Blended Learning Activities in ESP Classrooms: Voices of Indonesian Students[1]

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Abstract

Blended learning is accepted as effective to be implemented in English for special purposes (ESP) classes as it delivers authentic learning experiences and allows students to assume responsibility for the learning process. Regarding the notion of blended learning's effectiveness in the ESP classroom, this study explored university students' perspectives on blended learning implementation in their ESP classes. The study included 70 participants from three distinct departments in one of the notable Indonesian universities and employed a cross-sectional survey to obtain the quantitative data. In addition, qualitative data were gathered from the online focus group to improve the survey findings. The results showed that the majority of students in ESP classes rated blended-learning activities positively. Besides, some noteworthy implications that could be drawn from the current study involved the utilization of technologies, such as language management systems (LMS) and other learning applications, as well as supportive ESP instructors to facilitate blended-learning classrooms.

Resumen

El aprendizaje combinado se considera eficaz en las clases de inglés para fines especiales (ESP), ya que ofrece experiencias de aprendizaje auténticas y permite a los estudiantes asumir la responsabilidad del proceso de aprendizaje. En cuanto a la noción de la eficacia del aprendizaje combinado en el aula de ESP, este estudio exploró las perspectivas de los estudiantes universitarios sobre la implementación del aprendizaje combinado en sus clases de ESP. El estudio incluyó a 70 participantes de tres departamentos distintos en una de las universidades indonesias más destacadas y empleó una encuesta transversal para obtener los datos cuantitativos. Además, se recopilaron datos cualitativos del grupo de discusión en línea para mejorar los hallazgos de la encuesta. Los resultados mostraron que la mayoría de los estudiantes en las clases de ESP calificaron positivamente las actividades de aprendizaje combinado. Además, algunas implicaciones notables que podrían extraerse del presente estudio involucraron el uso de tecnologías, como sistemas de gestión de idiomas (LMS) y otras aplicaciones de aprendizaje, así como instructores de ESP de apoyo para facilitar las aulas de aprendizaje combinado.

Introduction

Due to the rapid development of information and communication technology (ICT) over the past 20 years, every area of education has undergone a significant change. The technological improvements have enabled colleges to undertake cutting-edge training that fully or partially incorporates online learning. In the 21st century, the integration of media technology has become a demand and a necessity for every teacher in order to inspire learners to study freely, collaboratively, creatively, and critically. In addition, when technology is incorporated into the field of education, conventional classroom activities such as lectures, assignments, and examinations can be moved to a website or to a Learning Management System (LMS) (Chollampatt & Ng, 2018). The student-centered independent manner rather than constantly depending on the teacher as a source of knowledge, is another method in which learners are instructed to study in an active way and in which technology plays a very important part (Gebre et al., 2014). As a result, there is no question that the advancement of education, particularly in Indonesia, could benefit tremendously from the application of technology in an appropriate and strategic manner.

Currently, the educational system, to meet the difficulties of expansion and satisfy the demands of individuals, is attempting to adopt new technologies and to explore new avenues to provide all students with high-quality educational opportunities. Blended learning combines e-learning with traditional classroom methods and individual study to produce a new, hybrid teaching methodology (Friesen, 2012). In teaching and learning, blended learning is one of the latest concepts. New technology offers students more opportunities to access education equally (Matukhin & Evseeva, 2014). Blended learning can also help the students learn and engage with lecturers and other students from almost anywhere independently (Singh & Thurman, 2019). More people nowadays use blended learning to describe how e-learning and traditional classroom approaches are combined to produce a new hybrid teaching

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methodology using synchronous and asynchronous learning environments for online learning (Perveen, 2016). Thus, blended learning allows the combination of traditional classroom instruction and online activities (Rao, 2019).

The challenge for higher education institutions is not only to locate and implement new technologies, but also to reimagine their education, thereby assisting students and academic staff in their pursuit of digital literacy. Both synchronous and asynchronous language learning strategies can be advantageous (Perez, 2013); combining the two approaches can provide students with a better opportunity to learn than each model alone. According to Williams and Lahman (2011), synchronous language learning can improve students' critical thinking. Furthermore, Rinekso and Muslim (2020) reported that task negotiation, planning, opinions, and question-and-answer sessions could be conducted by lecturers relatively quickly using synchronous online conversation. In addition, asynchronous language learning might encourage learners to pose queries requiring lengthy responses (AbuSeileek & Qatawneh, 2013). Despite the aforementioned benefits of synchronous and asynchronous modes in blended learning, challenges faced by students when practicing blended learning may become unavoidable. Therefore, the present study has explored English as a foreign language (EFL) students' opinions and challenges in the English for special purposes (ESP) classroom using blended learning activities. In fact, ESP is one of the compulsory subjects in Indonesian higher education curriculum, which is offered in all departments to equip students with English skills needed in their fields. Consequently, the study aimed at exploring the implementation of online blended learning approach in several ESP classes with a larger sample size in different majors.

Review of the Literature

Blended learning in language teaching

Blended learning has emerged as an essential new educational paradigm. The study of blended learning is fresh and interconnected with various academic sectors, including English teaching methods, educational technology, computer-assisted language learning (CALL), and online education (Picciano, et al., 2013). It belongs to an era of educational technology in which students learn using various devices, such as computers, mobile phones, and tablets (Graham, 2013 & Yang et al., 2021). Blended learning has become increasingly prevalent in higher education as many universities implement this in their instructional guidelines (Castro, 2019). It is because blended can learning assists lecturers in enhancing student learning and maintaining their engagement throughout the learning process.

