language. Because of these factors, students are more motivated, their learning skills increase, and learning becomes more enjoyable (Alieva, 2013). Educators who learn to integrate technology into the classroom use dramatically different instructional strategies than those who do not. It has been shown that teachers with greater ties with their students are those whose lessons utilize ICT favorably (Christensen, 2017; Kara, 2020).

ICT serves a critical role in the development of a pedagogical environment for educators and is an integral component of learning and teaching. Technology assists a teacher in actively communicating his information to his students and in their positively perceiving that knowledge. Technology will play a key role in education in the future. It should be adequately included into all areas of education, particularly teacher preparation programs, and its importance should be emphasized (Ratheeswari, 2018).

2. Technology in Education

ICT is a revolution in education, and it has allowed us to examine the learning techniques we are accustomed to, the way schools are governed, the resources we utilize, and, most significantly, from a perspective that everyone is familiar with (Haddad & Draxler, 2002). Learners strive towards native-like competency in a second language and to be proficient, students must display accuracy and fluency (Daskan & Yildiz, 2020). To manage that, teachers must provide learners with technology-based education, and educate and train themselves at this level as well. In this context, educators should include the transfer of technology to students and the preparation of technology-integrated classes in their lesson plans and annual goals (Kelly & McAnear, 2002).

Today, ICT is a common topic in the implementation and growth of education throughout nations. Communication tools such as the telephone, the internet, and the computer are familiar and utilized by all individuals. Everyone has their own technological device in the modern world, and these devices are employed for common tasks. Almost every nation endorses the use of these communication techniques in education. ICT is an important topic for global education that must be highlighted (Selwyn, 2012).

2.1 Importance of Technology in Education

With the advent of modern computing technologies, the barriers to distant education have crumbled and the velocity at which knowledge can be transferred has increased dramatically. Online courses with the help of computers are now possible, and technological advancements have brought numerous benefits to

the field of education (Yildiz, 2022b). The world is evolving, the populations of countries are growing, and people's interests and preferences are altering daily. Depending on these alterations, we must consider various educational approaches, and these instruments must appropriately portray the significance of education. Consequently, technology is becoming the most essential educational instrument (Mondal, 2021).

There are numerous ways to include technology into language classes when teaching a foreign language. In this way, the Internet alone is like an unending treasure regardless of other possibilities. If we begin to write about the internet, it may be necessary to produce an entire book of articles. Utilizing and integrating technology in the classroom has yielded numerous benefits for educators. This is not just for the instructors' benefit, but also for the students', as it facilitates a deeper understanding of the subject and makes the learning permanent (Alieva, 2013).

One of the most significant contributions of IT to the field of education has been the ability for students to conduct study on extracurricular resources and leave the classroom environment (Mishra, 2005). In comparison to other age groups, students comprehend and implement technology more quickly. This is an engaging pastime and way of instruction for them. Students are thereby prepared for the world of the future and readily absorb innovations. Moreover, ICT enables students and other individuals to communicate with diverse individuals and opens the doors to the worldwide community (Hussain & Safdar, 2008).

3. Impact of ICT on Education

Since it is the century of technology, we should use technology in all sectors of life. The most essential and most required field among these categories is the world of education, because technology includes the shortest means to obtain information, the source of information and rich resources. According to research studies, getting technology increases the permanence of knowledge and its greater understanding (Mondal, 2021).

According to Tinio (2003), ICT has many benefits in terms of acquiring knowledge in the field of education and its acceptance by students and teachers, and these are as follows.

Active Learning: ICT tools help to examine and analyze the information obtained from the exams and to store the information in digital environment and to investigate when necessary. ICT also helps students choose topics about real life problems based on their own learning level and taste, which makes learning more fun. Thanks to technology, students in today's student-centered classrooms are able to meet in the same environment, comment on events, and consider various alternatives to problem solutions (Jaber, 1997).

