



## Evaluating the blackboard technology's influence on English for specific purpose education: Using technology to teach English

Majed Abu Dabeel \*

Department of English Language and Literature, College of Languages and Translation, Imam Mohammad Ibn Saud Islamic University, Riyadh, Saudi Arabia

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### ABSTRACT

This study examines the impact of blackboard technology on the learning of English for Specific Purposes (ESP) among students and teachers in public universities in Saudi Arabia. Blackboard is a popular online platform for teaching ESP because it is easy to use and accessible and provides affordable e-learning with interactive activities and a variety of educational materials. The research uses both qualitative and quantitative methods to examine how students and teachers view blackboard. A 5-point scale survey was administered to 114 students (60 males and 54 females) to determine how often they use blackboard for ESP instruction. In addition, interviews were conducted with six male and five female teachers to evaluate blackboard's effectiveness in academics and its influence on students' learning and memory. The study focused on four main areas: how often blackboard is used by different age groups and genders, students' opinions about blackboard, and teachers' opinions about using blackboard for discussion. The results show that ESP students enjoy using blackboard discussions and find them somewhat engaging and motivating. Blackboard helps with learning and communication both in and out of the classroom. The study also found that students prefer to learn in both English and their native language, while teachers believe that using the native language could slow down English learning. This research highlights the positive effects of blackboard on ESP learning, overcoming age differences, and shows its value in education, suggesting it as a useful tool for educational institutions and policymakers to improve education and student-teacher interactions. It also points to the need for the right technological tools to meet students' needs.

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### 1. Introduction

Given its defined emphasis on materials evaluation, ongoing course, and methodology, technology has played an essential role in the teaching of ESP and its application to ESP pedagogy (Albion, 1999). To increase student motivation and engagement, introducing technology into ESP classrooms facilitated the use of multimedia, internet resources, and other tools by instructors (Change, 2008). In addition, the Internet has substantially impacted language learning by providing students and teachers with limitless opportunities to interact via e-mails and blogs (Lesiak-Bielawska, 2015).

English for Specific Purposes (ESP) is a method of teaching and learning English as a second language customized to meet the needs of the target learners (Change, 2008; Asmal, 2018). ESP is a broad term that includes a variety of teaching contexts, such as English for Academic Purposes (EAP), English for Occupational Purposes (EOP), and English for Professional Purposes (EPP).

Language study for specific or general purposes dates back in many centuries ago. Early phases of ESP development concentrated primarily on English for Science and Technology (EST) (Coates, 2007). During the 20th century, numerous technologies advanced ESP. Computers have been incorporated into language instruction since 1960 (Coates, 2007). The rise of the Internet in the 20th century profoundly affected the formation of foreign language classrooms, and modern technological advancements such as blackboard technology have provided various tools for language acquisition and a communicative approach (Al-Khresheh, 2021). These e-learning technologies had become

widespread worldwide, particularly during COVID-19, when institutional courses were transferred to blend learning partially and then entirely online later (DeNeui and Dodge, 2006). Instructors and students in all Saudi Arabian primary and secondary schools now use blended learning and virtual learning environments to deliver e-courses, particularly in foreign languages (Almelhi, 2021). These learning approaches and technological teaching environments have been used in previous years; therefore, there is a pressing need to investigate the impact of these technologies on ESP learning and to solicit the opinions of learners regarding their efficacy to determine the various perceptions, views, and obstacles encountered during the implementation of this strategy (Al-Khresheh, 2021).

In ESP learning, the introduction of e-learning systems such as blackboard has revolutionized the quality of instruction and increased the amount of information retained by students (Albion and Ertmer, 2002). It enables tutors and students to interact and communicate effectively through discussions, podcasts, and chats by establishing a virtual learning environment (Alamer, 2020). Blackboard technology has unquestionably enhanced the traditional teaching system. It plays a significant role in transforming tacit knowledge into explicit knowledge, thereby reducing the risk of information loss due to memory constraints (Alamer, 2020). Additionally, it contributes to efficient knowledge management by reducing the cost of knowledge (Albion and Ertmer, 2002). Despite the numerous benefits of blackboard technology for teachers and students, the impact of this new technology on ESP learning is still being evaluated, which requires answers to several questions (Albion and Ertmer, 2002).

