The Perception of English for Specific Purposes (ESP) Language Learners about Blended Learning in Higher Education

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Abstract

The increasingly tighter impact of socio-economic and spatial constraints on higher education sectors in the recent years has necessitated innovations in education. Blended learning, as an innovative instructional approach, which combines several online and face-to-face delivery strategies, is a good alternative used to compensate for the socio-economic and spatial pressures at higher education. The practice of blended learning, however, has sometimes been associated with failure and poor educational outcomes. A pitfall which has repeatedly hindered the full operationalisation of blended learning courses is unfamiliarity with the perceptions of the students/learners in the target context. The present study, thus, employed a mixed-method design to investigate the perceptions of ESP (English for specific purposes) language learners about blended learning in higher education. To this end, pre- and post-blended learning perception questionnaires were sent to 100 male and female ESP language learners. Pre- and post-blended learning semi-structured interviews were also conducted. Subsequently, the obtained data were analysed using descriptive statistics, t-test, and factor analysis. The interviews were analysed by the MAXQDA software, and the underlying themes were identified. The findings showed that the students had a better perception of blended learning after enrolment in such courses. Further investigations revealed significant differences between the students' perception prior to and after participation in the blended learning course. Moreover, 'Infrastructure & equipment', 'Learning content', and 'Potentials of blended learning' were identified as the factors underlying the students' perception about blended learning. Familiarity with the students' perceptions about blended learning can be of great help to educational planners, curriculum developers, and teachers in that it can prevent the potential failure and poor educational outcomes by pointing out the appropriateness or otherwise of conducting a blended learning course in the intended context. Awareness about the factors which have shaped the students' perception about blended learning can also help eliminate some of the barriers to the full operationalization of blended learning courses.

Keywords: *Blended Learning; ESP; Higher Education*

Introduction

The origins of blended learning date back to the advent of digital technology. Its genealogy lies in distance learning through correspondence courses (Bryan & Volchenkova, 2016). The rise of personal computing and the introduction of the World Wide Web in the 1980s and 1990s stimulated the development of different blended learning models at different levels of education. With the introduction of digital technology into the field of private sector training, blended learning was gradually included in the related literature (Bryan & Volchenkova, 2016). A point of departure of blended learning from other on-line methods is that the former simultaneously includes "face to face" and online teaching methods (Friesen, 2012). The online mode of blended learning is thought to be advantageous in several ways. Blended learning is believed to be beneficial in that it facilitates access to quality education (Lauren et al., 2014; Okaz, 2015) and benefits the students in terms of pace and space (Simbolon, 2021). Besides, "the implementation of online learning, which commonly requires the use of gadgets like laptops or mobile phones, allows students to learn in any place, even when they are mobile" (Simbolon, 2021, p.154). Furthermore, the use of Information and Communications Technology (ICT) instruments can provide the students with digital learning strategies (Cakrawati, 2017; Kim & Bae, 2019), skills that are necessary in today's world (Schwab, 2015).

Blended learning has been defined in various ways. According to Procter (2003), blended learning is a teaching/learning model which combines different delivery modes, teaching methods, and learning styles effectively. Graham (2006) defined blended learning models as learning systems that employ face-to-face instruction in conjunction with computer-mediated teaching. Other definitions of blended learning accord with that of Graham (2006) and Friesen (2012). Staker and Horn (2013) define blended learning as a formal education program in which the teaching/learning material are at least partly presented through online means with the students having at least some partial control over their learning (time, place, path, and/or pace). Drawing on and borrowing heavily from Staker and Horn (2013), Watson and Murin (2014) describe blended learning as a formal education program in which the modalities along each student's learning path within a course or subject are connected to provide an integrated learning experience. Likewise, blended learning has been defined as a method of teaching in which effective face-to-face teaching techniques and online interactive collaboration are assimilated to constitute a system that functions in constant correlation and forms a single whole (Krasnova, 2015).

In the present study, Friesen's (2012) definition of blended learning has been adopted. The definitions of blended learning offered by Graham (2006) and Friesen (2012) include a bimodal delivery, a face to-face or 'co-present' element, and a computer mediated element. Nevertheless, the ways in which these elements are combined in different learning contexts and the weight given to each allow for numerous models to be proposed.

