

The effects of digital tools on English Foreign Learning learners' face-to-face interactions

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Suggested Citation:

Mouas, S. & Ghaskil, A. S. (2023). The effects of digital tools on EFL learners' face-to-face interactions. *Global Journal of Foreign Language Teaching*. 13(2), 109-117. <https://doi.org/10.18844/gjflt.v13i2.8217>

Received from January 23, 2023; revised from March 22, 2023; accepted from May 24, 2023;

Selection and peer review under the responsibility of Assoc Prof. Dr. Jesus Garcia Laborda, Alcala University, Spain.

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Abstract

Presently, technological innovations have altered every facet of our everyday life, particularly those associated with the humanities. The development of new communication devices has transformed the nature of contact from interpersonal to computer-mediated. This study aims to contribute to the debate about the different effects of digital tools on in-person interaction. This study investigates the effects of modern digital communication technology outlets on English as a foreign language (EFL) learners' face-to-face interaction. The researchers opted for a questionnaire and field observation to collect the necessary data to be analyzed. One hundred (100) participants answered the questionnaire. The study found that the abusive use of digital tools has a critical impact on face-to-face interactions and that it affected the human ties between EFL learners, and also their relationships with their families and friends. The outcomes of this investigation allow us to conclude that the constant use of digital outlets can negatively affect face-to-face interactions.

Keywords: Digital tools; EFL learners; interactions; technology.

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1. Introduction

The rapid advance of technology has affected many fields of human lives, including that education (Chong & Reinders, 2020; Samiei & Ebadi, 2021). The introduction of computer-mediated communications like instant messaging, texting, and social networks has mainly changed the nature of the interaction between human beings (Carolan, 2022). Face-to-face communication is decreasing as other forms of communication are replacing it and person-to-person interactions have become the dominant usage of computer networks, transforming them into a social environment where individuals interact (Harasim, 1994, p.15, cited in Gapsiso & Wilson, 2015; Chaves-Yuste & de-la Peña, 2023). New technologies not only changed the way people live but also transformed the whole core of communication (Jiang, Kalyuga & Sweller, 2021).

Years ago, human relationships were built upon solid human interactions, but technology has created a hole between human beings that could not be filled. Social networks have become the new face of interpersonal communication, and people of different ages, especially younger ones, have become obsessed and dependent. College students in Algeria have become more dependent on social networks to gain information, spread the news and communicate with their relatives and friends. So, the internet and technology are fundamentally changing the nature of human communication (Shim, 2007).

Scholars from all over the globe are discussing the positive effects that technology has brought (Zakian et al., 2022; Zou, Xie & Wang, 2023). However, only a few of them are concerned about the adverse effects that technology has generated. Humble studies have been conducted on the effects of digital tools, mainly computer-mediated communications, on face-to-face interactions. Most studies are busy praising the positive effects and neglecting the importance of interpersonal interactions in developing a social life. Digital students are spending most of their time on social networks and maintaining relationships with individuals from various corners of the globe; however, this act has negatively affected their relationships with those near them and their studies.

New technological inventions have proved to be essential in today's communication process. Multiple studies have been conducted to investigate the effects of digital tools on face-to-face interactions. For example, Nie and Ebring (2000) and Kraut et al. (1998) found that constant use of the internet through other computer-mediated communications can make people feel lonelier compared to others and affect their relationships with families and friends. However, concerning the Algerian case, there seem to be few, if not any, studies conducted on this phenomenon, leaving a massive gap in what led students nowadays to become more computer-mediated oriented. Therefore, this research paper tends to take initiation to fill that gap, investigate the issue among EFL learners of Batna 2 University, Algeria, and find any link between the constant use of digital tools and the decrease in face-to-face interactions.

1.1. Literature overview

Before analyzing the effects of digital tools on students' face-to-face interactions, it is essential to highlight some of the previous and current studies on the issue. It is true that the internet and technology, in general, have enhanced our lives, expanded our social networking horizons, developed our minds, and increased our capabilities in different domains (Shin et al., 2022). However, human nature has been deeply affected in this digital realm.

One of the studies conducted regarding digital tools' effects is that of Przybylski and Weinstein (2013) from the University of Essex. They noted that "recent advancements in communication technology have enabled billions of people to connect more easily with people of great distances away. Yet little has been known about how the frequent presence of these devices in social settings influences face-to-face interactions" (Przybylski & Weinstein, 2012, p.1).

In a separate study, the same scientists demonstrated that the presence of intelligent devices in social contexts may affect human interactions. The authors conducted two studies that showed that smart devices hurt “closeness, connections, and conversation quality, especially notable when individuals are engaging in personally meaningful topics” (Drago, 2015, p.2). Researchers found a solid relationship between the low quality of conversation between people and the presence of technology in a regular, natural experiment. They argue that conversations without technology are inferior to those without technological devices (Misra, Cheng, Genivie, & Yuan, 2014).