Collaborative and Cooperative learning: Students can collaborate through the use of technology to share ideas and experiences (Shatri, 2020). Another benefit of ICT to education is that it provides the connection and interaction between students and educators, no matter how far the distance. And also, ICT allows students to interact with students from other parts of the world, do group work, and increase their worldview and speaking skills. ICT allows people to communicate with each other as if they were in the

same room. Online resources allow people to collaborate, share information resources, and get ahead of time (Bessagnet et al., 2005).

Creative Learning: ICT helps people to examine a given topic, get the necessary information from it, and research them to come up with products in their own style. Perhaps the biggest benefit of typing online is that it is easy to publish and the computer will automatically fix any errors. This is a very motivating factor for students and they do not need to write a book, they can improve their writing skills on blogs, online platforms or websites (Raimes & Jerskey, 2011).

Integrative learning: Integrating ICT tools into education is the most important requirement of today and the foremost privilege of the whole world. This is also an important factor in opening new horizons for people and making learning more efficient (Badarne, 2019). By using ICT tools, students have a more active and better chance to advance in education. (Delic-Zimic & Gadzo, 2017). Unlike classical methods, ICT separates theory and practice, making learning and teaching integrated.

Evaluative learning: Using a student-centered ICT provides a lot of useful feedback. Unlike normal writing and memorization methods, ICT provides the opportunity to research with new methods, reach information and compare the information obtained with other sources. Unlike the usual pen-typed texts, the computer-based patch improves the quality of typed texts (Bernhardt, 1989).

3.1 Positive Impact

Integration of ICT tools into education is one of education's most important goals. There are two primary justifications for incorporating ICT into education. Today's students must adopt technology because all jobs depend on it, and technology should be integrated into education to make education and learning permanent and competent (Cervenanska, 2013).

Technology-related books (digital platforms) give students with more benefits than traditional books, as well as a source of information and real-world examples that will capture their interest (Pun, 2013). And he added that, in this approach, not only do students receive knowledge about their educational ability, but also about the culture of the language they wish to study, making the process of learning more enjoyable. Language learning is facilitated and made more pleasurable by classroom activities. In the field of education, ICT has many benefits for students working together and Collaborative learning (CL). Crook and Harrison (2008) listed these advantages as following:

1. It especially helps students who sit in the back of the class, who are shy compared to other students, who have difficulty in expressing themselves, to socialize and become more active. Students also express themselves via video, where they won't be embarrassed by other students. IT has plenty of resources and always updates itself (Borysiuk, 2013).
2. Outside of school hours, social platforms allow students to debate and exchange ideas on any topic.
3. Since online platforms and the internet are always at the hand of students, they do not limit the learning time of students and remove the limits of accessing information.
4. When students post anything online, it creates a sense of ownership in them, and this allows them to concentrate more on their work and complete their tasks more diligently. In this way, educators

share the work done on online platforms with other students, which helps to increase their peer-checking abilities.

3.2 Negative Impact

Although computer technology has a great potential to reform or even transform education, barriers come in the way of achieving success especially with student learning (Keengwe et al., 2008).

3.2.1 Declining Writing Skills

1. Overuse of online chats and shortcuts has seriously reduced students' writing skills. (Raja & Nagasubramani, 2018).
2. Today's kids spend too much time online, which has a negative impact on their ability to put their thoughts on paper.
3. They have trouble pronouncing words, and they have a far harder time learning and mastering the art of handwriting.

3.2.2 Increasing Number of Cheating Cases

Students today are more likely to cheat thanks to the proliferation of digital tools such as smartphones, computers, and graphic tablets. Students not only cheat, but they also say they cheat more than the public realizes (Puccio, 2008). Almost every modern convenience may be found on a modern smartphone. Smartphones have now reached the same level of sophistication as laptops and tablets. And with their Bluetooth and internet features, they are quite tempting for students, and they can readily obtain the information they desire (O'neil, 2003). Phones and calculators with built-in communication functions have made it possible for students to receive copies from faraway relatives and friends right up until the moment of the exam (Jones et al., 2008).

