ANÁLISIS CRÍTICO DE LOS RECURSOS EDUCATIVOS DIGITALES APLICADOS POR PROFESORES DE INGLÉS EN INSTITUCIONES PÚBLICAS

A CRITICAL ANALYSIS OF THE DIGITAL EDUCATIONAL RESOURCES APPLIED BY ENGLISH TEACHERS IN PUBLIC INSTITUTIONS

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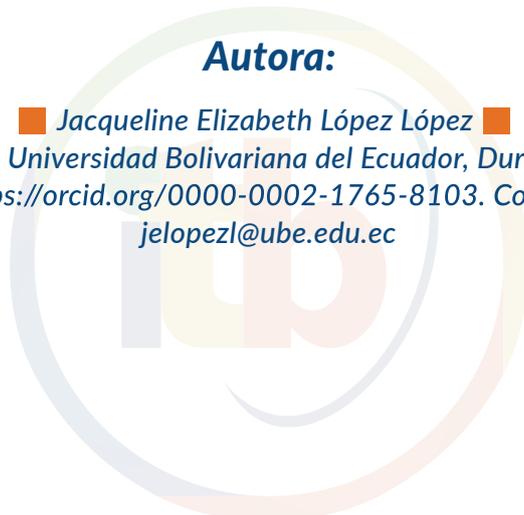
Abstract

The article presents the results of a research study that promotes innovation and good practices in the use of information and communication technologies in the management and utilization of digital educational resources by English teachers in public institutions in Ecuador. Initially, a technical analysis was conducted to evaluate the digital educational resources - English Pedagogical Modules - using the LORI-AD instrument, which assesses the stages of design, implementation, and quality of these digital educational resources available in the institutional repository of the Ministry of Education. Simultaneously, through a voluntary survey administered to 102 English teachers nationwide, information was collected using a Likert scale, allowing for an understanding of the teachers' subjective perspectives on the use of English pedagogical modules during and after the pandemic. Finally, the obtained quantitative and qualitative results demonstrate the scenarios in which the educational resources have been used by teachers and their quality, integration with ICT, usability, and relevance for learning.

Keywords: Digital educational resources, educational quality, information and communication technologies, linkage with learning, innovation.

Resumen

El artículo presenta los resultados de una investigación que fomenta la innovación y buenas prácticas en el uso de tecnologías de la información y comunicación en la gestión y utilización de recursos educativos digitales por parte del profesorado del área de inglés en instituciones públicas del Ecuador. En primera instancia se realizó un análisis técnico para evaluar los recursos educativos digitales - Módulos Pedagógicos de inglés - utilizando el instrumento LORI-AD, que permite evaluar las etapas de diseño, implementación y calidad de dichos recursos educativos digitales disponibles en el repositorio institucional del Ministerio de Educación. Simultáneamente, a través de una encuesta voluntaria aplicada a 102 docentes de inglés a escala nacional, se recopila información mediante escala valorativa Likert, la cual permite conocer la perspectiva subjetiva de los profesores sobre el uso de los módulos pedagógicos de inglés durante y después de la pandemia. Finalmente, los resultados cuantitativos y cualitativos obtenidos muestran los escenarios en que los recursos educativos han sido utilizados por los docentes, así como su calidad, integración con las Tic, usabilidad y relevancia para el aprendizaje.

Palabras clave: Recursos educativos digitales, calidad educativa, tecnologías de la información y comunicación, vinculación con el aprendizaje, innovación.

Introduction

One of the great challenges of society is to integrate digital communication in the educational field. Two years after a pandemic caused by the Sarvoc 12 virus, the effects on educational models are evident. A cognitive triangulation has been established among the teacher, student, and content, and Information and Communication Technologies (ICT) have taken on a leading role in this scenario by facilitating the process of adaptation and relearning. As mentioned by (Huayamave et al., 2019), UNESCO considers that ICT represents a new interaction, narrative, and close relationship between peers and teachers, offering new learning opportunities for the world in general. Thanks to educational requirements and standards, the incorporation and use of technology as an auxiliary tool in the learning process have been achieved.

In Ecuador, the presence and integration of ICT in education have generated various scenarios of benefits and educational innovation. The first emphasizes the triangulation of teacher, student, and knowledge, while the second focuses on pedagogical changes related to content creation and socio-constructivist currents of knowledge. These initiatives, as mentioned by (Huayamave et al., 2019) and supported by other authors and researchers, highlight that psychology and interpersonal relationships transcend borders, ages, and social classes, being closely related to the values and habits learned at home. This allows for interaction with other individuals both within and beyond the immediate environment. Following these constructivist, humanistic, and personal development approaches, the expression of words and images has led to the generation of innovative digital knowledge that addresses the challenges posed by technologies in educational spaces.