As e-learning platforms and educational technology flourish, there is an urgent need for higher education institutions to utilize these technological approaches in their teaching and delivery of courses for better interaction with the learners and to make them more personalized and incentivized, as well as to integrate them into the pro-learning approaches to learning and teaching (Almekhlafy, 2020). Numerous researchers have noted the difficulty in locating authentic sources for oral or written speech by expert native speakers. However, online applications, such as YouTube and other e-learning platforms, such as blackboard, have revolutionized the system by providing professional teaching videos and materials by expert native speakers (Almekhlafy, 2020). Saudi faculty in higher education institutions are adopting a more digital approach to teaching in response to the ongoing technological revolution to meet students' individualized and personalized needs in this digital age (Horsburgh, 1967).

In addition, for educators to effectively and appropriately teach foreign languages, they need to create a more conducive environment for learning, arousing the learners' motivation and interest for

enhanced foreign language study both in class and at home. This is necessary for the effective and appropriate teaching of foreign languages (Horsburgh, 1967). As a direct consequence of the COVID-19 pandemic, which reduced face-to-face interactions, the use of these e-learning platforms has evolved into an unavoidable necessity (Horsburgh, 1967).

Consequently, the purpose of this study is to assess and evaluate the impact and efficacy of blackboard technology in ESP learning in terms of establishing rapport between instructor and pupil, leading an interactive session, facilitating student comprehension and active engagement, boosting learner motivation, and establishing a healthy and interactive instructor-student communication. It also seeks to assess students' attitudes toward using blackboard technology in ESP education. Therefore, the following are the research questions:

- 1) What effect does using blackboard technology have on ESP learning?
- 2) How do students feel about the use of blackboard technology in the ESP learning process?
- 3) What percentage of male and female students and students of various ages use blackboard?

## 2. Literature review

The demand for e-learning and e-teaching technology integration in the teaching and learning of foreign languages has increased dramatically (Drewelow, 2013). Teachers must integrate e-learning technologies into their course delivery to assess the efficacy of e-integration learning in foreign language learning and report any difficulties that may arise in establishing these new environments (Ertmer, 2005). In this regard, Alamer (2020) said that incorporating blackboard technology led to establishing healthy interaction and rapport between instructors and students and promoting students' active engagement (Ertmer, 2005). In contrast, the activities for enhancing students' comprehension were the least effective in promoting students' comprehension (Ertmer et al., 2006). In addition, student satisfaction with the effectiveness of online learning and instruction was high. They found ESP instruction using blackboard technology to be more engaging and motivating, allowing them to catch up with their classes on time (Almelhi, 2021).

Findings of the previous research indicate that the impact of technology use in ESP classrooms is limited, while others emphasize the positive effects of technology use (Ertmer et al., 2006). More studies also demonstrate that the choice of appropriate technology in ESP classrooms depends on various factors. The decision depends on the cost-effectiveness, the language employed, and the social relationships associated with the technology. By incorporating IT, the ESP has progressed past the traditional ESP (Ertmer and Ottenbreit-Leftwich, 2010). For the incorporation of IT in ESP, ESP

practitioners and other teachers must collaborate. Thus, language teachers must adopt various skills to achieve this milestone. Therefore, the success or failure of technology such as blackboard in ESP classrooms depends significantly more on the teacher training level than the technology itself (Glaser et al., 1968).

According to Asmali (2018), clickers in ESP classrooms have been shown to improve performance, with males having a more favorable attitude toward their use, thus demonstrating the significance of technology in ESP learning (Ertmer and Ottenbreit-Leftwich, 2010). ESP teaching is a non-English subfield of graduate education that enables EFL students to acquire language and content proficiency (El Messaoudi, 2021). The use of the blackboard platform for the delivery of online ESP courses has been shown to improve the content knowledge of postgraduate students. Utilizing blackboard for ESP instruction enhances student interaction and active engagement, boosting academic performance. Blackboard effectively allows the students to learn and practice more, enhancing their academic achievement (El Messaoudi, 2021; Saed et al., 2022).

Utilizing technologies such as blackboard and Edmodo to deliver online ESP courses has a significant impact (Hauck and Stickler, 2006). These technologies, which are relatively simple and accessible to instructors and students, provide a platform for students to interact and collaborate effectively. El Messaoudi (2021) stated that the online teaching method should not only be considered an alternative to physical classes. However, it should be implemented in reality owing to its various benefits, including reducing travel and overall education costs and providing training according to self-reliant educational practices (Hauck and Stickler, 2006). Numerous institutions have integrated blackboard into their learning management systems (LMS) due to its usability and accessibility (Landis, 2008). Online technology, including online education and instruction, has become ingrained in our daily lives. The perceptions of teachers regarding the use of blackboard technology for teaching English as a foreign language play a significant role in the inclusion of students in this online learning environment despite its frequent use (Landis, 2008). Even the study by Mohsen and Shafeeq (2014) confirms that EFL teachers hold positive views regarding using blackboard because it enhances student-teacher interaction and makes English instruction more effective (Hakim, 2020).