3.2.3 Problem of Focusing

1. Texting on the phones has become very common among students, especially between breaks, while driving and even at night.
2. Students' lack of interest in school, social life, and extracurricular activities can be directly attributed to their excessive online engagement.

4. Advantages

Internet technology has several benefits in many areas of education. Hamidi et al. (2011) stated that internet technology has several benefits in many areas of education. Students benefit from this technology in many areas of their learning, thereby increasing their learning speed and the content and richness of the materials they learn. They also listed the following advantages,

1. Enriching students' free time
2. Collective work of those who are far from each other and
3. Lifelong unlimited education

5. Disadvantages

Contrary to its favorable attributes, ICT may bring certain challenges in lesson planning and delivery. In addition to being pricey, it can distract pupils, lead to incorrect information, and result in information theft, and most critically, it can damage kids' basic learning skills (Borysiuk, 2013). Gaille (2018) listed the disadvantages of ICT as followings,

1. It may cause attention problems in students.
2. It may limit students' face-to-face communication.
3. Increases the incidence of cheating among students.
4. It may cause students to access information from the wrong source.
5. IT might make creation of annual plans more complicated and costly.
6. One of the biggest concerns could be replacing teachers.
7. It may also affect the privacy of people.

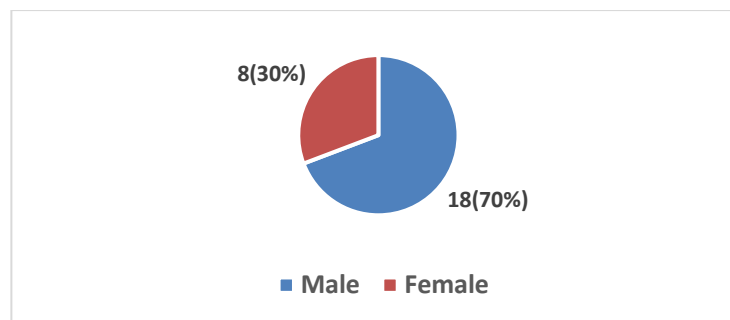
In another research Raja and Nagasubramani (2018) put forward the advantages of ICT as listed,

1. It affects students' imagination and limits their thinking capacity.
2. According to teachers, it is time consuming.
3. Technology is not cheap to acquire.
4. It can cause health problems when used more than necessary.
5. Some students may not have enough budget to access technology

6. Findings

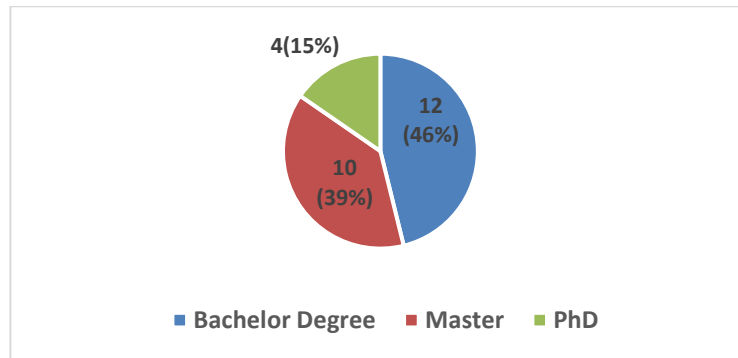
In this study, the positive and negative effects of ICT on education were examined and a questionnaire was applied among educators to reach more precise data. A total of 26 educators from various education levels participated in the survey. The survey was prepared via Google Form and delivered to the participants from their mobile phones.

6.1 Gender Percentage of Participants



As it shown in the chart 8 female and 18 male educators participated to the questionnaire

6.2 Participants' Level of Education



A total of 26 educators from different education levels of which 12 Bachelor (46%), 10 Master (39%) and 4 PhD (15%) degree participated in this survey.

6.3 Participants' Favorite ICT tool

Computer	15
Mobile Phone	9
Tablet	2

It was asked in the questionnaire: 'What is your favorite ICT tool?'

15 of the participants mentioned laptops, 9 said smartphones, and 2 mentioned tablets. These statistics show that among educators, computers are the most popular teaching instrument.