The benefits of blended learning are often summarized in terms of student participation and process flexibility as follows: (1) encouraging students of all kinds of learning modes to participate more actively in learning activities, (2) providing students with the ability to access online materials at any time, (3) encouraging students to participate in an online discussion that reflects the understanding and perspectives of all participants, (4) helping students with follow-up studies after they have studied in the classroom, (5) boosting students' confidence in online group learning (especially those students who are more reserved), and (6) developing an environment that is flexible for learning (Güzer & Caner, 2014; Mohammad, 2010; Ropero-Padilla et al., 2021). In light of these findings, educational institutions should consider using blended learning to encourage active student engagement, flexible learning, and online collaboration skills.

Academic institutions should first carefully assess their objectives and goals to choose an appropriate blended learning model that matches their pedagogical style, technology resources, and student characteristics to provide a customized learning experience. Friesen (2012) mentioned various types of blended learning models which are often utilized as follows: (a) the rotation model, which is characterized by the combination or, more accurately, the embedding of online participation within a variety of face-to-face modes of instruction in a periodic fashion. (b) the flexible learning paradigm, in which several students collaborate on primarily online activities while being monitored by a physically present teacher in the classroom. (c) Self-blending model, where students may take their own courses of interest independently in a conventional learning atmosphere constituting class convenor and peers; such a model has risen in popularity lately. Finally (d) The enriched-virtual model, which is illustrated as online learning experiences that are occasionally supplemented by face-to-face learning arrangements with a teacher.

Blended learning may have technical drawbacks if not developed and implemented properly, as it depends on technological resources or equipment. Information technology (IT) literacy can be a significant barrier for students who wish to access course materials, which makes the availability of quality technical support

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vital. Group work may be difficult in an online context due to administrative difficulties. Students who utilize lecture recording devices may fall behind in their academic courses. It has been discovered that providing helpful feedback needs additional effort and money (Surahman & Sulthoni, 2020). In addition, gaining access to the network infrastructure is challenging. Using learning technology tools, however, can waste resources (Niess, 2005). Learners must possess a fundamental understanding of technology or the motivation to study. The last obstacle is the high costs generated by installing and maintaining modern technologies, which cause a lack of motivation and misuse of the available resources (Rao, 2019). Therefore, addressing technical issues is crucial for educational institutions as they need to emphasize providing appropriate technology resources and equipment, IT literacy support, and excellent technical help for students.

Synchronous and asynchronous activities in a blended learning environment

As stated by Norberg et al. (2011), the development of blended learning is an increasingly popular approach to education that combines online and face-to-face instructions, providing benefits for both methods. It is generally perceived to be a combination of synchronous and asynchronous learning. It is also mentioned that the deemphasis on teaching and learning places is the effect of the digitalization of contemporary learning environments. Nowadays, as time has become the vital element for a technology-supported education, at least five choices to blend the learning environment have been developed, namely migration, support, location, learner empowerment, and flow. By harnessing these options, teachers may design learning environments that prioritize students' needs, engagement, and educational experiences.

Blended learning has shifted the roles that teachers and students are required to fulfill (Garrison & Kanuka, 2004). Then, educators embraced their new roles as educational facilitators. Students had access to a seemingly unlimited number of informational resources via the internet. They were able to speak flexibly with the instructor, one another, and anyone in the globe, thereby eliminating the limitations of conventional classrooms (Anderson, 2008). These modifications drastically altered the instructor's role as a mere carrier of information and expertise. Students simultaneously experienced significant alterations. Those who maintained unproductive behaviors, such as attending class passively, performed poorly in the blended learning setting (Garrison & Kanuka, 2004). In addition to receiving more frequent instructor comments, students in the new sessions were also subjected to regular peer reviews of their work, which forced them to maintain a high level of engagement.

Blended learning can include synchronous learning as one of its components. Synchronous learning activities constitute real-time online interaction (Newton, 2004). Some studies have reported that synchronous learning facilitates language learning efficacy (e.g., Rinekso & Muslim, 2020). In a synchronous learning environment, both the students and teachers must be present simultaneously for synchronous learning to occur. Learners have more significant ties to their classmates and teachers in this environment (Yamagata-Lynch, 2014). However, synchronous sessions require student and teacher attendance simultaneously (Perveen, 2016). Racheva (2018) mentioned the teachers' concerns about the spontaneity of expression and shyness may hinder the synchronous online learning environment. Besides, high demand for real-time experiences and technological difficulties such as poor connectivity may affect the activities (O'Rourke & Stickler, 2017). To address these issues, teachers need to promote a supportive learning atmosphere and have a backup plan to ensure smooth learning activities.

Video conferencing, teleconferencing, real-time chatting, and live-streaming lectures are all examples of synchronous learning environments. The benefits of synchronous online learning are that students can be more engaged and motivated because teachers can see how they are doing while they are learning, making students more interested in learning and improving their understanding. On the other hand, the term synchronous e-learning refers to learning and teaching that takes place simultaneously through an electronic medium (Ajmera & Dharamdasani, 2014). For example, using synchronous voice or text chat rooms offers the possibility of interaction between students and teachers and among students themselves. In addition to text-based chat, video conferencing allows for face-to-face conversation. On the other hand, web conferences, which may be made more participatory with the help of polls, surveys, and question-and-answer sessions, can sometimes outperform video conferences (Perveen, 2016), further improving students' learning experience.

