B-learning in English language teaching in higher education: a systematic review

B-learning en la enseñanza del idioma inglés en el nivel superior: una revisión sistemática

B-learning no ensino da língua inglesa em nível superior: uma revisão sistemática

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Blended learning, educational technology, English teaching, higher-education.

ABSTRACT. B-learning is widely regarded as an approach that combines the benefits of both the online and face-to-face learning components. However, the combination of online and face-to-face instructional components of this approach has raised concerns over the years. The following systematic review aims to show how b-learning influences the teaching of the English language in university students through the analysis of experiences and perceptions. The use of the Prism methodology has been considered for research purposes. For this review, the following databases were used: Scopus, Scielo, Science direct and Redalyc, finding 260 articles and selecting 16 articles for an in-depth review. The results show that most of the experiences with blended learning were beneficial in the field of teaching English. In addition, teacher and student perceptions are positive and decisive for the future use of digital technologies. This review highlights the need to carry out research that proposes solutions to address the challenges of students, teachers and educational institutions in blended learning, as well as the determination of characteristics of the model for an accessible implementation in the classroom.

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1. INTRODUCTION

For decades, educational policies have been based on rote teaching at all academic levels. This is the most straightforward action that has been used for many years disguised under traditional learning, which consists simply of accumulating information. Currently, teaching has evolved through pedagogical practice, turning from rote learning to meaningful learning, an educational challenge of the 21st century. As a result of the age of knowledge, a new sense of teaching encouraged critical thinking. This allows students to express opinions, adapt to reality, promote innovation and problem solving, thus achieving their highest academic level (Rivadeneira et al., 2019).

The inclusion of technology in face-to-face teaching has attracted a great deal of attention. It has provided several avenues of research due to the need to incorporate new technologies into educational curricula. In the same way, the development of digital skills in students is considered an important advance for their integration into the digital society and for educational evolution (Levano et al., 2019). The current reality shows excellent potential for incorporating Information and Communication Technologies (ICT) in the academic field since
students show constant interest in the search for new technological tools that allow them to generate dynamic learning processes both outside and inside. As inside the classroom. Being learning a foreign language such as English, one of the most required topics (Ruiz & Belmonte, 2014; Villalonga et al., 2019).

Inquiry in the field of blended learning has evolved over the years. In the first decade of the 21st century, studies focused on the challenges and limitations of e-learning and the possible potentialities of b-learning. Later, research focused on the benefits and quality of the modality in the classroom. Currently, the publications concentrate their attention on determining the perception of the model, reactions, and proposals for educational models and specifying the role of teacher and student in the model, the necessary training, and evaluations (Isla, 2014).

Blended learning or blended learning is a widely used term that, for many scholars, is still difficult to define, despite having been coined in the late '90s (Hrastinski, 2019). However, most researchers show great interest in the term and generally describe it as teaching that combines face-to-face learning with online learning (Bonk & Graham, 2012; Hockly, 2018; Hrastinski, 2019; Turpo, 2015). Likewise, for several years now, studies have been carried out to determine the magnitude of the effects that ICTs can cause in the classroom and teaching through blended learning for learning English (Du, 2013; Esparaza et al., 2015).

The merits and benefits of the b-learning approach to optimize English language teaching are evident in the results of countless influential studies as an approach that actively engages students (Halverson et al., 2014; Money et al., 2016; Woodfield et al., 2016). which is considered by many academics as “the new normal” in education due to its high adoption rate, popularity and perceived benefits (Dziuban et al., 2018; Pham & Ho, 2020; Sabooval & Manghirimalani, 2018).

However, the implementation of mixed education, especially in e-learning, has caused a certain degree of discomfort to students, teachers, and educational institutions. For example, in the student aspect, students must have self-regulation skills and technological competence since they are obliged to manage and carry out their studies independently of their instructor, at their own pace, and use online technology. outside of face-to-face sessions (Bartolomé et al., 2017). In the teaching aspect, educators must be technologically competent, using and effectively managing technology for teaching, to create creative and interactive materials that capture the student’s attention (Ruiz & Belmonte, 2014). And ultimately, the institution has the responsibility to implement and support technology training to ensure the effective use of available technology and online components.