Most teachers view blackboard as a structured e-learning platform designed to increase learner engagement and motivation and enhance the teacher-student relationship (Mohsen and Shafeeq, 2014). For a long time, online learning systems have been used in education and other sectors, but the recent COVID-19 pandemic has caused a rapid shift to the online system (Mueller et al., 2008). Creating a practical and accessible learning platform that improves the methods of course content delivery

and promotes better teaching and learning is an urgent necessity (Al-Khresheh, 2021). Now, educational institutions worldwide are actively incorporating e-learning technologies into their curricula, selecting from various learning management systems (LMS) based on their policies and the academic needs of their students. According to Al-Khresheh (2021), the extensively used LMS platforms include blackboard, Moodle, and WebCT, with blackboard being the most common (Mueller et al., 2008). Blackboard technology is a vital platform that assists teachers in submitting essays, reports, assignments, and orders. In addition, it offers real-time chat rooms for instructors and students to discuss questions and materials (Al-Khresheh, 2021).

Blackboard is a learning management system (LMS) that facilitates e-learning by offering enhanced and additional learning gratified, collaborating activities, and communication tools (Pusuluri et al., 2017). A blackboard-using tutor can efficiently deliver a course with negligible or no face-to-face contact. Pusuluri et al. (2017) discussed some of the benefits of blackboard Technology, such as increased availability, improved communication, and skill growth. Teachers can post course projects and guidelines as documents or pictures (Ottenbreit-Leftwich et al., 2010). Utilizing the assignment feature, students can submit their homework and questions. Thus, blackboard offered students a variety of learning methods and facilitated their learning at their own pace (Pedersen and Liu, 2003).

Students' perceptions of LMSs, such as blackboard as a replacement for traditional physical classrooms, were accompanied by apprehension and obstacles (Ottenbreit-Leftwich et al., 2010). According to Almekhlafy (2020), students needed help adapting to online teaching methods, which demotivated them and hindered their learning (Pedersen and Liu, 2003). The lack of face-to-face interaction with the teacher affected the students' communication, and they also experienced technical difficulties in operating these e-learning tools (Pedersen and Liu, 2003). Students' perceptions also substantially affect their use of blackboard as an online platform (Almekhlafy, 2020). Blackboard is an effective and widely used platform for creating a motivated and effective learning environment, although only some students' technical skills influence their perception of it (Sandholtz et al., 1997).

Students' opinions of online learning management systems depend on their familiarity with platforms like blackboard (Tondeur et al., 2007). They should be aware of the growing demand for these applications in the educational system and be taught their advantages and disadvantages (Alharbi et al., 2022). Inconsistent results support the impact of blackboard technology; some indicate a positive effect on students' overall performance and learning, while others depict a demotivating experience for some students due to a lack of technical skills (Warschauer, 1997). Despite its

drawbacks, blackboard is a promising learning platform for students and teachers (Tondeur et al., 2007). Especially during the COVID-19 outbreak, using LMSs as a substitute for virtual classrooms has increased dramatically, but student perceptions of their utility vary (Zhu, 2012).

Foreign language instruction and study are of paramount importance in the educational sector. Learning and utilizing vocabulary is essential for individuals to convey their ideas, express their emotions, and communicate effectively (Zurita and Ryberg, 2005). Nowadays, virtual learning is gaining importance, and EFL teachers are now in favor of reducing traditional teaching methods in favor of modern technological teaching techniques (Mueller et al., 2008). According to Alamer (2020), one of the most prominent characteristics of a learning management system is that it promotes effective learning and teaching approaches and strategies. Blackboard, the licensed LMS, is the most widely used platform in Saudi Arabia's higher education institutions (Zurita and Ryberg, 2005). It provides a flexible and interactive learning environment tailored to students' needs. It has the potential to revolutionize traditional learning and teaching practices. Even so, blackboard facilitates student integration in writing tests and acquiring new English vocabulary (West et al., 2006). Saudi Arabia is one of the countries with the highest academic rankings. Saudi Arabia's comprehensive learning management system facilitates active learning and teaching. Ali (2017) argued that blackboard enhances learning interests and that students can benefit from the repeated use of learning materials. It allows for unlimited individual and group learning in time and space. Much has been done to encourage EFL learners in Saudi Arabia to study English (Zurita and Ryberg, 2005). Researchers discovered that a lack of motivation persists among these students; consequently, numerous techniques were developed to stimulate their interest (Ali, 2017). Previous research confirms that blackboard increases EFL students' intrinsic and extrinsic motivation to learn English. This is because when students use online technical media, their motivation and interest significantly increase, and they acquire greater technological fluency and master the art (Zemelman et al., 2012).