Experience-based learning environments are continuously expanding beyond what was originally planned at different levels of regular and formal education every day.

An ideal digital educational resource is created through an Instructional Design process to foster the development of new knowledge, skills, and attitudes while adapting to the individual needs of its users. These resources can take various forms, such as complete courses, modules, books, articles, exams, software, videos, informational capsules, simulators, podcasts, materials generated in class, and any other tool, material, or technique used to support access to knowledge (Adame, 2015).

Numerous digital educational resources exist that enable reading, collaboration, and learning, offering diverse functionalities that allow content organization, information incorporation, and the choice of learning strategies through active group work during the didactic process, both in face-to-face and virtual classrooms (González, 2011).

The Ministry of Education of Ecuador provides digital resources to teachers as support for the teaching- learning process, aiming to achieve four main objectives: promoting awareness of resource utilization, fostering the care of school texts as an educational, environmental, and cultural value, contributing to the conservation and sustainability of the environment, and reducing costs associated with printing educational materials. In the case of the Foreign Language (English) area, Pedagogical Modules are available, containing activities focused on the development of communicative skills and competencies based on the Foreign Language Curriculum (EFL).

These resources maintain a consistent structure throughout Basic General Education (BGE) to Unified General Baccalaureate (UGB), adapting the complexity level to the corresponding BGE or UGB year. They include specific activities related to the curricular threads present in the foreign language study plans of each sub-level, such as Communication and Cultural Awareness, Oral Communication, Reading, Writing, and Language through the Arts. Although these digital resources were designed to meet the desired outcomes for students in terms of acquiring a second language level B1, they still lack fundamental characteristics for effective language teaching that can be readily implemented through technology.

This study aims to critically analyze the quality and usability of the English Pedagogical Modules, considering the academic and design aspects that have been used during and after the pandemic as a teaching resource at different educational levels. Additionally, it proposes the creation of Open Educational Resources (OER) indexed in institutional repositories, allowing adaptability, pedagogical support, and reinforcement in the process of learning a second language; as mentioned by (Bagetti et al., 2017), these resources will feature specific content tailored to the reality and cognitive process of the students, which can be implemented by teachers.

Materials and Methodology

With the increasing rise of technology in the educational field, there arises the need to understand the role played by digital educational resources in the teaching-learning process. In this context, the following

question is posed: Is the usability of digital educational resources used by teachers from public institutions good or inefficient?

For this study, a mixed-method approach was employed, combining quantitative and qualitative methods to correlate the information and data obtained through the evaluation instruments used in the analysis. According to (Bernal, 2010), quantitative and qualitative methods are based on two important aspects: the deductive relationship between variables and the objectivity or perception of the results regarding the reality obtained from a population or sample.

As the main objective of this study is to evaluate digital resources (English pedagogical modules), the LORI- AD evaluation instrument was used. According to (Adame, 2015), this instrument provides quantitative data on the actual values of a resource, including aspects such as quality, functionality, usability, and other digital educational criteria, both before and after being incorporated into the educational digital repository.

Since the evaluation of digital educational resources will be of great benefit to the population of foreign language teachers working in the public sector nationwide, a sample of hundred-two English teachers was used. The sample includes both males and females, ranging in age from 28 to 60 years, with ninety-three of them from the public sector and nine from the private one. It is worth mentioning that there is no official data available on the total number of English teachers working in public institutions in the country; therefore, the aforementioned sample was chosen for the study.

To conduct the quantitative technical analysis, an English pedagogical module was randomly selected from the institutional repository of the Ministry of Education of Ecuador. Subsequently, the module was evaluated based on the nine criteria established in the LORI-AD evaluation instrument. These criteria include content quality, alignment with objectives or competencies, feedback and adaptability,

motivation, design and presentation, interaction and usability, accessibility, reusability, and compliance with standards. On the other hand, for the qualitative method, the Likert scale was used to determine the level of agreement and disagreement among participants who voluntarily completed online surveys regarding the usability and accessibility of digital educational resources in different levels of formal education in the foreign language area.

The survey was designed around four dimensions: level, content, usability, and presentation. It included both multiple-choice questions and open-ended questions. This approach allows understanding the perception of the resource from the user's perspective, recognizing that the resource is an integral part of the teaching- learning process.

Regarding ethical considerations, it is important to clarify that, since the educational content repository is open-source software, no permission is required to conduct a critical analysis of the resources provided in various knowledge areas. The assessment of the digital educational resource was performed using the LORI_AD evaluation instrument with the authorization of its author, Dr. Silvia Adame. The second research instrument (online survey) was conducted through voluntary sampling, with the express consent of participants for the use of information (responses) solely for academic purposes.