Consequently, there are studies on b-learning focused on the challenges of design as a whole, but without mainly concentrating on the online component. For example, according to Boelens et al. (2017), blended
learning is based on four critical challenges related to flexibility, interaction, effective learning climate, and promotion of the learning process in a mixed learning environment. Similarly, several study group has focused their efforts to fill gaps in the b-learning literature. These provided guidelines, guidelines, and frameworks for their correct and practical implementation in educational institutions (Bonk & Graham, 2012; Dziuban et al., 2018; Halverson et al., 2014; Woodfield et al., 2016).

The existing literature on blended learning falls short in providing a detailed picture of the challenges of the model in teaching the English language. For this reason, the present work aimed to carry out a review of the literature on the inclusion of the blended learning modality in English as a foreign language at the university level to analyze the results related to experiences and perceptions of the model put under investigation.

2. METHOD

A systematic review was chosen, as it is strategically looking for published scientific manuscripts on a specific topic to provide an updated synthesis (Martin et al., 2017). It differs from a traditional bibliographic review because it emphasizes clear, transparent, structured, and specific methods for the bibliographic search (Bearman et al., 2012). In addition, a structured synthesis of the results is presented. It includes the use of scientific databases and a period for searching. Keywords were selected for a systematic search in all databases, and the selection and analysis criteria were chosen. Those details are noted below:

2.1. Database and search strategy

For the selection process of scientific publications, relevant publications were identified to specify the systematic review, and a search strategy was applied in databases such as Scopus, Science direct, Redalyc, and Scielo.

The search string in the study was: ("blended learning" OR "b learning" OR b-learning OR "hybrid learning" OR "integrated learning" OR "multi-method learning") AND English. These terms were based on the relevant literature on blended learning and English language teaching.

The search period for this systematic review was limited to articles from 2012 until April 2021 to collect the most relevant and updated literature on the subject. Additionally, publications in English and Spanish were included. For the selection of studies, the following inclusion and exclusion criteria are taken into account, which is identified according to the objective of the review:

2.2. Inclusion criteria

- Works published since 2012.
- Search in academic databases such as Science Direct, Redalyc, Scielo, Scopus.
- All geographic contexts.
- Publications as indexed journal articles.

2.3. Exclusion criteria

- References before 2012.
- Articles in languages other than Spanish or English.
- Research that does not come from reliable academic sources.
- Publications that work on blended learning in the teaching of English in Basic Education or other types of academic environments other than Higher Education.

2.4. Screening questions

- Was the study developed in a university context?
- Has the study been carried out in educational entities?
- Does the research design involve the manipulation of a variable?
- Is the research design experimental or non-experimental?
- Is the study about blended learning?
- Is there specific intervention in students?
- Is there evidence of improvement in English learning?

3. RESULTS

Sixteen articles that responded to the characteristics above were included in the present review. The analyzed sample that makes up this review is shown in Table 1.

Table 1.