### 3. Methodology

This research aims to determine the influence of learning management systems, specifically blackboard, on EFL education in Saudi Arabia. In addition, this paper is concerned with students' attitudes toward using blackboard technology.

In Saudi Arabia, a sizable public university was the location for the survey's execution. The primary goal of this study is to investigate the perspectives held by students and instructors concerning the utilization of the blackboard learning platform in ESP classrooms. Quantitative and qualitative methods were utilized in the research we carried

out. In order to carry out this study, a multifaceted approach was taken. This approach included, among other methods of data collection, the administration of questionnaires, the performance of interviews, and the participation in observations. The research was conducted in Alkarij, Saudi Arabia, at a college specializing in language and translation at one of the universities in Saudi Arabia. The study participants comprised 114 male and female students learning English as a foreign language. The model comprised people of varying ages, genders, and levels of previous academic experience. Every single one of the subjects hailed from an exceptional region within Saudi Arabia. The model included students from different study levels, all trained by instructors who were not native to the country. All students were enrolled in ESP. To examine and evaluate the research question, two different methods of data collection were utilized, namely Questionnaire and Interview. The information regarding male and female students was composed in different fashions. In addition to collecting data through a questionnaire, the researcher collected and administered them. After that, 11 male and female teachers were interviewed and recorded.

### 4. Findings and discussion

There were 114 participants total, and 54 (47.3%) were female, while 60 (52.6%) were male. In addition, 103 (90.3%) of the respondents were between 18 and 25, whereas only 11 (9.6%) were older than 25. The descriptive statistics regarding the questionnaire responses are presented in Table 1. According to the data presented in Table 1, the responses that received the highest mean scores on the Likert Scale were "strongly agree" (0.01-1.00), "agree" (1.01-2.00), "neutral" (2.01-3.00), "disagree" (3.01-4.00), and "strongly disagree" (3.01-4.00). (3.01-4.00). (4.01-5.00). Blackboard is effective in terms of enhancing computer and internet skills and in terms of convenience and usefulness, and it is advantageous and beneficial for students. This is indicated by the fact that it received the highest mean score for four perceptions.

Likert scale components were separated into various themes to clarify further the information gleaned from the questionnaires. These themes included the correlation between blackboard usage and the age and gender of participants, the effectiveness of blackboard, and the challenges that participants encountered when using blackboard. After that, the information gleaned from interviews and observations was correlated with the data.

As shown in Fig. 1, whether or not there was a correlation between gender and blackboard usage was determined through the use of the Chi-Square Test. Since the p-value was lower than 0.05, the researchers decided that the correlation should be considered significant (p 0.05). Out of the 52 females using blackboard, only two (3.7%) were not using it. On the other hand, 46 (76.6%) of the males were found to use blackboard, while only 14 (23.3%) of

them were against its utilization. As a result, a sizeable percentage of prospective female candidates utilize blackboard.

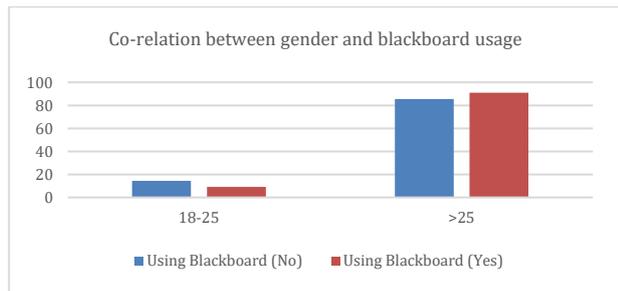


Fig. 1: Co-relation between gender and blackboard usage

The Chi-Square Test was also utilized to investigate the connection between the use of blackboard and the ages of the participants, as seen Fig. 2. The findings, on the other hand, indicated that there was not a significant correlation between these two variables; the p-value was higher than 0.05, which is written as  $p > 0.05$ . Only one participant was not using blackboard at the time (9.09%), but the majority of participants who used blackboard were over the age of 25 (N = 10, 90.9%). The other age group, which ranged from 18 to 25 years, showed comparable results; most participants who used

blackboard (N = 88, 85.4%) outnumbered those who did not (N = 15, 14.56%).