With the rapid development of human societies and spread of metropolitans, providing time-effective, cost-effective quality education has become of great prominence. Blended learning is extremely apt for taking quality education into remote time and spaces by eliminating or decreasing the need for the physical presence of learners or a physical place for conducting classes (Watson, 2008). An appropriate blended learning approach ensures that the learner is engaged and driving his or her individual learning experience. Unfamiliarity or poor understanding of blended learning models, underlying belief and value systems, misconceptions about blended learning models and poor technological infrastructure are some of the factors which may hinder the full operationalisation of blended models (De Montreuil Carmona & Irgang, 2020; Sayed & Baker, 2014). Overcoming the numerous challenges and barriers facing the full operationalisation of blended models necessitates familiarisation with the underlying factors through large-scale systematic research. In this way, the degree of the divergence of the adopted teaching approaches from standard blended learning models is realised, and practical steps can be taken to compensate for it.

Blended learning is perceived to be the most productive type of learning in some dimensions (Lubkov et al., 2020). Findings indicate that compared with face-to-face courses, blended learning improves learners' success and satisfaction, (Dziuban & Moskal 2011; Dziuban et al. 2018; Khojasteh, Hosseini & Nasiri, 2021; Means et al. 2013) as well as their sense of community (Rovai & Jordan 2004). Several meta-analyses have pointed out the positive impact of blended learning environments on pedagogical effectiveness in the last ten years (i.e. Zhao et al. 2005; Sitzmann et al. 2006; Bernard et al. 2009; Means et al. 2010, 2013; Bernard et al. 2014). Blended learning has also been associated with higher levels of satisfaction and pedagogical effectiveness (Chen & Jones, 2007). The correlation between blended learning and learning styles are encouraging (Akkoyunlu & Soylu, 2008). Features such as being appropriate to the learning context, being reachable, promoting autonomy and increasing learner-teacher/learner-learner interaction have been investigated with respect to blended learning (Chandra & Fisher, 2009).

The pedagogical effectiveness of blended learning in terms of grades (i.e. Kenney & Newcombe, 2011), course completion, retention and graduation rates (i.e. Demirkol & Kazu, 2014; Garrison & Kanuka, 2008) has also been a topic of inquiry in earlier studies. The students' perceptions about blended learning and underlying factors are the other topic which has been addressed (i.e. Alaidarous & Madini, 2016; Annamalai, 2019; Ashraf, Tsegay, & Meijia, 2021; Chen et al., 2016; Çırak Kurt & Yıldırım, 2018; Gyamfi, 2015; Gyamfi & Sukseemuang, 2018; Getzlaf et al., 2009; Huang, 2016; Ja'ashan, 2015; Ying & Yang, 2016; Malasari, Kurniawati & Martanti, 2021; Rerung, 2018; Rianto, 2020; Sari & Wahyudin, 2019; Shehab, 2007; Simbolon, 2021; Whitelock & Jelfs, 2003; Wright, 2017; Yamin 2020). Some studies have shown that university students have a positive perception of blended learning. Despite its rewards, blended learning can be challenging for teachers (Mirriahi et al. 2015) and students (Hofmann, 2014). Lack of IT knowledge (Holley & Oliver, 2010; Okaz, 2015), various technical issues, and network instability (Rerung, 2018; Rianto, 2020; Sari & Wahyudin, 2019; Yamin 2020) and maintaining students' learning engagement have been pointed out by research as factors affecting the full application of blended learning models.

Blended learning has also been the topic of research in Iran (i.e. Ghazizadeh & Fatemipour, 2017; Zarabian, 2018; Zaraii Zavarki & Toofaninejad, 2017). However, there are few studies on students' perceptions about blended learning, particularly using WhatsApp or ADOBE CONNECT as the learning tools. Moreover, to the best of the authors' knowledge, research on identification of possible changes in the students' perception about blended learning after enrolment in such courses is very shallow. The present study, therefore, was conducted to investigate the students' perceptions about a blended learning course prior to and after participation in such a course. It was assumed that an assessment of this factor would contribute to a better understanding about the appropriateness or otherwise of blended learning models to the Iranian and similar contexts.

