Investigating the effectiveness of blended learning in English foreign language classroom

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Abstract

The COVID-19 pandemic has forced educational institutions worldwide to explore new learning modes, including blended learning, which combines face-to-face instruction with online learning. Despite the potential benefits of blended learning, its effectiveness is influenced by several factors that can pose challenges, particularly in terms of student outcomes. This study aimed to investigate the attitudes of third-year English students toward blended learning. A total of 45 students completed an online questionnaire, and three teachers participated in interviews. Results indicated that students had mixed attitudes towards blended learning and generally preferred face-to-face instruction over online learning. Additionally, the study found that while some teachers expressed negative attitudes toward blended learning, others recognized its potential effectiveness and importance. These results highlight the need for educators to consider the challenges and advantages of blended learning and provide appropriate support and resources to help students adapt to this new mode of learning.

Keywords: Attitude; blended Learning; Covid-19; E-learning; face-to-face instruction; learning English.

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1. Introduction

Blended learning, also known as hybrid learning, is a teaching method that combines face-to-face instruction with online or e-learning (Simonova, 2019; He & Liu, 2022). The approach has recently gained popularity, mainly due to technological advancements and the need for flexibility in learning (Freiermuth & Zarrinabadi, 2020). With the global outbreak of the COVID-19 pandemic, blended learning has become a necessity for educational institutions worldwide, including Algeria.

In Algeria, blended learning is a relatively new concept in higher education. Historically, face-to-face instruction has been the predominant teaching method used in Algerian universities, with limited e-learning or online instruction. However, the pandemic has necessitated a shift towards blended learning, leading to a need to assess students' attitudes toward this new learning environment (Diningrat, Setyosari, Ulfa & Widiati, 2023). Assessing students' attitudes toward blended learning is essential, providing insight into their readiness to adapt to this new learning approach (Zhang, 2020). Understanding students' attitudes towards blended learning can help identify areas where students may require additional support and provide valuable feedback for educators to enhance the delivery of blended learning.

Although blended learning has several advantages, it is not commonly used in Algeria. However, due to the pandemic, blended learning has become necessary in Algerian universities. For many Algerian students, blended learning is considered a new and unfamiliar learning environment, which makes it essential to assess their attitudes toward it. The success or failure of blended learning in Algerian universities can be determined by students' attitudes toward this new learning environment. Based on this idea, the following research questions were formulated:

- What are the attitudes of Algerian university students toward blended learning?
- Which component of blended learning do students prefer, face-to-face instruction or e-learning?

To answer these research questions, two hypotheses were proposed:

H1: Algerian university students have a positive attitude towards blended learning.

H2: Algerian university students prefer face-to-face instruction over e-learning.

This study is significant as it provides insight into the effectiveness of blended learning in the context of Algerian universities. The study results can guide educators in developing strategies to enhance the delivery of blended learning and ensure that students receive a quality education, even during times of crisis. Ultimately, this study can contribute to developing blended learning as an effective teaching method in Algerian universities.

1.1. Literature Review
1.1.1. Blended Learning

There is no general agreement among researchers on the term blended learning. However, Osguthorpe and Graham (2003) define blended learning as "Blended learning combines face-to-face with distance delivery systems.… The internet is involved, but it's more than showing a page from a website on the classroom screen. And it all comes back to teaching methodologies— pedagogies that change according to the unique needs of learners. Those who use blended learning environments are trying to maximize the benefits of both face-to-face and online methods— using the web for what it does best, and using class time for what it does best." (p. 227)

Osguthorpe and Graham (2003) define blended learning as a combination of face-to-face instruction and distance delivery systems that involve the Internet. They note, however, that blended learning is not simply showing a website page on a classroom screen. Instead, blended learning involves using the internet and other distance delivery systems to enhance face-to-face instruction

and provide learners with opportunities to engage with course materials and activities more flexibly and personalized manner.

Furthermore, Osguthorpe and Graham (2003) stress the importance of teaching methodologies tailored to learners' unique needs in blended learning environments. Blended learning should not simply be a replication of traditional face-to-face or online instruction but rather a deliberate combination of the two that takes advantage of the strengths of each. The authors argue that by using the internet for what it does best and using class time for what it does best, instructors can create blended learning environments that are both effective and engaging for learners.