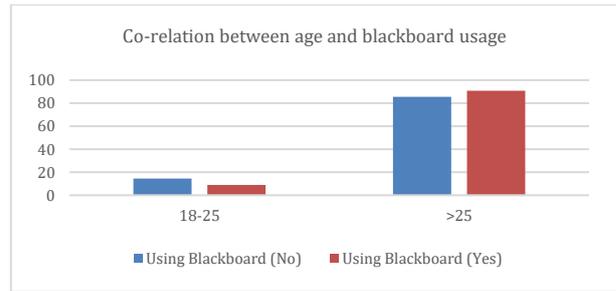


Fig. 2: Co-relation between blackboard usage and age of respondents

Learner motivation, proficiency in English techniques, the development of technical and learning skills, and collaboration based on feedback responses were all factors that demonstrated the effectiveness of blackboard technology as a teaching tool. Other factors that demonstrated its usefulness included convenience, methods of teaching and learning, and convenience. As seen in Fig. 3, 12 statements that illustrate the usefulness of blackboard technology were categorized under the same heading to calculate their frequencies and percentages.

Table 1: Descriptive statistics of Likert scale statements

Question	Range	Minimum	Maximum	Mode	Mean	Std. deviation
CMC is more convenient to me than face-to-face learning	4	1	5	3	3.46	1.011
CMC improves communication between students and students and between students and teachers	4	1	5	3	2.77	1.178
CMC through blackboard makes teaching and learning more effective	4	1	5	5	3.61	1.266
I find blackboard interesting and useful	4	1	5	4	3.79	.987
I like blackboard because I can work according to my own pace	4	1	5	5	3.75	1.169
Blackboard forum helps me to develop proficiency in English techniques and mechanics	4	1	5	4	3.66	.884
The blackboard forum helps me to share my work with my classmates and to obtain their feedback	4	1	5	3	2.83	1.116
I benefit from the feedback given by my teacher and my classmates through blackboard	4	1	5	3	3.63	.903
Blackboard assignments help me to develop computer and internet skills	2	3	5	4	4.04	.693
Blackboard assignments help me to develop knowledge and learning process	4	1	5	5	3.76	1.206
My teachers and peer's messages and postings presented clear and concise arguments for my task	4	1	5	3	3.28	1.191
My teachers and peer's feedback was important for increasing collaboration	2	3	5	3	3.96	.821
I feel isolated when I use blackboard	4	1	5	3	3.47	1.025
Blackboard is difficult to handle and, therefore, frustrating to use	4	1	5	3	3.27	.921
Slow internet connectivity is a major problem in using blackboard	2	3	5	4	4.21	.704
I face technical problems when I use blackboard, such as difficulty in connecting to the blackboard system, accessing peers work etc.	4	1	5	5	4.17	1.326
I prefer to learn from book than from website	4	1	5	2	1.98	.904
Blackboard encourages students to be dishonest (cheat)	4	1	5	3	2.78	.921
I feel I will become anti-social if I have to concentrate only on E-learning	4	1	5	3	3.39	1.148
Both synchronous and asynchronous interaction through blackboard is less effective than face-to-face interaction in the classroom	4	1	5	3	3.54	1.099
I do not have Internet at home, so I have problems using blackboard	4	1	5	2	1.94	1.011
I don't feel that blackboard helps to increase collaboration among students	4	1	5	4	2.93	1.400
I was not satisfied with the online peer communication	4	1	5	3	2.95	.986

Based on the results discussed earlier, the majority of students had a positive view of using blackboard technology for their studies. However, 53% of survey respondents felt that communicating through blackboard (CMC) was less convenient compared to in-person interactions. A close 52.6% of participants believed that learning with blackboard's CMC feature enhanced their educational experience.

Furthermore, 68.8% of the students found blackboard to be engaging and beneficial for skill development. Additionally, 55.7% appreciated blackboard for its user-friendliness, particularly because it allowed them to learn at their own speed. The participants had a high consensus (78.3%), stating that they believe blackboard helps improve technical skills such as the Internet and computer

savvy. 62.1 percent of respondents agreed that blackboard helps them improve their knowledge and learning skills.

Last but not least, 64.3% of respondents said that blackboard made it easier for them to collaborate with their classmates and teachers. On the other hand, 33.9% of respondents did not agree that CMC makes it easier for students and teachers to communicate with one another. 32.2% of those who participated in the survey wanted to keep their work from blackboard Forum to get feedback from their classmates. 21.5 percent of people who took the

survey believed that receiving feedback from the instructor and peers on assignments could have been more helpful. Furthermore, almost nobody had a problem with how blackboard technology encouraged more people to work together and improve their technical skills. In total, the questionnaire contained eleven different statements about the difficulties respondents had experienced while using blackboard. The statistical analysis of these statements is presented in Fig. 4, which you can view here.