Sample analyzed

<table>
<thead>
<tr>
<th>ID</th>
<th>Database</th>
<th>Year of publication</th>
<th>Authors</th>
<th>Title</th>
<th>Experimental</th>
<th>Methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Science Direct</td>
<td>2017</td>
<td>Pinto, A.; Sánchez, M.; García, F. y Casillas, S.</td>
<td>Students’ perceptions and attitudes towards asynchronous technological tools in blended-learning training to improve grammatical competence in English as a second language</td>
<td>No</td>
<td>Quantitative</td>
</tr>
<tr>
<td>2</td>
<td>Science Direct</td>
<td>2013</td>
<td>Lungu, I.</td>
<td>The Increasing Need for Blended-learning Models in Courses of English for Specific Courses in Romanian Universities</td>
<td>Yes</td>
<td>Quantitative</td>
</tr>
<tr>
<td>No.</td>
<td>Database</td>
<td>Year</td>
<td>Authors</td>
<td>Title</td>
<td>Findings</td>
<td>Study Design</td>
</tr>
<tr>
<td>-----</td>
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</tr>
<tr>
<td>3</td>
<td>Scopus</td>
<td>2021</td>
<td>Yang, Y. and Kuo, N.</td>
<td>Blended learning to foster EFL college students’ global literacy</td>
<td>Yes</td>
<td>Quantitative</td>
</tr>
<tr>
<td>4</td>
<td>Science Direct</td>
<td>2012</td>
<td>Maulan, S. y Ibrahim, R.</td>
<td>The Teaching and Learning of English for Academic Purposes in Blended Environment</td>
<td>Yes</td>
<td>Mixed</td>
</tr>
<tr>
<td>5</td>
<td>Science Direct</td>
<td>2012</td>
<td>Jia, J.; Chen, Y.; Ding, Z. y Ruan, M.</td>
<td>Effects of a vocabulary acquisition and assessment system on students’ performance in a blended learning class for English subject</td>
<td>Yes</td>
<td>Quantitative</td>
</tr>
<tr>
<td>6</td>
<td>Science Direct</td>
<td>2012</td>
<td>Tuncay, N. y Uzunboylu, H.</td>
<td>English Language Teachers’ Success in Blended and Online e-Learning</td>
<td>Yes</td>
<td>Quantitative</td>
</tr>
<tr>
<td>7</td>
<td>Science Direct</td>
<td>2013</td>
<td>Yang, Y.; Chuang, Y.; Li, L. y Tseng, S.</td>
<td>A blended learning environment for individualized English listening and speaking integrating critical thinking</td>
<td>Yes</td>
<td>Quantitative</td>
</tr>
<tr>
<td>8</td>
<td>Science Direct</td>
<td>2016</td>
<td>Kofar, G.</td>
<td>A Study of EFL Instructors Perceptions of Blended Learning</td>
<td>No</td>
<td>Quantitative</td>
</tr>
<tr>
<td>9</td>
<td>Scielo</td>
<td>2020</td>
<td>Macedo, A. y Finardi, K.</td>
<td>Integrating digital technologies in Brazilian English language teacher education through blended learning</td>
<td>No</td>
<td>Qualitative</td>
</tr>
<tr>
<td>10</td>
<td>Scielo</td>
<td>2019</td>
<td>Saborio, S.</td>
<td>Propuesta curricular desde un enfoque bimodal y un multimedia informativo para el curso Recursos Didácticos para la Enseñanza del Inglés</td>
<td>No</td>
<td>Qualitative</td>
</tr>
<tr>
<td>11</td>
<td>Scielo</td>
<td>2019</td>
<td>Morales, R y Ferreira, A.</td>
<td>La efectividad de un modelo de aprendizaje combinado para la enseñanza del inglés como lengua extranjera: estudio empírico.</td>
<td>Yes</td>
<td>Quantitative</td>
</tr>
<tr>
<td>12</td>
<td>Redalyc</td>
<td>2016</td>
<td>Rico, J.; Ramirez, M. y Montiel, S.</td>
<td>Development of oral competence through the use of Open Educational Resources</td>
<td>No</td>
<td>Qualitative</td>
</tr>
</tbody>
</table>
The article by Pinto et al. (2017) showed positive results regarding the effectiveness of asynchronous tools. The student autonomy oriented to the study rhythm and individual learning was highlighted. In addition, the potential of virtual learning for learning English grammar through electronic activities that simulate real experiences and situations was pointed out.

In the case of Lungu (2013) the results yielded a significant perception of the students about improving and streamlining their learning in a virtual environment. In addition, the experience was described as flexible, giving them autonomy and progress according to their learning pace, needs, and interests. Another result was related to teaching practice, giving them more time to use innovative, creative, and exciting resources.

Similarly, the research results by Yang and Kuo (2021) revealed that the activities under blended learning promoted the development of global literacy through intercultural communication by establishing social connections online with English teachers from different cultural origins.

In the research by Maulan and Ibrahim (2012), positive results were obtained in perception regarding blended learning. They highlight the positive perception about the role of the teacher in this model, qualifying it as