In summary, Osguthorpe and Graham's definition of blended learning emphasize the importance of combining face-to-face and online instruction in a purposeful and pedagogically sound way and tailoring teaching methodologies to meet the unique needs of learners. Their definition suggests that blended learning should be an intentional approach to teaching and learning that takes advantage of the strengths of face-to-face and online instruction rather than simply a hybrid of the two.

Picciano et al. (2021) recently provided a contemporary definition of blended learning, highlighting the complementary nature of in-person and online learning activities and emphasizing the flexibility and customization this approach can offer. Picciano et al. (2021) define blended learning as a combination of in-person and online learning activities designed to maximize both approaches' benefits. Blended learning allows for flexible and customized learning experiences tailored to meet individual learners' unique needs. This approach is based on the idea that different instructional methods can be combined to optimize student learning and engagement. By incorporating the strengths of face-to-face and online learning, blended learning can provide a more comprehensive and practical approach to education.

1.1.2. *Advantages of blended learning*

Blended learning has been widely recognized as a promising approach to teaching and learning, with numerous benefits for students. By combining face-to-face instruction with online learning resources and tools, blended learning provides students with a more flexible and personalized learning experience that can be tailored to their individual needs and preferences (Garrison & Vaughan, 2007).

This can help to promote engagement and motivation, as students are more likely to feel invested in their learning and take an active role in the process (Lage et al., 2000). Blended learning can also provide students with a broader range of learning resources and opportunities, including multimedia content, interactive activities, and online collaboration tools, which can help to deepen their understanding and improve their performance (Graham et al., 2013).

Additionally, the flexibility of blended learning can make it more accessible and inclusive for students with diverse backgrounds and learning needs, as it allows for more individualized and differentiated instruction (Dziuban et al., 2019). Overall, the benefits of blended learning for student learning and engagement make it a practical approach to consider in modern education.

According to Graham (2006), blended learning provides flexibility as students can decrease their physical meeting time, space needs, and travel and educational costs. In addition, the course materials are available all the time while communication between teachers and learners becomes unlimited and not constrained by the timetable. Moreover, students become autonomous as they take control of what to learn. Finally, students can use their digital tools, such as smartphones and computers, educationally instead of playing video games or chatting online.

However, despite the advantages of blended learning, its adoption presents several challenges, particularly in the face of the COVID-19 pandemic. These challenges include the need for

faculty training, appropriate technology, and the development of practical pedagogical approaches that optimize the benefits of both face-to-face and online instruction.

1.1.3. Implementation of blended learning

The implementation of blended learning requires careful planning, design, and delivery. The design and delivery of blended learning involve a shift in the traditional teaching and learning model from the teacher-centered approach to the student-centered approach, where the students play an active role in the learning process (Shi and Morrow, 2006).

The practical implementation of blended learning depends on the effective design of the course content and delivery and appropriate technology to support the learning process. Graham (2006) stated that successful blended learning programs require flexibility as students can decrease their physical meeting time, space needs, and travel and educational costs.

In their study, Graham et al. (2013) stated that successful blended learning programs incorporate both synchronous and asynchronous learning activities and consider the learners' needs and preferences. Additionally, it is essential to provide training and support to instructors and students to ensure they are comfortable and confident with the technology used in blended learning. A study by McGee and Reis (2012) suggested that instructors must be trained to design and deliver practical blended learning courses that meet the diverse needs of the students. Similarly, students need to be trained to use the technology effectively and be given access to technical support when needed.

In summary, the successful implementation of blended learning requires careful planning, design, and delivery of the course content, appropriate use of technology, and training and support for both instructors and students. By incorporating these elements, higher education institutions can ensure that their blended learning programs are effective and successful in meeting the needs of their students.

1.1.4. Students' attitude towards blended learning

Recent research has focused on investigating student attitudes toward blended learning. For example, Mali and Lim (2021) found that students had a more positive attitude toward blended learning during the Covid-19 pandemic. However, when Covid-19 was not a concern, students preferred face-to-face learning over blended learning. The study also revealed that students perceived face-to-face learning to be superior to BL due to limitations in BL's ability to facilitate interactions with the lecturer, group work, peer engagement, class involvement, and the ability to ask questions about technical information.

Similarly, a study by Bougoffa and Chelli (2022) found that students held positive attitudes towards blended learning, particularly in terms of its potential for improving their language skills, especially in vocabulary retention. Additionally, enhancing communication competence and motivation were identified as advantages of blended learning. Internet connectivity was rated as the highest limitation.