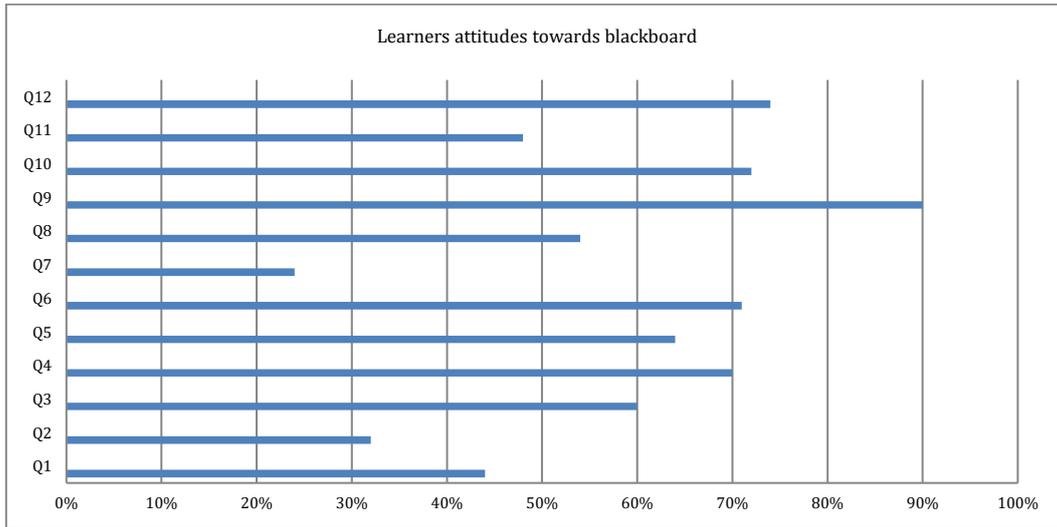


Fig. 3: Learner’s perceptions regarding the effectiveness of blackboard technology

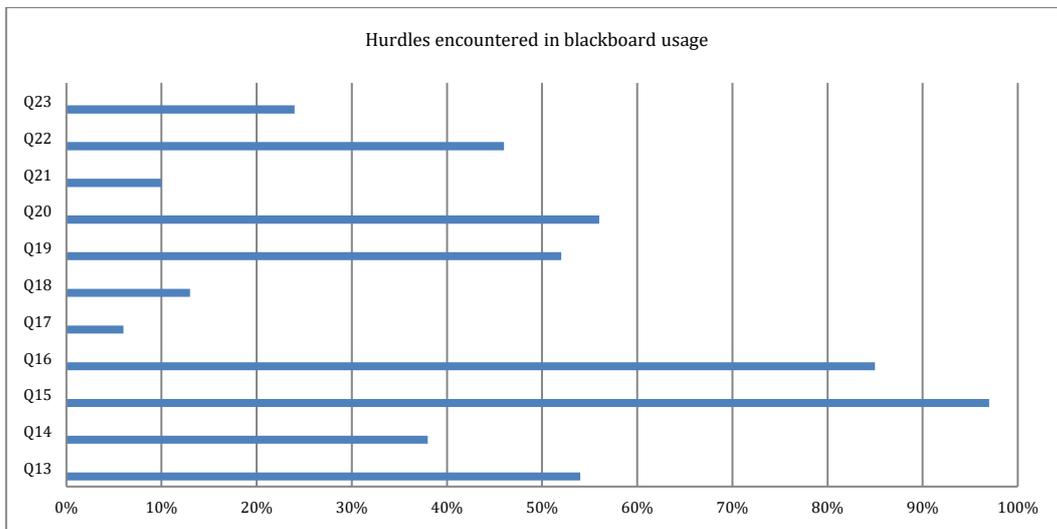


Fig. 4: Hurdles encountered in blackboard usage

The results regarding the learners’ perceptions of the challenges they faced while using blackboard were ambiguous, and most respondents were agnostic. On the other hand, some respondents did agree with the challenges that were encountered in the usage of CMC. Although 44 percent of participants took a neutral stance, 51.4 percent believed that using blackboard led to increased social isolation. 55.7 percent of respondents needed an opinion on whether or not using blackboard was complex, while 33 percent agreed that it was difficult and frustrating. In addition, internet connectivity