In addition to the beliefs held above, Brignall and Valey (2005, p. 337) experimented with analyzing the effects of computer-mediated communications on the “cyber youth”, those who grew up in the digital world and who consider technology and the internet as inseparable parts of their lives. They found that the abusive use of digital tools, especially in education, interactions, and even entertainment, has reduced their face-to-face interactions. According to the authors, a decline in face-to-face encounters can result in “significant consequences for their development of social skills and their presentation of self” . Other researchers came up with similar results about how the constant use of the internet can hinder the process of interpersonal communication, Ruben et al. (2021, p. 3) believe that “technology may hinder specific communication skills and that spending time communicating via technology may result in less face-to-face interactions and therefore less practice decoding nonverbal information in whole” .

One alarming study by Shim (2007) argues that teenagers nowadays tend to spend more time surfing the internet than with their families. The author argues that this issue can destroy the essence of human relationships. However, other researchers disagree with the fact that digital tools have adverse effects on face-to-face interactions. Instead, authors like Baym (2015, principal researcher at Microsoft Research) argue that digital communications positively affect face-to-face interactions and enhance human relationships. He added that “the evidence consistently shows that the more you communicate with those people using devices, the more likely you are to communicate with those people face to face” (Adler, 2013, cited by Drago, 2015, p. 2).

The overview of the literature maintains the idea that digital tools harm face-to-face interactions. So based on these reviews, the following questions are of relevance to the study:

1. How can the use of digital tools affect face-to-face interactions?
2. Is the presence of digital tools inhibiting face-to-face interactions?
3. Can the increase in the use of digital tools affect the quality and quantity of face-to-face interactions?

1.2. Purpose of study

This study aims at investigating the effects of the constant use of digital tools on English as foreign language learners' face-to-face interactions at Batna 2 University, Algeria. The study aims to investigate:

1. Whether the constant use of digital tools has decreased English as foreign language learners' face-to-face interactions with their families.
2. Whether the constant use of digital tools has decreased English as foreign language learners' face-to-face interactions with their friends.
3. To shed light on how English as foreign language learners have become obsessed with computer-mediated communications.

2. Materials and Methods

2.1. Ethical statement

This research was conducted in conformity with local ethical requirements for human participant research. The research was authorized by the Faculty of Letters and Foreign Language at Batna 2

University on January 10, 2021. Informed consent was gathered from all participants. Confidentiality was maintained by not requesting names or any other information that would identify the students involved. The subjects were informed of their right to withdraw from the investigation at any time.

2.2. Data collection instrument

The authors used a questionnaire and field observations to analyze the effects of digital tools on face-to-face interactions among English as foreign language learners at Batna 2 University, Algeria. The authors used randomization while sampling, and the questionnaire was administered during regular classes. The questionnaire contained eleven questions about the use of computer-mediated communications, habits, and perceptions concerning face-to-face interactions. These questions were carefully set to determine whether digital tools harm face-to-face interactions (Appendix A).

2.3. Participants

One hundred (100) participants who are English as foreign language learners at Batna 2 University answered the questionnaire.

2.4. Analysis

The field observations were conducted at different intervals, before the beginning of the course, during the warm-up, and then during the course break. Also, observations were made after the course while they were waiting for the other course's beginning and throughout the group projects. Multiple reactions were recorded between students and their peers and between students and their technological devices. Some were surfing the net; others were texting; some isolated themselves, and the remaining chitchatted with one another (Appendix B).

3. Results

3.1. Questionnaire Results

The results of the questionnaire showed that all participants owned a smart device (cellphone, tablet, laptop, etc.) and that 70 % of them used these devices for more than four hours a day, and others (20 %) admitted that they use them for more than eight hours a day. All participants said they take their smart devices with them whenever they leave their houses. Furthermore, 75 % of participants admitted that they always use their smart devices, even in the presence of their families and friends. On the other hand, only 20 % of participants said that they never use their smart devices in the presence of other people. Moreover, 60 % of respondents said they communicate with family and friends using digital tools, and only 15 % admitted the opposite.

3.2. Field observation results

Field observations' results were much similar to those of the questionnaire. So, while the researcher conducted some field observations regarding the students' habits and use of digital tools, the researcher found that 72 out of the 100 students were holding their phones to either text or surf the net. Four students were observed talking on the phone. Only eight were not using technology and were talking with their peers. In addition to those field observations, the researcher wanted to understand students' perceptions of using digital tools while being with others. The question, "It annoys me when my family members or friends use their smart devices in my presence," 78 % of the respondents strongly agreed with this statement. Only 5 % disagreed, leaving the remaining respondents to neither agree nor disagree.

3.3. Numerical Data Results

When participants were asked whether the use of digital tools can negatively affect face-to-face interactions, most of them (90 %) strongly agreed, and only 8% disagreed. 2% of the participants neither agreed nor disagreed. In a question about the decrease in the quality of face-to-face conversations due to the constant use of digital tools, 90% believed that the quality of interaction had been affected; however, 70% argued that it was not. The remaining participants were left neutral.