<table>
<thead>
<tr>
<th>#</th>
<th>Source</th>
<th>Year</th>
<th>Authors</th>
<th>Title</th>
<th>Type</th>
<th>Methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>Science Direct</td>
<td>2015</td>
<td>Tosun, S.</td>
<td>The Effects of Blended Learning on EFL Students' Vocabulary Enhancement</td>
<td>Yes</td>
<td>Mixed</td>
</tr>
<tr>
<td>14</td>
<td>Science Direct</td>
<td>2013</td>
<td>Ferriman, N.</td>
<td>The impact of blended e-learning on undergraduate academic essay writing English (L2)</td>
<td>Yes</td>
<td>Quantitative</td>
</tr>
<tr>
<td>15</td>
<td>Science Direct</td>
<td>2014</td>
<td>Mohammad, E. y Mirdehghan, S.</td>
<td>in A CMC Approach to Teaching Phrasal-verbs to Iranian EFL Senior High School Students: The Case of Blended Learning</td>
<td>Yes</td>
<td>Quantitative</td>
</tr>
<tr>
<td>16</td>
<td>Science Direct</td>
<td>2015</td>
<td>Hubackova, S.</td>
<td>Blended Learning – New Stage in the Foreign Language Teaching</td>
<td>Yes</td>
<td>Quantitative</td>
</tr>
</tbody>
</table>

Fuente: elaboración propia.

Table 1 shows that the articles taken into consideration are primarily in English, with only two of them being Spanish. Likewise, the database that provided more information on the subject was Science Direct, followed by Scielo and Redalyc.
teaching that allows feedback and answering of doubts quickly. Likewise, the students valued the online interaction in the model, which highlights the flexibility in writing without worrying about making mistakes.

For Jia et al. (2012) their research allowed demonstrating that blended learning played an essential role in the acquisition of vocabulary and listening comprehension. Thus, the students were in favor of the approach. Moreover, a positive perception of it resulted.

Citing Tuncay and Uzunboylu (2012), it was observed that the sociodemographic characteristics of the sample did not show significant differences. However, the most outstanding result in the study was the difference between the success scores of teachers who used the Second Life application and those who did not. Similarly, an excellent acceptance of the virtual world provided by Second Life was detected in the object of study.

On the other hand, in the experience of Yang et al. (2013) the most outstanding results after applying the b-learning method in the classroom were interactivity, fluid communication, improvement in information clarity, time flexibility, non-travel, and the exchange of experiences between students. Other significant results were the improvement of listening comprehension and speaking in English.

In addition, as noted by Kofar (2016) in his article, the findings concluded that the participants showed a positive perception of the approach despite the difficulty of its implementation in the classroom. Thus, only a few of the teachers applied the model despite a consensus on its benefits.

On the other hand, with the research by Macedo and Finardi (2020) when analyzing the responses, it was concluded that the factors that determine the success in the integration of digital technologies in blended learning are closely related to the opinions and reflections of teachers about the value of the online environment in education and its perception about teacher education and training for innovation in its methodology.

According to Saborío (2019), after having analyzed the SWOT evaluation (strengths, opportunities, weaknesses, and threats), it was concluded that the application proposal of the blended learning model in the university environment was promising because the results showed only strengths, not finding threats that prevent the application of such a teaching model.

Equally important, the investigation by Morales and Ferreira (2008) allowed us to know that the application of the combined model helped improve the acquisition of the English language, the difference in progress being 10% of the experimental group compared to the control group.

In the experience of Rico et al. (2016) an increase in verbal ability by students could be observed after the application of digital materials in a mixed learning context. Eventually, the students’ perception was positive, enhancing the capacity for interaction and study in any space.
However, Tosun's research (2015) did not obtain significant results in improving vocabulary acquisition after applying the mixed model due to the limited motivation of students to review outside of class. However, the model's perception of vocabulary teaching was favorable compared to traditional education.

Similarly, Ferriman (2013) found no significant differences between the experimental and control groups after applying tools to improve writing ability. Despite this, it was stated that the approval and satisfaction of the model is higher in small classes than classes with a more significant number of students.

In contrast, for Mohammadi and Mirdehghan (2014) the results of their research revealed that online tasks could motivate students to take an active role in learning phrasal verbs. This shows an increase in learning in the experimental group compared to the control group.

Finally, with the results of Hubackova (2015) it is shown that b-learning is spreading very quickly in the academic field and is a trend in current teaching, with the highest percentage of the sample (44%) preferring and using the blended-learning model for the acquisition of their learning.

4. DISCUSSION

After showing the information and results obtained through the systematic review of the existing literature of the variables b-learning and English language teaching in higher education, we proceed to carry out the discussion of the individual results by the proposed objective, which consists of the analysis of the results related to experiences and perceptions of blended learning.