was a significant problem for the participants; some did not have any access to the Internet at all, and the vast majority (83.7%) experienced slow internet connectivity. While using blackboard, 73.9% of students ran into technical issues, such as trouble connecting to the system or needing help to view their classmates’ work. Seventy-five percent of the participants thought that CMC is superior to learning from books in improving memory and knowledge. In a similar vein, when it comes to online education, cheating is a significant problem; however, 62.9% of respondents did not have an opinion either way on

this issue. While 37.1% of participants maintained a neutral stance on the question, 44.8 percent of respondents concurred with the statement that e-learning encourages antisocial behavior. The support of 48.2% of participants and the neutrality of 38.8% indicate that blackboard is less effective in synchronous and asynchronous interaction. According to 41.4% of participants, blackboard does not play a role in increasing student collaboration, and the level of satisfaction provided by CMC regarding peer communication was viewed as neutral by 52.6%.

The significance of the Likert scale questionnaire's variables was evaluated using a Chi-square test, which revealed that 11 of the statements were significant ( $p < 0.05$ ). These statements demonstrated that receiving feedback via blackboard was convenient, enhanced communication occurred, and the statements were applicable. In addition, it was discovered that factors such as slow Internet connectivity, technical issues, the promotion of dishonesty, and overall satisfaction with blackboard's capabilities for enhancing peer-to-peer communication were significant. The  $p$  values of the remaining 12 assertions were more significant than 0.05, meaning they did not meet the criteria for statistical significance ( $P > 0.05$ ).

In addition, interviews with educators were conducted to gain their perspectives on the usefulness of blackboard technology for ESP education. Most instructors reported that blackboard had a beneficial effect not only on the education their students received but also on the delivery of the courses themselves. However, some educators did not find blackboard helpful or intriguing, and they continued to assert that more conventional approaches to instruction and education offered exceptional long-term value. The educators pointed to various advantages, one of which is blackboard's capacity to improve linguistic performance competence. It is conducive to encouraging cooperation. 3) It encourages the development of a positive relationship between the instructor and the pupil. 4) Students can access their courses 24 hours daily, even during New York time. 5) It can be accessed quickly, helps save time, and can accommodate new technological developments. 6) It organizes schedules with poor-quality content. 7) It contributes to the implementation of blended instruction. The following is a list of some of the comments that the instructors made:

- "One major advantage is its availability to students. They can access their courses at any time. Blackboard collaborate is a good tool for virtual online classes. Drawbacks, on the other hand, include lack of knowledge on how to use blackboard by some students. In addition, it is time consuming when it comes to checking assignments." (Teacher F3)
- "The more instructors and students use the blackboard learning system, the more blackboard literacy they will get that will affect their level of

improvement in the English language." (Teacher F5)

- "Use of blackboard should become as habitual action taking place in the instructional process; to reach this stage more effort should take place to convince teachers and students to have the confidence, ability, and willingness to use it." (Teacher M4)

During class observations, teachers actively interacted and engaged with the students in their classroom. The students spoke Arabic to one another for the most part, but when it came time to present their work for the class, English was the preferred language. Worksheets were distributed to students, and language-related topics were presented to them in class using technology such as computers and smartboards. The use of video clips and blackboard, which allowed teachers to upload assignments and increase student engagement, were two strategies that were implemented by educators in order to guarantee that students understood the material in its entirety. However, it was clear that the students needed to gain proficiency in spoken English, as shown by the fact that only a small percentage of questions were asked in English and that only a tiny percentage of their interactions were in English.

## 5. Findings of the comparison

Since CMC through blackboard is still in its infancy in Saudi Arabia and because its use has yet to become widespread, care must be taken not to generalize the results of this study (Pusuluri et al., 2017). The research aimed to determine how effective blackboard is in teaching ESP and students' feelings about using such technology (Zurita and Ryberg, 2005). A survey was carried out to determine students' perceptions regarding the efficacy of using blackboard technology and the various challenges they encountered during its implementation. Separate interviews were also conducted with teachers to determine their perceptions (Warschauer, 1997).