A second option for online education is s asynchronous learning. Learners have the freedom to complete assignments at their leisure and their speed in asynchronous environments, which offer greater temporal flexibility. In such learning situations, delayed replies allow students to ponder on a subject and explore

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many viewpoints, improving their critical thinking abilities. It can also include the prior expertise of the learners with new concepts (Lin et al., 2012). Asynchronous learning allows students to learn flexibly in their comfort zone (Vonderwell et al., 2007). Students can acquire knowledge independently and do not have to rely solely on the instructor (Fernandez et al., 2022). These environments make audio/video lectures, handouts, publications, and *PowerPoint* presentations instantly accessible to students. This content is accessible at any time, from any location, using a learning management system (LMS) or other channels of a similar nature, such as a course management system (CMS) and a virtual learning environment (VLE). CMS is an older phrase used less frequently today because it refers to the essential management of course content, whereas LMS refers to the system that supports the learning process (Perveen, 2016). Overall, LMS nowadays has provided a comprehensive learning environment as it gives flexible and accessible teaching and learning.

English for specific purposes in Indonesia

In educational settings, ESP refers to determining the student's learning needs, which are then translated into learning objectives that become the foundation for all course decisions, such as activities, materials, and assessments (Brown, 2005). Poedjiastutie (2017) reported that the English proficiency of Indonesian students is insufficient for an ESP course, and they are shocked when introduced to ESP materials due to their inadequate English proficiency. Some factors influence students' English proficiency in ESP classes in Indonesia, including their residential location, the diversity and size of their ESP class, vocabulary knowledge, language skills, motivation, and the ineffectiveness of their ESP materials (Sari, 2018). Learners´ motivation may be affected by need analysis because they can see the relevance of what is being taught. It should be known that even though ESP is designed to teach the students specific technical vocabulary, nontechnical English is increasingly being used for communication in the workplace, so ESP and general English can never be totally detached from one another (Poedjiastutie, 2017). In addition, technology should be considered one of the facilities that should be utilized, as it can significantly enhance and accelerate the development of four language skills necessary for professional communication in an ESP course (Tarnopolsky, 2013). Therefore, it is also necessary to provide enough technological support for ESP teaching and learning activities and make students more intellectually challenging.

Blended learning typically combines face-to-face instruction with technology employing both asynchronous and synchronous activities and resources. It has been described as more effective than traditional face-to-face or online-only learning teaching (Arifani et al., 2019, Kurucova et al., 2018), especially since it provides authentic learning activities and enable students to assume responsibility for the learning process (Tsai, 2012). Blended learning enables students to accelerate the process of acquiring language skills through the use of various internet resources that have had a significant impact on the English reading, speaking, listening, and vocabulary skills of ESP students (Kurucova et al., 2018). Additionally, previous studies have reported its usefulness to fostering the independence and collaboration of ESP students to pursuit their language proficiency, also assist English language instructors in customizing and integrating innovative learning activities and media (García-Sánchez, 2016; Mulyadi et al., 2020; Wichadee, 2017).

Method

Research design

This study was conducted using a mixed-methods research design, in which both quantitative and qualitative data were collected and analyzed. The aim of employing this design was to gain a richer and more comprehensive data collection from the implementation of blended learning activities in ESP classrooms.

Participants

The study was conducted in a private university in Malang, East Java, Indonesia. Seventy participants from three university departments, namely Visual Communication Design, Entrepreneurship, and International Business Departments were taken using purposive sampling. There were 32 males and 38 females from 18 to 20 years old. The participants were freshmen taking an ESP course during the odd semester of the academic year 2021/2022 with Bahasa Indonesia as their native language. Due to the pandemic situation, the students did not attend the classes physically; they, instead, joined the courses remotely from their residences, half of which were several capital cities of some big provinces, like East Java, Kalimantan, and Bali; meanwhile, the rest of the participants were also big city dwellers. The course

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itself was conducted in a full-blended learning mode consisting of both synchronous and asynchronous online activities. Before taking parts in the research, the nature of the study and the participants' contribution to it were explained to the students. Then, they filled in and signed the consent forms that showed their willingness to volunteer.

Data collection and analysis

A cross-sectional survey was used to assess the perception of the targeted population at a single point of time. The survey was administered in the last meeting of the course with an assumption that all students had completed the meetings; therefore, they had formed their perception on the ESP classroom activities. In consideration of its practicality, the survey was delivered through *Google Forms* from February 4 to March 4, 2022. The questionnaire for the survey was adapted from Froman et al., (2020). The items in the questionnaire were adjusted into the blended learning context in ESP classrooms. They consisted of questions with several multiple-choice items asking how the students accessed the blended learning activities conducted in the ESP classroom and kinds of activities during the class, as well as other items of a five-point Likert Scale to discover the their perceptions on the activities during the ESP class. All the questions were mandatory.