On the other hand, the prevalence of the uneven distribution of educational resources such as high-quality teachers and limitations of educational spaces have resulted in overcrowded classes or poor quality education in many of the involved countries. As an alternative, education authorities in such contexts have attempted to replace conventional teaching with more innovative ones like blended learning. Nonetheless, lack of a deep understanding about the underpinnings of blended learning models and unfamiliarity or a poor understanding about the constituting components of the educational context to which they are being applied has turned such programs into a total failure in many cases. Studies on blended learning (including the present study) can help prevent the waste of time and resources by pinpointing some of underlying factors which may be influential on the success or failure of blended learning models. In particular, the present study is an attempt to deepen the understanding about applying blended learning models to classes with different age groups in that it familiarises the stakeholders with the perceptions of the learners about them. In this way, appropriate blended learning models can be devised or decisions about applying them can be reconsidered altogether. Awareness about the perception

of the learners about blended learning can also help stakeholders to implement a blended learning mode which is most appropriate to the particular context. In this way, the effectiveness of blended learning courses and its contribution to the students' overall learning can be enhanced. Therefore, the present study was conducted to investigate the ESP learners' perceptions about blended learning in ESP classes. We also aimed to find out whether the practice of blended learning has any impact on the students' perception about such courses.

Based on the objectives, the following research questions were posed:

1. How do the students perceive blended learning in an ESP context?

2. Does the actual enrolment of the students in a blended learning course have an impact on their perceptions about it?

3. What are the factors underlying the students' perception about blended learning?

Material and method

Participants

The participants in this study consisted of 100 male (N=50) and female (N=50) ESP language learners who were majoring in management, chemistry, physics, Persian literature, and civil engineering. They were selected randomly. They were aged between 18 and 40 and were involved in general English courses as a prerequisite for fulfilment of a BA degree. Including this age range in the study was particularly apt for the purpose of the present study since it enabled blended learning to be investigated among two generations of Iranian students. The first group of students which were aged between 25-40 are referred to as the previous generation of Iranian ESP language learners who have experienced a twenty-year time interval between the time that they received their associate degree and their participation in courses as a prerequisite for fulfilment of a BA degree. These students had not attended an academic setting for over two decades; many changes have occurred in the intervening years.

The study also included a second group of language learners who were aged 18 to 25 and differed from the first group in that they had attended university upon graduation from high school. In other words, there was no time interval between this group of students' graduation from high school and admission at university. A more recent mind-set, a better understanding of technology and familiarity with more innovative teaching approaches are the characteristics associated with this group of students. Also, the number of the students in the two age groups was equal. Caution was exercised to include the same number of male and female students. Also, note that the participants did not have a former blended-learning experience. The study also included a third group of participants (N=10) which were interviewed. This group consisted of male (N=5) and female (N=5) ESP language learners aged between 18 and 40 years.

The Questionnaire

An instrument used in the present study was the 25 item five-point Likert scale interactive learning questionnaire. The questionnaire was developed in several steps. In the first step, the literature on blended learning was extensively reviewed and the underlying constituting concepts of blended learning were identified. In the next step, 200 items were written based on each of the identified concepts. In the third step, the items were meticulously checked and re-checked. In this stage, the redundant or

overlapping items were merged or deleted. At the end of this stage, a 30-item questionnaire was developed.

The questionnaire items were then checked for reliability and validity. The Cronbach alpha coefficient in the present study was .88, which is indicative of a good internal consistency of the blended learning questionnaire. For checking the validity, the questionnaire was sent to 189 people. Prior to performing the factor analysis, the suitability of the data for factor analysis was assessed. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The Kaiser-Meyer-Oklin value was .829, exceeding the recommended value of .6 (Kaiser, 1974) and Bartlett's Test of Sphericity reached statistical significance (P=.000), supporting the factorability of the correlation matrix. Factor analysis revealed the presence of seven components with eigenvalues exceeding .1, explaining 22.4%, 8.6%, 6.6%, 4.7%, 4.3%, 4%, and 3.7% of the variance, respectively.

An inspection of the scree plot revealed a clear break after the second component. Using Catell's (1966) scree test, two components were retained for further investigation. This was further supported by the results of the Parallel Analysis, which showed only two components with eigenvalues exceeding the corresponding criterion values for a randomly generated data matrix of the same value. The two component-solution explained a total of 40.0% variance, with component 1 and component 2 contributing to 24.35% and 8.6% of the variance, respectively. To aid in the interpretation of these two components, Oblimin rotation was performed. The findings showed a number of items which strongly loaded on both of the factors. For that reason, items 24, 17, 25, 14, and 19 were removed from the final version of the questionnaire. The final draft of the questionnaire contained 25 items.