The vast majority of respondents fell between the ages of 18 and 25, and the vast majority of them were male. Participants' responses to the questionnaire indicated a positive attitude towards implementing blackboard technology in the modern era. Participants agreed that blackboard is an efficient learning management system (LMS) tool that helps develop participants' technical skills, such as using computers and the Internet. According to the survey findings, traditional face-to-face teaching methods are more time-consuming than blackboard learning, which is more convenient (Zurita and Ryberg, 2005). Most respondents believed that blackboard facilitates improved communication between students and between students and instructors via direct platform interaction (Hauck and Stickler, 2006). Most participants favored utilizing blackboard instead of more conventional learning methods based on books. This is because

blackboard is more efficient and beneficial. The use of the blackboard revolutionizes the conventional methods of teaching and learning (Hauck and Stickler, 2006). The flexibility it provided, which allowed participants to work at their own pace, was considered helpful by those taking part. Participants felt that their learning was enhanced due to using blackboard because it enables teachers and peers to provide feedback on students' work, and they felt that it enhanced their leanings (Change, 2008). Almost all respondents believed that blackboard makes interactive learning easier through novel approaches and quizzes, making ESP instruction more exciting and inspiring (Mohsen and Shafeeq, 2014).

Similar results were obtained from classroom observations and student and teacher perceptions (Change, 2008). The use of English presentations and the uploading of quizzes and video lectures to blackboard facilitated student learning and motivation. Using multimedia aids and other materials, such as videos, texts, and the like, makes teaching enjoyable (Pusuluri et al., 2017). Nonetheless, some students had a neutral outlook on implementing blackboard to improve communication among peers and between students and teachers. This may be due to several factors, including the early stage of its application and a need for more awareness of its benefits (Pusuluri et al., 2017). In addition, blackboard was challenging for some students, making investing time in new technology frustrating. Such a response is contingent upon the technical proficiency of students (DeNeui and Dodge, 2006). The majority of students encountered significant difficulties due to slow internet connectivity. This hindered their ability to access the system and submit assignments (Al-Oqaily et al., 2022). Recognizing that LMS can only partially replace conventional teaching and learning methods is crucial. It can only supplement traditional methods by providing a platform to access coursework and assignments (Albion, 1999).

Interviews with teachers yielded results consistent with these findings: the vast majority of teachers supported using blackboard (Coates, 2007). They believed that blackboard made it easier for teachers and students to access information by facilitating the organization of tasks and courses and the scheduling of presentations and quizzes (Coates, 2007). Following the implementation of blackboard, they found that their overall academic performance improved to a significant degree. The use of the blackboard platform contributed to improving both the students' command of the English language and their understanding of linguistics. Nevertheless, some teachers needed help finding the blackboard forum helpful or motivating (Ertmer and Ottenbreit-Leftwich, 2010). They assert that using blackboard does not lead to increased levels of student motivation in ESP, contrary to what other researchers have found. They continue to prioritize more traditional approaches to teaching and learning over the various technological

advancements that have been made. The ESP teachers and their students could have been more creative by using blackboard. Even highly experienced professionals struggled to overcome relatively straightforward technical challenges (Alamer, 2020). Compared to the classroom observations, the teachers' opinions were consistent with the observations. The use of practices in the classroom, such as teachers speaking only in English and carrying out all presentations and group work in English, as well as the use of video lectures uploaded to blackboard, all contributed to the positive response of the participants (Ertmer and Ottenbreit-Leftwich, 2010). However, all the communication between the students took place in Arabic, their native tongue.

The findings of this study provide significant indications for policymakers and educational institutions regarding the utilization of audiovisual aids and multimedia services in the classrooms to interpret the impact that blackboard technology has on ESP learning effectively. In addition, it details the strategies that ESP teachers can employ to pique their interest and sustain their students' motivation, as well as the information they need about the benefits that can be gained from utilizing blackboard technology. In addition, the administrations of educational institutions should investigate the provision of computers and smart boards as a means of effective learning and addressing the challenges students face.

## 6. Conclusion

This is the first study investigating blackboard technology's influence on ESP education in Saudi Arabia. As a result, the research utilized both qualitative and quantitative research methodology, which has never been used in any previous research carried out in Saudi Arabia. Collecting data from various sources was one way this investigation set out to achieve its goal of achieving the highest level of productivity possible. The survey was broken up into four different categories: the correlation between using blackboard and being a particular gender; the correlation between using blackboard and being a certain age; learners' perceptions of how blackboard forums are used; and teachers' perceptions of how blackboard technology is utilized in the classroom. According to this research's findings, the blackboard opportunity is a precise technique that students and teachers can utilize as it will save them time and money and reduce the amount of work. The investigators have found that it makes communication effective and straightforward not only between students themselves but also between them and tutors. Additionally, it makes it simpler for peers to work together in discussions. blackboard technology is a cooperative addition to conservative methods of training and learning. However, it does come with a few disadvantages, such as the necessity of a reliable internet connection. Unfortunately, not all students have

internet access or features to make the technology user-friendly. Also, not all learners or instructors can afford the fees required to access these features.

## Compliance with ethical standards

## Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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