6.4 Survey Statements to Analyze

Survey Statements	Strongly Agree	Agree	Disagree	Strongly Disagree
1. Technology has completely changed my teaching style	12	11	3	0
2. It is very easy for me to access the technology I need in my school	12	13	1	0
3. I can easily integrate technology into my teaching	8	18	0	0
4. I believe that integrating technology into my curriculum will be helpful to increase my students' marks and motivation	14	12	0	0
5. I have enough time to prepare technology-based lessons.	4	18	4	0

When we examine the table above, in the first statement, many of the educators stated that the technology has completely changed their lives. In the second statement, again, many of the participants stated that it is easy to access technology in the educational institutions where they work. If we look at the answers given in question 3, we see that it is difficult among educators to integrate technology into lessons, but on the contrary, in statement 4, educators believe that students will be more successful if they integrate technology into lessons. In the last statement, although the number is small, educators state that they do not have enough time to prepare technology-based lessons.

7. Conclusion

As a result of these investigations, it has been determined that the good effects of technology on education outweigh its negative effects by a greater percentage. According to both the analyzed papers and the findings of the Google Form survey, an education system without ICT cannot adequately meet the needs of the twenty-first century and is not approved by the public. The poll results yielded remarkable and significant findings. The computer is the most popular and widely used instructional instrument among all instructors and is utilized by everyone in education. According to the poll results, there are no educators who have closed their doors to technology, and in fact, the majority of educators seek to include ICT tools into their classes. Educators at all levels who participated in the poll have easy access to the technology and support they require within their respective educational institutions. There is a thought-provoking element that must be stressed in the research's findings, which indicate that educators have time constraints; many of them desire to do ICT-based training, but they report not having enough time to prepare a session. Based on the research and survey findings, technology is an integral aspect of education, regardless of its positive or negative effects.

References

- Alieva, U. G. (2013). usage of modern information and communication technologies in teaching russian as foreign language. *science and world*, 55.
- Altun, M. (2015). The integration of technology into foreign language teaching. *International Journal on New Trends in Education and Their Implications*, 6(1), 29-34.
- Badarne, G. (2019). The effects of ICT integrated learning on motivation and self-efficacy to learn biolog. *Studia Universitatis Moldaviae (Seria Științe ale Educației)*, 125(5), 79-86.
- Bernhardt, S. A., Edwards, P., & Wojahn, P. (1989). Teaching college composition with computers: A program evaluation study. *Written communication*, 6(1), 108-133.
- Bessagnet, M. N., Schlenker, L., & Aiken, R. (2005). Using E-collaboration to improve management education: Three Scenarios. *JISTEM-Journal of Information Systems and Technology Management*, 2, 81-94.
- Borysiuk, A. (2013). Benefits and disadvantages of the use of information technologies in education. *Edukacja-Technika-Informatyka*, 4(2), 110-114. Retrieved from <https://www.ceeol.com/search/article-detail?id=133797>
- Cervenanská, M. (2013). Need and importance of technology in education. *Technologia Vzdělávání*, 21(1), 1.