Before being distributed, the questionnaire draft was checked by an expert in ESP for content validity. For concurrent validity, the correlation between the scores on the newly adapted questionnaire and those on the previous test by Froman et al., (2020) was tested using *Excel*. The correlation score was 0.82, which indicated that newly adapted questionnaire had a relatively high concurrent validity. For the reliability index, Cronbach's alpha was used on *Excel* as well. The score of reliability index was 0.78 which showed that questionnaire was reliable. The results of the survey were analyzed quantitatively employing descriptive statistics to find out the frequency for questions about students' access to, activities in and perspectives towards the ESP class. According to Woodrow (2014), the descriptive statistics summarized the raw data results obtained from the questionnaire. Meanwhile, an online focus group was conducted to obtain the qualitative data. An online focus group is basically not different from focus group discussion; it is the development of the more conventional method due to the presence of the internet (Nyumba et al., 2018). The data collected from the online focus group were used to supplement the data obtained from the survey. Eight students involved in the online focus group due to their time availability. From the eight discussion participants, three students were from Visual Communication Design Department, two came from Entrepreneurship Department, and one participant was an International Business Department student. Besides, the guide for the online focus group, which was constructed once the survey findings were obtained, contained two main questions about activities during the blended learning class and how students perceive the activities. At the last stage, the data from the online focus group were cross-checked with those gained from the survey to obtain a clearer understanding of the findings.

Results

Students' access to ESP classrooms

For the device used to access the ESP class, the survey included the ownership status of gadgets (computer, laptop, tablet, and cellphone) typically used by the students in the ESP classroom. This question was involved to expand how the students were able to access both synchronous and asynchronous learning activities. Analysis of the data showed that almost all students have access to their personal laptop, PC, or tablet and use them to access the ESP class both synchronously and asynchronously. Table 1 displays the choice of respondents' devices. Almost all respondents used their personal computer, or laptop, or tablet as the main gadget to access the ESP classroom (94.3 %). Very few students shared a computer or laptop.

Respondents' device	Percentage
Using a personal laptop or PC	94.30%
Sharing a laptop or PC	2.90%
Borrowing a laptop or PC	2.90%

Table 1: Access to device used for the ESP class

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The online focus group findings reported that many university students usually had their own laptop or PC to support their ESP learning activity. Besides, the lack of access to laptop or computer for some students was usually due to their temporarily crashed gadget.

> *I think it's not only me, but also all my friends have their own laptop or PC for studying*. (Student 1)
>
> *Having a laptop or PC is a must for me, I can't imagine my university life without my laptop. How can I do all my ESP and other classes' assignments? Although I can use my cellphone, I think it is more convenient to use a laptop as it has way bigger screen!* (Student 3)
>
> *Before my overheated laptop crashed, I always access my ESP classroom using this gadget. Now, I have to share my home PC with my sister while waiting for my laptop to be fixed….* (Student 4)

It can also be deduced from the findings that the personal laptop was the most popular and suitable gadget to access the ESP classroom. Some students used their own laptops in the classroom because they believed that laptops were essential electronic devices for university students. Some who did not have their own laptops borrowed one to access ESP course materials. Therefore, it can be concluded that laptops had become a necessity for students and that they, on average, used them in classes, including ESP classes.

As concerns the internet connection quality during the ESP learning activity, a little more than half of the respondents had a considerably good WiFi connection (54.3%). While others admitted that their connection was only moderate (27.1%) or excellent (18.6%). It is also worth mentioning that none of the students had poor internet connections during their ESP learning activity.

Internet quality	Percentage
Very good	18.60%
Moderate	27.10%
Good	54.30%

Table 2: Internet connection quality

The students also reported that they did not have an issue with the internet connection as it was considered stable throughout the day. It only became problematic when there was a blackout or storms, especially during a synchronous meeting.

> *The Wi-Fi connection at my house is mostly stable. I never have a serious problem with it. Ah… only when there is a blackout, it may become a bit unstable.* (Student 1)
>
> *I agree with* [Student 1]*. And also, when there is heavy rain with thunders, my connection will sometimes be up and down, too. But it is only problematic when we have a Zoom meeting. If it is only asynchronous, it will be just fine.* (Student 2)

It can be inferred that students were supported by a considerably steady internet connection; thus, it allowed them to access the ESP blended classroom conveniently. The majority of students said that their residence's Wi-Fi network was stable, and there were no serious issues accessing ESP classes, particularly in synchronous mode. Some students, however, said that the Wi-Fi connection at their house occasionally crashed caused by natural disturbances such as rain, storms, and electrical outages. Overall, students agree that their Wi-Fi network was effective and worked well for attending ESP classes.

In the meantime, the amount of time that students devoted to studying materials related to ESP in a given week differed from person to person with the majority of the students spending one to three hours (68.6%) with 28.6% of the respondents reported spending three to five hours. Only two people (2.9%) needed more than five hours to join the ESP classroom. The length of study involved both synchronous meeting and independent study.

Length for accessing ESP in a week	Percentage
1-3 hours per week	68.6%
3-5 hours per week	28.6%
>5 hours per week	2.9%

Table 3: Length of time ESP classroom accessed in a week

Findings from the online focus group revealed that the students mostly accessed the ESP blended classroom once a week on the day where the class took place. They usually started the learning activity independently from ten to fifteen minutes (it took longer for some students) before the class began to

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read and prepare the materials that would be discussed in the synchronous meeting. Later, they joined the synchronous meeting through *Zoom*, where this activity usually lasted around 100 minutes.