However, According to Mali and Lim (2021), limitations to blended learning include reduced interactions with the lecturer, limited group work, reduced peer engagement, lower class involvement, and decreased ability to ask questions about technical information. Moreover, the authors note that students perceive face-to-face learning to be superior to blended learning because social elements that are expected in a F2F environment may not be embedded into netiquette frameworks (Mali & Lim, 2021).

These findings suggest that while blended learning can benefit student learning, it is essential to consider students' perspectives and experiences when designing and implementing blended learning programs.

2.   Materials and Methods

This study used a mixed methods design to investigate the effectiveness of blended learning in EFL classrooms. The quantitative component involved collecting data from third-year students of English using an online closed-form questionnaire. The qualitative component involved conducting interviews with their teachers to gain additional insights into the topic.

2.1. Participants

A total of 45 third-year English students at the University of Ain Temouchent completed the online questionnaire. Additionally, three teachers with experience with blended learning in EFL classrooms were recruited to participate in the interviews.

2.2. Data collection instruments

The online questionnaire used a Google Form and was composed of two parts. The first part, which contained ten items, sought to measure students' attitudes towards blended learning using a five-point Likert scale (5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, 1 = strongly disagree). The second part aimed to uncover issues related to face-to-face learning and e-learning.

The interviews with the teachers were conducted via Google Meet and lasted between 10-15 minutes. The interviews used a semi-structured format, allowing for closed-ended and open-ended questions. The questions focused on the teachers' experiences with blended learning in EFL classrooms, their perceptions of its effectiveness, and any challenges they encountered.

2.3. Procedure

The online closed-form questionnaire was used to collect data from the participants. The questionnaire was hosted on the Google Forms platform, and the link was sent to participants' email accounts through Gmail. Participants were given one week to respond to the questionnaire. Data collected from the questionnaire was downloaded in a CSV format for analysis.

2.4. Data Analysis

The quantitative data collected through the online questionnaire were analyzed using the Statistical Package for the Social Sciences (SPSS) version 25. Descriptive statistics, such as frequency distributions and percentages, were used to analyze the students' responses to the closed-ended questions in the questionnaire.

The qualitative data collected through the semi-structured interviews with the teachers were analyzed thematically. The interviews were recorded, transcribed, and analyzed to identify common themes and patterns. The themes were then organized into categories and subcategories, and the findings were presented in narrative form.

The quantitative and qualitative data results were integrated to provide a comprehensive understanding of the effectiveness of blended learning in EFL classrooms. The findings from the quantitative and qualitative data analyses were compared and contrasted to identify commonalities and differences. The results were then presented in a cohesive and integrated manner.

2.5. Ethical considerations

The study was conducted with the approval of the University of Ain Temouchent's ethics committee. Informed consent was obtained from all participants before they completed the online questionnaire. Participants were informed that their participation was voluntary, and they had the right to withdraw from the study at any time without penalty. Confidentiality was maintained by anonymizing the participants' responses in the analysis and reporting of the results.

3. Results

The first section of the online questionnaire was addressed to participants to seek their attitudes toward blended learning. The results are shown in table 1:

Table 1
Descriptive analysis of students' attitude towards blended learning

	N	Minimum	Maximum	Mean	Standard Deviation
The information obtained in more than one way with blended learning	45	2	4	2,44	,841
Blended learning improves my learning skills	45	1	4	1,56	,967
blended learning reinforces interaction between teacher and students	45	1	4	1,27	,863
blended learning provides me enough time to perform tasks	45	2	4	3,02	1,011
A combination of online class learning and traditional in-class learning is more effective than using one way of delivering information	45	1	4	2,42	1,270
I enjoy mixing online learning with face-to-face learning	45	1	4	2,16	,976
I prefer face-to-face learning to online learning	45	3	5	4,62	,576
face to face learning is enough to obtain information	45	1	5	3,42	1,574
(Total)	45				

Note: 1 strongly disagree, 2 disagree, 3 neutral, 4 agree, 5 strongly agree

The five-point Likert scale is considered an interval scale. Hence, from (1 to 1.8), this means strongly disagree. From (1.81 to 2.60), this means to disagree. From (2.61 to 3.40), this means neutral. Moreover, from (3.41-4.20), this means to agree, and finally, from (4.21 to 5) means strongly agree.