The Interview

The interviews consisted of five questions which were developed based on the literature. They were general questions about blended learning which provided the students with the opportunity to express their opinion freely. The questions on the interview were developed in some stages. In the first stage, the literature on blended learning was extensively reviewed and the underlying items were identified. In the next stage, the similar items were grouped together and the themes underlying each group was identified. In the third stage, the questions were developed based on the identified themes. To ensure that the questions on the interview covered the identified themes, we asked two experts to check them. In the last stage, the questions were translated into Persian. To confirm the consistency between the English questions and the Persian equivalents, we asked two professional translators to translate the Persian questions into English. Subsequently, the original English questions and the translated English questions were compared, and the necessary modifications were made.

The Blended Learning Course

The blended learning course constituted of simultaneous "face to face" and online teaching methods. Unlike some blended learning approaches (i.e. Filliped instruction) which present the course content using an online platform and devote the face-to-face class time to other activities, the blended learning model adopted in the present study operated on the simultaneous introduction of the course content via "face to face" and online methods. The material in the online part were delivered in the form of clips and PowerPoints via WhatsApp (offline). The instructors also taught the classes via Skype or Adobe connect (online). The students were able to post their questions or comments on WhatsApp and receive feedback. The classes conducted on Adobe connect or skype allowed for live online teaching and interaction. The face-to-face classes were conducted like conventional classes.

Data Collection Procedure

The data for the present study was collected from 2018-2019 from five different universities which offered ESP language courses as a prerequisite for the fulfilment of a BA degree. The reason for this is the scarcity of blended learning courses in Iran and the extreme complications associated with conducting them (i.e. receiving authorizations for conducting such courses). One of the main impediments in the path of conducting this study was that the Iranian universities do not offer blended learning courses. Hence, the authors of the present study were obliged to convince friends and colleagues to adopt a blended learning approach in their classes for 12 weeks. Prior to conducting the classes, the instructors who had agreed to adopt a blended learning course were contacted and familiarised with the intended blended learning model that they were required to apply.

The data collection was completed in several phases. In the initial phase, the participants who had agreed to take part in the study were checked for former blended learning experiences. This was pursued by directly asking the students about their learning experiences via WhatsApp, email or text messaging. At this point, the participants who had previously enrolled in blended learning courses were excluded from the study. In the second phase of the study, the link of the website containing the online version of the pre-blended learning experience questionnaire was sent to the participants by WhatsApp, Telegram, or email with instructions on how to complete. In the second phase, the participants enrolled in an ESP blended learning course for 12 weeks. During that time, the English lessons were presented through ADOBE connect, Skype or WhatsApp. The participants also enrolled in face-to-face classes once every two weeks. Caution was exercised to observe the balance between the topics which were presented in the online and face-to-face classes.

In the next phase, the link of the website containing the online version of the post-blended learning experience questionnaire was sent to the participants by WhatsApp, Telegram or email. As to the third phase, the participants were provided with precise instructions on how to complete the questionnaire. In addition to the questionnaires, data on the perception of the participants about prior and post blended learning experiences was obtained by interviewing them before and after enrolling in the blended learning course. To this end, the participants were connected via WhatsApp voice calling or phone call. The answers that the participants gave to the questions were recorded using the smartphones built in voice recorder. The participants were informed about the voice recording prior to the interview. Each contacted person was asked the same type and number of questions. Although no time limits were set, the average time for each interview was about 20 minutes. The interviews were conducted in Persian to avoid misunderstandings and further complications.

Data Analysis

Means and standard deviations were run to identify possible mean differences between the perceptions of the ESP language learners prior and after taking part in the blended learning course. We also used a t-test to identify possible significant differences between the perceptions of the participants before and after their participation in the blended learning course. Factor analysis was further employed to identify the underlying factors in terms of the students' perceptions. In addition to the data analysis tools in the quantitative phase, the data from the interview were transcribed and subsequently analysed by the MAXDA software.

Results

The mean for the students' perceptions prior to (X=80.57) and after (X=82.31) taking part in the blended learning course indicated that they had a better perception of such courses after enrolling in them. The findings showed an increase in the mean of all the items on the post blended learning perception

questionnaire, specifying that the students had a more positive attitude towards such courses after being subjected to them. Moreover, the mean for the negatively worded items on the post blended learning questionnaire (i.e. incompatibility of required blended learning software with the available equipment) decreased compared to the mean for the same items on the pre-blended learning perception questionnaire. This could also be interpreted as a sign of modifications in the students' perceptions about blended learning (see Table 1).