- Christensen, R. R. (1997). *Effect of technology integration education on the attitudes of teachers and their students*. University of North Texas.
- Crook, C., & Harrison, C. (2008). Web 2.0 technologies for learning at key stages 3 and 4: summary report.
- Daskan, A., & Yildiz, Y. (2020). A simultaneous dual focus on form and meaning to enhance language learning. *International Journal of Social Sciences & Educational Studies*, 7(4), 59-63.
- Delić-Zimić, A., & Gadžo, N. (2017, May). Implementation of ICT in Education. In *International Symposium on Innovative and Interdisciplinary Applications of Advanced Technologies* (pp. 215-222). Springer, Cham.
- Gaille, B. (2018). Advantages and Disadvantages of Technology in Education. Retrieved February 2018 from <https://brandongaille.com/23-advantages-disadvantages-technology-education/>
- Haddad, W. D., & Draxler, A. (2002). Technologies for education: Potential, parameters, and prospects.
- Hamidi, F., Meshkat, M., Rezaee, M., & Jafari, M. (2011). Information technology in education. *Procedia Computer Science*, 3, 369-373.
- Hussain, I., & Safdar, M. (2008). Note for editor: role of information technologies in teaching learning process: perception of the faculty. *Turkish online journal of distance Education*, 9(2), 46-56
- Jaber, W. E. (1997). *A survey of factors which influence teachers' use of computer-based technology* (Doctoral dissertation, Virginia Polytechnic Institute and State University).
- Jones, K. O., Reid, J., & Bartlett, R. (2008). Cyber cheating in an information technology age. *Digithum*, (10).
- Kara, S. (2020). Letting Smartphones at Class Times: Does It Matter in Learning Process?. *International Journal of Social Sciences & Educational Studies*, 7(1), 78-87.
- Kara, S., & Yildiz, Y. (2022). From a commodity to addiction: Are mobile phones valuable commodities or sources of addiction for freshman students? *Amazonia Investiga*, 11(56), 196-209.
- Keengwe, J., Onchwari, G., & Wachira, P. (2008). Computer technology integration and student learning: Barriers and promise. *Journal of science education and technology*, 17(6), 560-565.
- Kelly, M. G., & McAnear, A. (2002). *National Educational Technology Standards for Teachers: Preparing Teachers To Use Technology*. International Society for Technology in Education (ISTE), 480 Charnelton St., Eugene, OR 97401-2626 (ISTE members \$44.95; non-members \$49.95).
- Lazar, S. (2015). The importance of educational technology in teaching. *International Journal of Cognitive Research in Science, Engineering and Education*, 3(1), 111-114.
- Mishra, R. C. (2005). *Management of educational research*. APH Publishing corporation.
- Mondal, S. Importance of technology in education. *Educational Issues and Challenges*, 78.
- O'neil, T. D. (2003). Technology and Academic Integrity, Cheating Goes Cyber. *Information Systems Education Journal*, 1(3), 3-9.
- Puccio, P. (2008). Encouraging Academic Honesty through Active Plagiarism Instruction and Prevention. *Essays from Excellence in Teaching* (Vol 7). Retrieved from the Society for the Teaching of Psychology Web site: <http://teachpsych.org/resources/ebooks/eit2007/eit2007.php>.

- Pun, M. (2013). The use of multimedia technology in English language teaching: A global perspective. *Crossing the border: International journal of interdisciplinary studies*, 1(1), 29-38.
- Raimes, A., & Jerskey, M. (2011). *Keys for writers* (6th ed.). Boston: Wadsworth, Cengage Learning
- Raja, R., & Nagasubramani, P. C. (2018). Impact of modern technology in education. *Journal of Applied and Advanced Research*, 3(1), 33-35.
- Ratheeswari, K. (2018). Information communication technology in education. *Journal of Applied and Advanced research*, 3(1), 45-47.
- Selwyn, N. (2012). *Education in a digital world: Global perspectives on technology and education*. Routledge.
- Shatri, Z. G. (2020). Advantages and disadvantages of using information technology in learning process of students. *Journal of Turkish Science Education*, 17(3), 420-428.
- Tinio, V. L. (2003). *ICT in Education*.
- Yildiz, Y., & Celik, B. (2020). The use of scaffolding techniques in language learning: Extending the level of understanding. *International Journal of Social Sciences & Educational Studies*, 7(3), 148-153.
- Yildiz, Y. (2021). Teaching English as a foreign language to 4th grade students by using technology. *Canadian Journal of Language and Literature Studies*, 1(2), 38-54.
- Yildiz, Y. (2022a). Technological problems that teachers encountered in online education during covid-19 process: Stirling schools sample. *International Journal of Social Sciences & Educational Studies*, 9(1), 255-268.
- Yildiz, Y. (2022b). An examination of the experiences of Turkish ELLs about the Chatbot Apps to learn English. *Canadian Journal of Language and Literature Studies*, 2(5), 32-41.