> *I usually spend two hours to study ESP every week. I opened and read the materials ten minutes before the face-to-face meeting with my lecturer. Then, the class* [synchronous meeting*] lasted for around 100 minutes.* (Student 2)

> *Just like* [Student 2], *before the online class began, I looked through the LMS for around ten to fifteen minutes*. (Student 3)

> *It even took me longer than* [Student 2*] to prepare for my class, I opened* [studied independently] *the LMS an hour before the face-to-face online meeting.* (Student 6*)*

Students declared that they normally studied independently to prepare ESP content for synchronous classes, such as reading information from the LMS and other supporting materials. Some students spent two hours preparing for a synchronous lesson, while others spent more time. Then, they continued the activity with another independently asynchronous activities, such as doing assignments or reviewing the materials given in the synchronous meeting.

> *Then* [after the synchronous meeting]*, I continued with doing homework from the lecturer for around thirty minutes to one hour*. (Student 2)

> *Sometimes, if there's no assignment, I just quickly reviewed what I have learned in the synchronous meeting … usually* [it lasted] *around thirty to one hour. (Student 6)*

Meanwhile, some students needed more than three hours to complete substantial tasks such as projects and group assignments which need more discussion and preparation. However other students spent three hours to complete minor assignments such as generating PPT slides for their individual assignments.

> *Sometimes, we need more than three hours to do a big assignment, such as project work.* (Student 1)

> *Exactly, every time I had a presentation, it took me around three hours to prepare the PPT slides; it sometimes took longer when we work in groups, because we needed more time to discuss.* (Student 4)

Students' activities in an ESP Classroom

Synchronous activities

This section describes the activities that the respondents typically did during the ESP class, as well as the reasons for choosing them according to the analysis of the online discussion group data. The representation of the data analysis is divided into two kinds based on the blended-classroom activity, which are synchronous and asynchronous activities respectively. In the data, the respondents could choose more than one option according to the types of activities they commonly did during the ESP class.

The table below shows the types of activities that were conducted synchronously. It can be assumed that class discussion (74.3%) and lecture (72.9%) were the most frequent synchronous activities conducted in the ESP class. Next, the synchronous quiz became the third most common activity with 30%. Then, almost a quarter of all participants selected presentation (24.30%). Lastly, it is evident that the students very rarely played games in their synchronous ESP classes (2%).

Synchronous activity	Percentage
Discussion	74.30%
Lecturing	72.90%
Quiz	24.30%
Presentation	30%
Game	2%

Table 4: Students' activities during the synchronous class

The participants in the interview also stated that during the whole semester, classroom discussion and lecture were the most dominant activities conducted in the class. They also added that the discussion topics and *Power Point* slides for the synchronous meeting were mostly taken from the learning materials in the LMS. Besides, they maintained that the lecture and classroom discussion activities were often conducted simultaneously. Usually classes started with a lecture, where the lecturer explained the materials; then, it was followed by the classroom discussion, and sometimes, a presentation as well. In the discussion, the lecturers were responsible for maintaining the flow of the classroom discussion.

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> *From whole semesters, I can recall that around ten meetings were used for lecturing, and then classroom discussion. I could recall how the lecturer led the discussion really well so the students could stay focus and participate well in the forum.* (Student 2)

Based on the information given by students who attended the ESP class, they noted that most of the teaching methods used in both synchronous and asynchronous were lecturing. Students also provided feedback that the lecturer did an excellent job of leading the discussion session and was able to encourage students to participate actively during the teaching learning activity.

Sometimes, the lecturers also used the 'Breakout Room' feature in *Zoom,* where students were given some time to discuss the topic given by the lecturer or do a group assignment. After the group discussion finished, they moved back to *Zoom*'s main room to present the results of their discussion.

> *In my class* [Business Administration*], my ESP lecturer sometimes divided us into four or five groups. Then, they gave us a topic to discuss or mini assignment to do together*. (Student 4)

> *In my class, too. I remember in one meeting; we were asked to write a script for a role play in the 'Breakout Room'. After 30 minutes, we performed the role play in the main room.* (Student 5)

Turning to the next synchronous activity, 30% of the participants reported that an online quiz was one of the activities conducted in their ESP class. It was also taken from the qualitative data, which showed that ESP lecturers regularly used online quiz platforms to enhance student's engagement. This activity was usually conducted prior to the lecture as a brainstorming activity. Sometimes, the students were required to take the quiz at the end of the meeting as a form of reflection or exercise.

> *Before the actual class began, Ms*. [name of ESP lecturer]*, often gave us a quiz activity through Quizzes to prepare ourselves for the class.* (Student 1)

> *In my class, the lecturer assigned us to do the Quizzes not only at the beginning, but also when the class is almost over. I think that's for checking our understanding about the topic.* (Student 6)

According to the information provided above, the instructor stimulated questions using *Quizzes* media before and after studying. In that instance, students imagined that the lecturer wanted to evaluate student understanding before and after the discussion in each session.

In addition to *Quizze*s, other learning applications, such as *Google Form* and *Mentimeter*, were also used in some quiz activities at the synchronous meetings although they were not as frequent as *Quizze*s.

> *I also remember that my ESP lecturer gave me a quiz through Mentimeter about Digital Entrepreneurship*. (Student 2)

> *If I am not mistaken, Google Form was also used twice in my class, first was for reading quiz and another one is* [silence] *err… I forget.* (Student 5)

Based on the students' explanations, the teacher also used additional media to check the students' understanding of the material provided, such as *Google Forms* and *Mentimeter.* It could have been thought that using different media would avoid monotony in assessing students' understanding.