According to the survey conducted among 45 students, the mean score for the statement "The information obtained by more than one way with blended learning" was (M = 2.44), indicating that participants disagreed with this statement.

The mean score for the statement "Blended learning improves my learning skills" was (M = 1.56), indicating that participants strongly disagreed with this statement. Similarly, the mean score for the statement "Blended learning reinforces interaction between teacher and students" was (M = 1.27), indicating that participants strongly disagreed with this statement.

The statement "blended learning provides me enough time for performing tasks" had a mean score of (M = 2.02), indicating that participants disagreed with this statement.

Furthermore, the statement "A combination of online class learning and traditional in-class learning is more effective than using one way of delivering information" had a mean score of (M = 2.42), indicating that participants disagreed with this statement. The statement "I enjoy mixing online learning with face-to-face learning" had a mean score of (M = 2.16), indicating that participants disagreed with this statement.

In contrast, the mean score for the statement "I prefer face-to-face learning to online learning" was (M = 4.62), indicating that participants preferred face-to-face learning. Finally, the statement "face-to-face learning is enough to obtain information" had a mean score of (M = 3.42), indicating that participants agreed with this statement.

In the following section of the questionnaire, students were asked about the most challenging issue encountered during face-to-face instructions. Results are shown in table 2:

Table 2
The issues encountered during face-to-face instruction

	Frequency	Percentage
Lack of motivation	7	15,6
The allocated time devoted to a lecture	4	8,9
The fast pace of teachers moves through lectures	26	57,8
The assessment method	5	11,1
Time management	3	6,7
Total	45	100,0

In addition to the previous results, the researchers also investigated the issues encountered by students during face-to-face instruction. Out of the 45 participants, 57.8% reported that the fast pace of teachers moving through lectures was a significant issue. Lack of motivation was another issue, with 15.6% of participants reporting it as a problem.

The allocated time devoted to a lecture was perceived as an issue by 8.9% of participants. In addition, 11.1% of students stated that the assessment method was problematic, and 6.7% of participants reported that time management was an issue during face-to-face instruction.

In the last question of the questionnaire, students were asked about the most challenging issue encountered during online learning. Results are shown in table 3:

Table 3
The issues encountered during online learning.

	Frequency	Percentage
lack of materials	4	8,9
poor quality of the internet	6	13,3
adaptability to online learning as a new platform	19	42,2
difficulty in accessing Moodle	16	35,6
Total	45	100,0

According to the responses of the 45 participants, the issues encountered during online learning were examined, and the results are as follows: 8.9% of the students reported a lack of materials as an issue, while 13.3% of the participants reported poor quality of the internet as a problem. Moreover, 42.2% of the students reported difficulty adapting to online learning as a new platform, and 35.6% of the participants reported difficulty accessing Moodle.

These findings suggest that the adaptability to online learning as a new platform is the most significant issue students face during online learning, followed by difficulty accessing Moodle. However, a smaller proportion of participants reported issues related to the lack of materials and the poor quality of the internet.

A total of three teachers were interviewed to provide their opinions on blended learning in Algerian universities.

Teacher 1 expressed a negative attitude towards blended learning due to personal issues such as anxiety and past technical difficulties and believed that students prefer face-to-face instruction.

Teacher 2 had a fair experience with online learning and faced occasional technical and personal issues such as anxiety, but believed that blended learning could be practical and essential while recognizing that some students still prefer face-to-face instruction.

Teacher 3 had a positive attitude towards blended learning and had a good experience with online learning, facing fewer technical issues due to his computer training and having less anxiety. While he believed that students still prefer face-to-face instruction due to the novelty of online learning caused by the pandemic of COVID-19, he also believed that blended learning could be beneficial in the long run.

The teachers identified various challenges and advantages associated with blended learning. All teachers recognized that online learning could be challenging for students due to technical difficulties, anxiety, and lack of engagement. They also noted that student resistance to change, attention and focus, and time management could be seen as issues with blended learning.

However, all teachers agreed that blended learning offers a unique opportunity to provide information in more than one way, reinforce teacher-student interactions, and allow for flexibility in task performance.