Table 1
Mean for pre-blended and post-blended learning

	Pre	Post
Online material can be accessed at anyplace	2.23	2.25
On-line learning material can be accessed effectively and rapidly.	2.25	2,31
Online materials can be accessed at anytime	2.98	3.30
Unstable power resources hider conducting blended courses.	4.17	4.10
Online material can be studied at one's own pace.	1.66	1.70
Blended learning increases student involvement in the learning process.	3.50	3.53
With blended learning the information is obtained by more than one way.	4.07	4.23
Incompatibility of required blended learning software with the available equipment	4.05	3.69
Having access to online resources expands the information obtained in class	3.70	3.74
Blended learning is an effective way to use resources	2.60	2.64
An advantage of blended learning is greater flexibility in arranging class activities.	3.15	3.22
Online material ease learning.	3.04	3.45
Online courses enhance understanding.	2.25	2.28
Face-to-face sessions are more meaningful if they are used in combination with online learning experiences	3.32	3.49
ore types of interaction in learning such as face-to-face learning with online videos and in general with online teaching materials increase motivation.	3.86	3.90
Path of information from classroom lectures through documents in the web will result in a good understanding of the instructional material	2.99	3.00
Blended learning is a tool that can be implemented in ESP classes.	3.35	3.65
Combination of an online class delivery and traditional in class delivery is most effective than solely using face to face delivery of information.	3.30	3.64
Blended learning courses increase the likelihood of asking questions.	3.81	3.74
The speed of the internet is too slow for conducting blended learning courses.	4.53	4.18
Blended learning promotes self-regulated learning	3.29	3.32
Receiving feedback is easy in a blended learning class.	2.84	2.90
The high price of tablets, laptops, smart phone and PCs hinders conducting blended learning courses	4.44	4.33
Online Learning promotes learning.	2.17	2.69
Blended learning is time and cost effective.	3.02	3.03
Total	80.57	82.31

Further investigations revealed the significant differences between the mean for the students' perceptions prior to and after participating in the blended learning course. Given the increase in the overall mean for the perception of the students after the practice of blended learning compared to the total mean for their perception prior to enrolment in the blended learning course, it can be concluded that participating in the blended learning course had improved the students' perception about blended learning. Table 2 illustrates the results for the t-test.

Table 2
The result of t-test for pre- and post-blended learning

	Total
t	2.58
df	99
Asymp. Sig. (2-tailed)	.011

The results of the factor analysis showed that 'Infrastructure & Equipment', 'Learning Content' and 'Potentials of blended learning' were the factors underlying the students' perceptions about blended learning. Four items with factor loadings above 0.4 loaded on the first factor. Since the items involved the Internet, gadgets, power, and software, the first factor was labelled 'Infrastructure & Equipment'. Five items with factor loadings above 0.5 loaded on the second factor. The items dealt with the content of a blended learning course. Therefore, the factor was named 'learning content'. The third factor consisted of four items with factor loadings above 0.7. The factor was named 'Potentials of blended learning' because the items loading on it addressed the advantages of blended learning.

Table. 3
The result of Factor analysis

	F 1	F 2	F 3
Infrastructure & Equipment			
4. Unstable power resources hider conducting blended courses	-670		
8. Incompatibility of required blended learning software with the available equipment	.666		
20. The speed of the internet is too slow for conducting blended learning courses.	.424		
23. The high price of tablets, laptops, smart phone and PCs hinders conducting blended learning courses.	.409		
Learning Content			
1. Online material can be accessed at anyplace		.614	
2. On-line learning material can be accessed effectively and rapidly.		.768	
3. Online materials can be accessed at any time.		.724	
5. Online material can be studied at one's own pace		.511	
12. Online material ease learning.		.577	
Potentials of blended learning			
10. Blended learning is an effective way to use resources			.780
13. Online courses enhance understanding.			.753
26. Blended learning is time and cost effective.			.707
16. Path of information from classroom lectures through documents in the web will result in a good understanding of the instructional material			.704

The results of the interview confirmed the findings of the factor analysis and those of the descriptive statistics. The identified themes underlying the students' perception about blended learning were 'infrastructure & equipment', 'Learning content', and 'Potentials of blended learning'. Further investigations also showed how the students had formed a better perception of blended learning after enrolling in one. For instance, one of the participants pointed out that conducting a blended learning course was very challenging and attributed it to issues related to the equipment and infrastructure. Although confronting with some problems while enrolling in a blended learning course, the same student admitted that her experience of participating in such a course was better than she had previously assumed:

… There are many problems…there are many uncountable unaddressed issues…the internet, the cost of buying a good cell-phone [up-to-date] …many…many things…the internet package finishes… (Participant number 1)