Presentation was another activity which was chosen by almost a quarter of the participants. It is, therefore, noticeable that such an activity is also frequently conducted in the ESP class. Furthermore, the participants explained that this activity was usually in the form of group presentation, in which the lecturer assigned them to prepare the presentation beforehand.

> *We usually worked in a group of three until five. Then, lecturer would give a topic for our presentation, and we had to prepare it for a week before the D-day.* (Student 2)

In certain activities, students are divided into groups of three to five to discuss in depth the assignments assigned. Students stated that they have more time to conduct discussions and create effective power points for the assignments. This can help students focus and prepare for as they have more time.

An interesting finding was also that the presentations were in the form of not only PPT slides, but also videos or products, such as posters, short movies, and even a dummy. Besides, the length of preparation time depended on the complexity of their presentation assignment.

> *But if it was a product presentation. The preparation might take longer, let's say, around 2-3 weeks.* (Student 3)

In other explanations, students stated that in some more challenging assignments, such as creating a video or a poster, the teacher offered them a much longer time to complete their work, more than a week, in order to have a satisfactory result.

Lastly, games were reported as the least frequent activity conducted in the ESP synchronous class. The online discussion participants explained that this activity was predominantly conducted at the beginning of

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the class as a brainstorming activity. Hence, games could be noticed as an additional ice-breaking activity to get students ready for the actual learning activities.

> *I only remember, there was one time when the lecturer started the class with Simon Says.* (Student 2*).*

One technique that the teacher used to get the students' attention was to play a game called *Simon Says*. Playing a game of this type is difficult in an online class with a limited space. A student remarked that playing the game in online learning atmosphere was a new experience, yet it was enjoyable. It is also noteworthy that some students also assumed that their activity using *Quizzes* was actually a game. This was due to the competitive and engaging atmosphere created in the activity.

> *I suppose the only game played in my synchronous class is during the Quizzes time! We really worked hard to beat others to be the winner. But we had really so much fun.* (Student 2)

Some other students stated that *Quizzes* were not simply a quiz, but also a game because every student competed to earn the highest score. It is undeniable that students like not only the online class, but also the online assignments.

Asynchronous activities

This section illustrates the outcomes of types of activities that were typically conducted during the asynchronous session of the ESP class. Four main activities, namely discussion, watching videos, doing assignments or projects (either individually or in groups), or an online exercise were the options of both synchronous and asynchronous activities and the participants could choose more than one. The survey findings were also supported by qualitative data from the online focus group.

Table 5 shows the activities that were conducted asynchronously. First, the majority of participants chose homework (55%). A group project or assignment as the second choice (33%). Discussion occupied the third place (22%) and finally watching interactive videos (12%).

Asynchronous activity	Percentage
Homework / exercise	55%
Group project	33%
LMS discussion	22%
Watching video	12%

Table 5: Students' activities during the asynchronous class

The most common activity, doing homework or independent exercise, was carried out in the LMS developed by the university. The LMS included both asynchronous and synchronous activities that were arranged and uploaded by the lecturer of each course, including ESP. From the qualitative data, it was discovered that the exercises covered receptive (reading and listening) and productive (speaking and writing) skills, grammar, and vocabulary. An interesting finding also indicated that grammar and vocabulary exercises were not given in isolation, as these aspects were mostly integrated with the other language skills.

> *The exercises for our independent studies mainly varied. Sometimes, the lecturer gave us a reading text about Visual Communication Design, and we were asked to answer the questions from the text. There was also some homework about vocabulary and grammar, where we were asked to write a sentence using vocab and tenses that we have learned in the synchronous meeting.* (Student 1)

> *The most memorable exercise from Ms.* [name of ESP Lecturer] *was that we were supposed to record our voice while talking about our future business plan using simple future and future perfect tense on Padlet. I really loved it because I could express myself more with the task. Sometimes, she also gave a listening exercise where we need to write the answers on Padlet. In fact, she used Padlet often for our homework. (Student 2)*

Based on the students' explanations, the teacher assigned various exercises based on the materials in all four English skills, such as answering questions from the reading passage for reading skills practice, using new vocabulary in sentences and practicing grammar rules in sentences for writing skills practice. Another type of exercise was recording their voice in order to answer questions or deliver a task for speaking skill practice. For listening skills practice, students could share their answers through the *Padlet* application after hearing the question.

With the second most frequent activities, the qualitative data revealed that the forms of group assignments varied, for instance, making a *Power Point* presentation, creating a poster or a business plan for a mini exhibition, or making a *YouTube* video. The number of each group's members also ranged from

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two or three for presumably simpler projects, like the presentation and poster. Meanwhile, the size of the groups could be expanded to five people for projects that needed greater effort and took a longer time to complete, such as creating a product for classroom exhibition or developing an English-written business plan. The group formation itself was always assigned by the lecturer; in other words, the students could not choose their own partners.

> *For presentation assignment, the lecturer usually divided us into pairs*. (Student 1)
>
> *For my presentation and poster projects, it was usually work of two or three students. The lecturers chose the members of the groups randomly. Well, it's not only for my presentation project. She* [the lecturer] *always chose whom we worked with for every group project.* (Student 3)
>
> *I remember working with four other students for a business plan project*. (Student 4)

According to the students' elaboration, they were divided into pairs or groups to complete a project. Working in a group was not applicable to all assignments, but only for certain ones related to the assignment criteria, such as project presentations, poster creation, and business plan preparation. It was also true that several projects, especially large projects like a classroom exhibition or product presentation, took from two to four weeks to finish.