Furthermore, the teachers had differing opinions on the equivalence of blended learning and traditional classroom in terms of student outcomes. Teacher 1 believed that traditional face-to-face instruction is more effective for student learning outcomes, while Teacher 2 recognized the potential effectiveness of blended learning but acknowledged that some students still prefer traditional face-to-face instruction.

Teacher 3 believed that blended learning could be beneficial in the long run but recognized that students still prefer face-to-face instruction due to the pandemic.

Overall, the responses suggest that blended learning offers unique advantages and challenges for students and teachers and that attitudes towards it can vary among educators and students.

The results suggest that various factors, including prior experience with online learning, interest in the lecture topic, and level of comfort with the learning environment, influence student outcomes, engagement, and acceptance of blended learning.

4. Discussion

The analysis of the survey results and teacher interviews showed mixed attitudes toward blended learning among Algerian university students. The survey results indicated that students generally disagreed with the statements that blended learning improved their learning skills, provided enough time for performing tasks, and reinforced interaction between teachers and students.

However, they agreed with the statement that face-to-face learning is enough to obtain information. The results of the teacher interviews revealed that attitudes towards blended learning varied among educators and students, with some expressing positive attitudes and others expressing negative attitudes due to technical issues and anxiety. Nevertheless, all teachers agreed that blended learning offers a unique opportunity to provide information in more than one way, reinforce teacher-student interactions, and allow for flexibility in task performance.

Therefore, the first hypothesis that Algerian university students have a positive attitude towards blended learning is refuted, as the survey results and teacher interviews suggest mixed attitudes towards blended learning among students. The result of this study is incompatible with the study of Allegue (2019), which revealed that students of Guelma University have a positive attitude towards Blended learning. This result is also incompatible with the study of Kadri (2018), which found that learners' motivation increased considerably after the blended learning experiment.

The survey results showed that students preferred face-to-face instruction over blended learning and online learning, as they disagreed with the statement that blended learning was more

effective than one way of delivering information and strongly disagreed with the statement that they enjoyed mixing online learning with face-to-face learning.

In addition, the survey results indicated that students preferred face-to-face learning when asked directly, as the mean for the statement "I prefer face-to-face learning" was 4.62. Furthermore, the teacher interviews revealed that some students still prefer traditional face-to-face instruction, while others recognized the potential effectiveness of blended learning. Therefore, the second hypothesis that Algerian university students prefer face-to-face instruction over e-learning is confirmed, as the survey results and teacher interviews suggest that students generally prefer face-to-face instruction over blended learning and online learning. This result is compatible with the results of a study that revealed that university students preferred face-to-face instruction to online learning (Gierdowski, 2019)

5. Conclusion

The current circumstances in Algeria, including the ongoing COVID-19 pandemic and the need for remote learning, highlight the potential for blended learning to become a more general approach to education in the future. While some students and teachers still prefer face-to-face instruction, the challenges and advantages of blended learning suggest that it could become an essential complement to traditional classroom instruction.

However, there are also challenges to implementing blended learning in Algeria, including issues related to infrastructure, technology, and training for both students and teachers.

Despite the efforts of the Algerian government, there is a need to invest in resources and infrastructure to support blended learning and to provide training and support for educators and students to help them adapt to this new mode of learning. By addressing these challenges and leveraging the potential benefits of blended learning, Algeria could create a more inclusive, accessible, and effective higher education system for its students.

Based on the study's results, it is recommended that Algerian university students be provided with proper training and support to improve their attitude toward blended learning. This can be achieved by providing workshops or training sessions focusing on the advantages and benefits of blended learning, such as the flexibility it offers and the ability to interact with the instructor and peers in various ways. These workshops can also address the common challenges and issues encountered during blended learning, such as technical difficulties and time management.

Additionally, instructors can provide opportunities for students to collaborate and engage in group work. By offering training and support, Algerian universities can help students overcome their resistance to blended learning and develop a positive attitude towards it. It is also recommended that Algerian universities take steps to improve the quality of the online learning experience for students. This can be achieved by providing high-speed and reliable internet, adequate learning resources, and user-friendly online platforms accessible to all students.

Instructors can also provide regular feedback and support to students to ensure that they remain engaged and motivated throughout the online learning process. Furthermore, instructors can offer a variety of assessment methods that are appropriate for online learning, such as online quizzes and assignments. By improving the quality of the online learning experience, Algerian universities can increase student satisfaction and encourage students to embrace blended learning.

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