…It was not that bad…the session kept disconnecting…the voice [sound] was not clear…the files were too heavy to download…but we managed to survive… (Participant number 1)

Unlike participant number 1 who addressed the problems associated with the equipment and infrastructure in a blended learning course, participant number 2 believed that enrolling in such courses was not only unproblematic, but also beneficial. He referred to such factors as ease of access as the reasons for his claim. Like participant number 1, participant number 2 believed that the experience of participating in a blended learning course was better than he had thought:

*…I think it would be fun…your whole university course would be in your cell-phone…I would be studying while lying on the floor…eating stuff…I would be a click away from the books…but I think it's hard here [in Iran] … (**Participant number 2***)*

*…It was much better than I expected…I could sleep as much as I wanted and see the files anytime…I didn't need to dress-up or speak when I wasn't in the mood…the class was in my cell-phone and tablet…I even took a trip while attending the class… (**Participant number 2***)*

Participant number 3 was one of the other interviewed students who stated that the experience of participating in a blended learning course was better than she had thought. She attributed this to such factors as the higher incidence of asking questions and receiving feedback:

…well…I don't really know…it sounds interesting…something like discussing topics in chat rooms…uploading files and stuff…I have learned a lot in chatrooms…i think it would be the same…you could have access to the teacher like the admin of a chatroom…ask him many things in PV…receive many things…(Participant number 3)

…Much better…we had access to the teacher even at midnight…he was always there…I wasn't shy to ask questions because nobody stared at me [looked at me] …I didn't need to go all the way to university and stay at the dorm… (Participant number 3)

Discussion

The findings of the present study are consistent with those of earlier research which have pointed to the overall positive perception of the students about blended learning (i.e. Bordoloi, Das & Das, 2021; Shehab, 2007). The findings are also in the same line with those the of studies which identified

'Infrastructure & equipment', 'Learning content' and 'Potentials of blended learning' as the main factors underlying the students' perception about blended learning (i.e. Rachmadtullah et al., 2020). Investigating blended learning in higher education, Rianto (2020) concluded that while the EFL language learners perceived the e-learning aspect of blended learning in positive light, they referred to technical issues and a slow internet connection as its drawbacks. Likely, Rerung (2018) found that the majority of the students in an English listening and speaking course preferred receiving instruction by blended learning. Technical problems were identified as one of the main concerns of the students in this study. Other technical issues and insufficient network stability have also been recognised as the factors which have shaped the students' perception about blended learning and affected its full operationalization (i.e. Sari & Wahyudin, 2019; Yamin 2020). Some studies have also shown the students' positive perceptions of blended learning as represented in the provided feedback in a blended learning course (i.e. Chen, Nassaji, & Liu, 2016; Getzlaf, Perry, Toffner, Lamarche, & Edwards, 2009). Whitelock and Jelfs (2003), for instance, report on the students' satisfaction with online feedback and attribute it to the permanent access to the comments and feedback.

Downloading material and submitting assignments online have been recognised as the other factors underlying the students' positive perception about blended learning because they allow accessing the material and submitting assignments from anywhere at any time (Whitelock & Jelfs, 2003). Ying and Yang (2016) stated that the students' positive perception about blended learning was attributed to the flexibility of such approaches and the ease of access to the resources. The students in the study said that the ability to review and pace their learning was the factor that made blended learning enjoyable. Likewise, Ja'ashan (2015) concluded that in general the students' perceptions and attitudes towards bended learning were positive considering that they could decide when and how to use the provided resources. Nonetheless, the students specified 'the waste of time', 'ease of cheating', and 'social isolation' as the drawbacks of a blended learning approach. In another study, the ESP language learners stated that the implementation of blended learning in the classroom deepened their understanding about the materials, promoted independent learning, and enabled them to experience various kinds of learning media (Malasari, Kurniawati & Martanti, 2021).

Conclusion

'Infrastructure & equipment', 'Learning content', and 'Potentials of blended learning' underlay the ESP language learners' perception about blended learning in higher education in Iran. Further investigations pointed out that the students' perceptions about blended learning had improved after enrolment in the blended learning course. The findings here entail that despite the bias which may exist in favour of conducting conventional face-to-face classes and the voices which are articulated against the effectiveness of emerging technologies in education, the practice of technology-based educational approaches such as blended learning has the potential to eliminate some of the biases and improve the perception of the stakeholders about them. The findings also imply that many of the factors which are considered as the main obstacles to the path of conducting blended courses are not major problems and can be eliminated with some effort.

Declarations

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