> *A few weeks before the final-term exam, she* [the lecturer] *gave us a big project where we made a product to be presented in the mini-exhibition. My team and I put our best effort to design and presented the product in English.* (Student 6)

An asynchronous group discussion was another independent activity conducted by students through the LMS. The lecturer posted a thread to online discussion forum in the LMS; and then, the students replied to the post by typing down their responses on the thread. The qualitative data also showed that sometimes the lecturer made use of *Padlet* for the discussion. Through *Padlet*, students could make not only written replies, but also use voices, photos, and videos.

> *Most of the time, we typed our responses to answer the lecturer's question in the thread. I can also recall that there is one moment when I replied to the thread by recording my voice.* (Student3)
>
> *Using Padlet for a discussion thread is quite common in my class along with the conventional thread in the LMS.* (Student 6)

In accordance with the students' reports, using threads in discussion forums was another technique to help students learn individually. Students could share their comments on the teacher's topic discussion via the LMS in asynchronous mode. This activity also encouraged students to share more of their critical thinking and provide feedback directly in the LMS or *Padlet* used by the teacher.

Another noteworthy result was that LMS discussion was occasionally combined with another activity, such as watching a video. In this case, the ESP lecturer posted a video and asked for the students' perspectives.

> *The thread sometimes contained a short video where we needed to watch it and answer the questions from it. Well, it was mostly about expressing our impression about the video.* (Student 2)

Lastly, watching a video was often also needed to be done prior to the online meeting with the lecturer because the discussion material came from the video.

> *There was a time when I panicked and felt clueless about the class discussion due to my carelessness of not watching a tutorial video about business plan.* (Student 2)

Students' perceptions

Effectiveness of blended learning

Table 6 indicates that the majority of participants held positive views on the blended learning in the ESP classes. Exactly a half of the students found it very effective, 37% found it reasonably effective, 11,4% found it extremely effective, and fewer than 2% said the it wasn't effective.

Blended learning activity	Percentage
Extremely effective	31.10%
Effective	50%
Slightly effective	1.50%
Fairly effective	11%

Table 6: Perceptions of effectiveness of blended learning

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In addition, the qualitative data confirmed that the use of LMS and other learning application make it easier for them to access the class and learn independently.

> *I suppose my ESP class was effective because all the materials were effectively presented through face-to-face and independent meetings. Thanks to the technology of* [mentioning the LMS developed by the university] *for helping us in keeping up with all learning materials.* (Student 1)

> *Besides, the use of other apps like Padlet and Quizziz help us to learn effectively and independently though we did not attend the real physical classes.* (Student 4)

The students agreed that combining synchronous and asynchronous modes was very beneficial to the learning experience, and of course, the technological advancements at the university, particularly the LMS program, were vital to the success of the teaching-learning activities.

Perceptions about the synchronous mode

In Table 7 it can be seen that there was a positive perception by the majority of participants (54.3%), while 38.6 % participants had an extremely positive view about the synchronous mode. In contrast only 7.1% felt it was only fairly effective and no participant had a negative opinion about it.

Synchronous mode perceptions	Percentage
Effective	54.30%
Extremely effective	38.60%
Fairly effective	7%

Table 7: Perceptions about the synchronous mode

The participants explained that the lecturers were extremely helpful throughout the whole semester. They constantly encouraged the students to engage actively in the blended classrooms.

> *Ms*. [name of ESP lecturer] *was always there to teach and guide us during the ESP class. She explained all the materials clearly and always encouraged active learning in both the classroom* [synchronous] *and LMS* [asynchronous]. (Student 2)

> *I can't agree more. The lecturer always tried to create fun learning activities through various activities and projects. She also used some learning applications. I suppose, that's really creative.* (Student 6)

According to the students' statements, the lecturer provided full assistance to students during the studying process, also created a good learning environment in both synchronous and asynchronous sessions. Furthermore, the lecturer demonstrated her skill by arranging distinctive classes for each meeting so that students were not bored and were constantly challenged to participate.

Perceptions about the asynchronous mode

Roughly like the previous finding, the majority of participants (44.3%) perceived the asynchronous activated positively. Moreover, almost a third of them had very positive opinions. Finally, just over a quarter felt that the implementation was fair, and none had a negative opinion.

Asynchronous mode perceptions	Percentage
Effective	44.30%
Extremely effective	28.60%
Fairly effective	2%

Table 8: Perceptions about the asynchronous mode

For the qualitative data, roughly similar to the finding that of the bended learning, the participants explained that the dominant use of LMS and relevant learning applications were deemed useful during their asynchronous learning experience; hence, the learning activities could be conducted effectively.

> *We use LMS in every single asynchronous activity because it contains all the materials and exercises to be done. Besides other learning apps* [Quizzes, Mentimeter, etc.] *were also of a great use.* (Student 3)

According to this student, an LMS encompasses all of the necessary resources and exercises for both synchronous and asynchronous learning activities. Additionally, various learning apps, such as *Quizzes, Mentimeter*, and others, were deemed valuable for their class. Furthermore, modern technologies and applications made teaching and learning more enjoyable and challenging.