Insightful responses were recorded when the researcher asked participants about their points of view concerning the effects of digital tools on face-to-face interactions. One student believed that "the presence of digital tools affected her relationship with her friends and that she hated that her friends used their phones in her presence instead of talking to her". Another student held the same view but added, "The use of digital tools is only beneficial when trying to share information with other peers or just to have fun while watching a video or taking selfies". The rest of the students agreed that the effect of digital tools on face-to-face interactions depends on their use and that moderate use is acceptable, but abuse is harmful and destructive.

4. Discussion

In an open discussion with participants about the use of digital tools, the majority agreed that the use of digital tools and technology, in general, negatively affects human relationships and that the regular use of computer-mediated communications decreases their abilities to communicate socially with others. For example, one student stated that "people nowadays lost the desire of face-to-face communication due to their reliance on digital tools to interact. Another student noted that "digital tools enhance the stuff they shared online, but affected what they share face to face". Other students argued that using technology, in general, are fine, but to use it in the presence of others is disrespectful".

They further added that many people nowadays lack the etiquette of using technology and that it is polite to avoid it and pay more attention when interacting with others. What is more interesting is that some participants said that they try hard and put extra effort not to use technology while being with their families and friends because they have become addicted to it. All in all, most respondents appeared to be aware of the negative effect that technology has brought; they all agreed that using digital tools negatively affects face-to-face interactions.

5. Conclusion

Based on the questionnaire results and the field observations, the studies' analysis showed that the constant use of digital tools negatively affects face-to-face interactions. Students have become more dependent on technology to communicate with others rather than face-to-face interactions. Most participants agreed that these new digital tools have affected the quality of interpersonal communications and that many people are bothered and uncomfortable when others use smart devices in their presence.

Moreover, most participants used digital tools to interact with others rather than face-to-face, indicating that technology use has negatively affected interpersonal communications in quality and quantity. Researchers from all over the globe are worried about the future of face-to-face interactions in a time of technology dominance. Parents are afraid that they will come to a time when they will no longer communicate with their digital children interpersonally and that technology will tear their family bonds apart. Society is in danger because new technologies may lead to unexpected results that can threaten communities' safety and stability. Technology has penetrated our systems and could be changing our human nature forever.

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Appendix A: The Questionnaire and Responses

Specify gender.

- a. Male (35)
- b. Female (65)

Do you have a smart device? (Laptop, tablet, smartphone,)

- a. Yes (100)
- b. No (00)

How frequently do you use your smart device?

- a. 0-2 hours (00)
- b. 2-4 hours (2)
- c. 4-6 hours (70)
- d. 6-8 hours (8)
- e. More than 8 hours (20)

Do you take your smart device with you when you leave your house?

- a. All the time (100)
- b. Sometimes (00)
- c. Rarely (00)
- d. Never (00)

Do you use your smart device while being with your family or friends?

- a. Always (75)
- b. Sometimes (5)
- c. Rarely (20)
- d. Never (00)

It annoys me when my family members or friends use their smart devices in my presence.

- a. Strongly agree (78)
- b. Disagree (5)
- c. Strongly disagree (00)
- d. Neither agree nor disagree (10)

I usually use technology to communicate with my family and friends rather than doing it personally.

- a. Strongly agree (60)
- b. Agree (18)
- c. Strongly disagree (3)
- d. Neither agree nor disagree (4)

I believe that computer-mediated communications are negatively affecting face-to-face interactions.

- a. Strongly agree (90)
- b. Agree (00)
- c. Disagree (8)
- d. Neither agree nor disagree (2)

I believe that computer-mediated communications have affected the quality of my face-to-face interactions.

- a. Strongly agree (90)
- b. Agree (2)

- c. Strongly disagree (00)
- d. Disagree (7)
- e. Neither agree nor disagree (1)

What can you say concerning the effects of computer-mediated communications on face-to-face interactions?

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Appendix B: Field Observations

Different intervals Engagement with technology	Before the start of the course	During the break from the course	After the course	Throughout group projects	Total	Total %
Texting / Surfing the net	3	57	8	4	72	72 %
Holding phones (while being alone)	0	3	1	0	4	4 %
No technology use (while being with others)	0	5	2	1	8	8 %
Using technology (while being with others)	0	3	3	6	12	12 %
Not using any of the smart devices (while being alone)	0	1	3	0	4	4 %
Total	0	69	17	11	100	100 %

- Observations before the starting of the course were held on the 2nd of February, 2021 from 9:00 AM to 9:30 Am.
- Observations during the break of the course were held on the 2nd of February, 2021 from 10:30 AM to 11:00 AM.
- Observations after the course were held on the 2nd of February, 2021 from 12:30 AM to 1:00 PM.
 - Observations of the group projects were held on the 2nd of February, 2021 from 1:00 PM to 2:00 PM.