As a result of investigating research in databases such as Scielo, Redalyc, Scopus, and Science Direct, 16 studies were obtained that met the established inclusion criteria. The small number of articles reflects the short report of investigative experiences and reflections of perception of the blended learning model in English as a foreign language in universities during the last decade. This situation would indicate that the mixed learning modality was little applied to English teaching. However, its use has gradually increased, evidenced by most studies published in the last three years.

The selected studies also tend to favor quantitative and experimental types of research, finding only three qualitative and two mixed investigations (Maulan y Ibrahim, 2012; Saborío, 2019; Macedo y Finardi, 2020). The preceding is worrying because they cause gaps in the scientific literature that would help a better analysis of the perceptions of students and teachers and gain a more in-depth understanding of the characteristics of blended learning. Likewise, as Chaves (2018) points out in mixed studies, knowledge and practice in quantitative and qualitative research must be broader. Therefore, these studies should also be driven due to their richness, depth,
and interpretive understanding of the diversity of study topics (Tuncay y Uzunboylu, 2012; Lungu, 2013; Ferriman, 2013; Mohammadi and Mirdehghan, 2014; Rico et al., 2016).

From the literature analysis, it is feasible to maintain that the experiential results show that the b-learning modality promotes the education and learning of the English language as a foreign language in most of the institutions where it was applied. It also benefits the teacher and student, such as learning autonomy, more excellent organization time, flexibility, attention, and innovation (Pinto et al, 2017; Morales and Ferreira, 2019; Macedo and Finardi, 2020; Yang and Kuo, 2021). Regarding a teacher and student perceptions related to blended learning, it is specified that a good proportion of these is positive and decisive for the use of digital technologies in the classroom (Maulan and Ibrahim, 2012; Jia et al., 2012; Tosun, 2015; Hubackova, 2015).

However, in some studies analyzed, some difficulties were still found for implementing b-learning in higher education (Lungu, 2013; Kofar, 2016). For this reason, it is suggested to expand the research that promotes the training of teachers, students, and institutions in the employment and organization of the model as well as studies that allow a more in-depth understanding of their characteristics that describe blended learning, such as the teacher and student role, objectives, methodology, among others, for a better experience and strengthening of your English language skills in your university professional training.

For an efficient design and application process of the b-learning modality in universities, it is recommended that they choose to integrate this option within their educational offer. Technological instruments must be organized and elaborated to structure the non-contact classes included in the model. Furthermore, as Salinas et al. (2018) expressed, it is appropriate to consider the experiences shared by other institutions about the model to strengthen the educational plan to be provided. Consequently, literary review studies such as the present investigation enrich and contribute to the academic improvement of the future, specifically in the teaching of English, also considering its practice in the learning of other languages, and adaptable for different educational proposals.

5. CONCLUSIONS

From the literature review carried out, it is possible to conclude that the blended learning modality manages to favor English as a foreign language in universities. Therefore, B-learning tends to be a valuable educational alternative in the current educational framework.

The implementation of b-learning is feasible in teaching English at the higher level as long as the actors in the process have access to the technological resources necessary to carry out activities and, consequently, to fulfill the established objectives.
This review highlights the need to carry out research that proposes solutions to address the challenges of students and teachers in the teaching-learning of English at the higher level with the use of blended learning, considering that the latter is oriented to meet current educational needs by focusing on strengthening the competencies of educational actors in academic and professional training by promoting autonomous and cooperative learning in their learning process, providing them with instruments and strategies that allow them to find solutions to different challenges about learning a foreign language.

Conflicto de intereses / Competing interests:
Los autores declaran que no incurre en conflictos de intereses.

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Stefany Noa: conceptualización, curación de datos, análisis formal, adquisición de fondos, investigación, metodología, administración del proyecto, recursos, software, supervisión, validación, visualización, escritura - preparación del borrador original, escritura - revisar & edición.

Kevin Laura: conceptualización, análisis formal, investigación, metodología, administración del proyecto, recursos, software, supervisión, validación, visualización, escritura - preparación del borrador original, escritura - revisar & edición.

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Yolanda Lujano: conceptualización, análisis formal, investigación, metodología, administración del proyecto, recursos, software, supervisión, validación, visualización, escritura - preparación del borrador original, escritura - revisar & edición.

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Los autores declaran no haber incurrido en aspectos antiéticos, ni haber omitido aspectos legales en la realización de la investigación.

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