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Discussion

The current research has shed light on several noteworthy insights about how students perceive the implementation of blended learning in ESP classrooms. The findings suggested that a personal laptop and Wi-Fi were students' main access to an ESP class. These results conformed with those of Inayati and Karifianto (2022) who found that students mostly used their personal laptops and stable internet connection to learn English independently at home. Also, Bjørgen et al. (2021) mentioned that using gadgets like tablets or laptops has already been common in classroom contexts. These findings were inseparable from the accessibility to relatively affordable gadgets and internet networks in Indonesia (Lamb & Arisandy, 2019), making Indonesia one of the nations with the largest number of internet users, over 220 million users in 2022 (Muthiariny & Arkyasa, 2022).

In terms of students' activities in blended classrooms, there were a combination of both synchronous and asynchronous activities in the findings. This findings align with the classification of instructional approaches proposed by (Horvitz et al., 2019) who identify "(a) a hybrid or blended course with asynchronous online lectures; (b) a hybrid or blended course with synchronous lectures; (c) a hybrid or blended course with a combination of asynchronous and synchronous lectures and discussions; or (d) a course that is fully online" (p. 242). For synchronous modes, various activities, such as discussion, lecture, quiz, and presentation were all conducted in real-time (Newton, 2004; Norberg et al., 2011), in which in the present research, the ESP lecturer and students were 'simultaneously present' (Perveen, 2016) during online meeting through a video-conferencing platform, *Zoom*. In addition, online synchronous discussion mediated by the ESP lecturers took up the major portion of synchronous activities in the ESP classes which agreed with Asterhan and Schwarz (2010), who found that a significant role of lecturers as active leaders was keeping the live discussions focused and ensuring students' focus on the topic. Besides the use of *Breakout Zoom* feature for smaller group discussions and group presentatiosn was deemed beneficial as students could interact with other members of the group and improve their communication skills. This finding was similar to that of Lee (2021) (for group discussion) and Im (2021) (for group presentation), who found similar data in Korean classroom contexts. Meanwhile, the synchronous quiz activities through several quiz platforms, like *Quizizz, Quizlet*, and *Mentimeter*, were found to be effective to engage students' participation during face-to-face meetings (Khan et al., 2021; Lima et al., 2020).

Moving on to asynchronous activities, findings showed several types of activities in asynchronous meetings, such as exercises, group discussions, group projects, and watching videos. Some of these activities were somewhat similar to those of synchronous modes; for instance, discussion groups. In fact, asynchronous e-learning can be similar to its synchronous counterpart (Shahabadi & Uplane, 2015) as seen from the types of activities in which a student-centered learning was present. The major difference lay on time constraints (Norberg et al., 2011), where the synchronous modes relied much on simultaneous face-to-face meetings, while their asynchronous counterparts did not necessarily occur in real-time although, the activities still had a defined period of time.

Another prominent finding was the use of LMS in both activities in the ESP classes. Both synchronous and asynchronous activities made a great use of LMS as a platform to access the *PowerPoint*, modules, reading materials, videos and quiz links that were used during the class. Therefore, the students could access all learning materials anywhere and at any time. For the asynchronous modes, moreover, students could contribute to the discussion forum by posting their comments on LMS. This finding reflected a phenomenon of digital technologies, like LMS, that have been particularly designed for greater utility in the classroom (Moorhouse & Wong, 2022). Perveen (2016) also added that asynchronous learning made possible for audio/video lectures, handouts, and presentations reachable to students through LMS. Therefore, the LMS has become inseparable digital supports for blended-learning access.

Students generally held positive views on blended-learning activities in the ESP classrooms. They mentioned two aspects that supported the blended-learning activities, namely the use of learning technologies and a supportive ESP class lecturers. These findings were in line with Mulyadi et al., (2020) who found that technologies and lecturers' systematic and supportive classroom management were some of essential factors that enhance blended learning in ESP. Therefore, it could be said that technologies and supportive classroom environment were well-implemented in the ESP classroom.

These results, however, were different from those of Poedjiastutie (2017) and Sari (2018) who found that ESP students tended to hold negative perception due to several aspects, such as inadequate English proficiency, insufficient ESP materials, and residential location. The participants of these study mostly

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came from large Indonesian cities where English and technology exposure were considered sufficient. This it may explain their positive standpoints of the study.

Conclusion

The present study explored how ESP students in the university level perceive the implementation of the online blended learning activities in their ESP classrooms. Some notable findings were related to a description of the students' main access to their ESP blended classes, the types of activities carried out in both synchronous and asynchronous classroom activities, students' positive perspectives on the ESP blended classroom activities, as well as the significance of the technology and supportive classroom management. The implications regarding these findings that could be drawn include the necessity of integrating technology-based activities during synchronous and asynchronous meetings and the development of the ESP lecturers' capacity to manage blended classrooms.

By focusing on students' perceptions, the present study led to a fundamental consideration for language teachers to adopt blended online learning activities in their classrooms. Sitthiworachart et al. (2021) reported that a higher education lecturer could confidently use various strategies and instruments rather than rely on a single delivery mechanism or a single pedagogy. As a direct consequence of this approach, the overall learning results of students can improve. However, the limitation of this study was that it only looked at one class. Other groups of students may have produced different results; therefore, it is impossible to generalize the findings of this study. However, the study was mainly limited to its participants who mostly resided in big cities with an ample access to technology and considerable exposure of English. Therefore, future researchers are expected to dig out more insights from participants with various backgrounds and English exposure.

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