During the validation of this research, a limitation related to the target population was identified. According to information from the official website of the Ministry of Education (Ministerio de Educación, 2022) there is a demand for 7,000 English teachers. However, the sample used in this study represents only 1.45% of that population. Despite this, the research can be considered reliable due to its technological nature and its focus on evaluating digital educational resources about meeting general standards for their proper functioning.

In this way, international assessment tools can be employed to determine the suitability of the material at different levels of learning and its compliance with established standards. Consequently, two instruments were used to assess both the overall quality of the digital educational resource and the subjective perception of its direct users.

Finally, these results enable a critical analysis of the usability and quality of digital educational resources concerning their dissemination and utilization in the digital repository of the Ministry of Education of Ecuador.(Ministerio de Educación, 2023).

Results and Discussion

Technology has led to the emergence of new digital educational resources, which by themselves do not generate innovation as they are static and generalized documents. To achieve true innovation, it is necessary to consider implementation, design, and motivation strategies that allow these resources and educational proposals to be articulated, thus improving and enhancing skills in the use, creation, and application of those resources (Joaquín Recio Mayorga et al., 2021).

As expressed in the study, it is crucial to address the question of the effective integration of digital educational resources in the teaching of a second language to develop competencies in Public Educational Institutions in Ecuador. To accomplish this, an objective review of the digital resources provided by the government to English teachers is necessary to determine whether their usability is good or inefficient.

Technical Analysis (English Pedagogical Module - DER)

Initially, it was applied the LORI-AD evaluation instrument, a tool for assessing digital educational resources that focuses on various evaluation criteria, such as content quality, alignment with objectives or competencies, feedback and adaptability, motivation, design and presentation, interaction and usability, accessibility, reusability and compliance with standards.
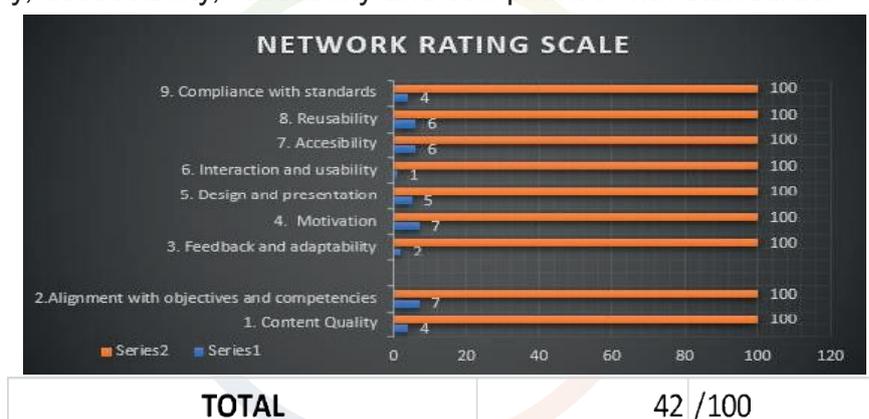
Informative Graphic 1. Network scale Author:
Sonia Armijos & Estefani Berrones

The first criterion "content quality" received a rating of 2/5. It was observed that certain information related to content interpretation, such as the use of pedagogical modules, was omitted. Additionally, keywords and a balanced integration of other cultures were not found.

The second criterion "alignment with objectives or competencies" received a score of 2/3. It is understood that the resource contains content that allows for achieving the competency goals according to the Foreign Language Curriculum.

The third criterion "feedback and adaptability" obtained a score of 1/4 because the resource is static and lacks adaptation, creation, or design of activities for reinforcement.

The fourth criterion "motivation" received a rating of 2/3, indicating that the resource presents a basic representation of images and a connection with the real-world topic being studied, which is important for generating student interest.

The fifth criterion "design and presentation," which evaluates whether the resource has audio and video links that promote efficiency in the material used, obtained a score of 3/6. This shows that the writing is not clear and concise, and the video also lacks searchability according to the topics or narratives.

The sixth criterion "interaction and usability" received a score of 1/4, indicating difficulties in accessing interfaces, links, and navigation. The lack of clear instructions, limited access, and presence of distractors, such as unlabeled and general links, were evident.

The seventh criterion "accessibility," related to the previous one, received a rating of 3/5. It was noticed that the resource format does not offer different presentation options, limiting its use for users with or without associated disabilities.

The eighth criterion "reusability" of the resource in the corresponding context and course achieved a score of 2/3. There was a license for using and downloading visual material, but there is no direct link to the digital educational resource.

The ninth criterion "compliance with standards" received a rating of 5/12. It was observed that the resource lacks several important aspects, such as copyright information, keywords, creation date, and the competency it promotes.

Finally, according to the LORI-AD evaluation instrument, the Digital Educational Resource (English Pedagogical Module) received a score of 42/100, indicating a low rating (poor) on a scale of digital educational resource evaluation (DER). Specificities were identified indicating that the design, application, operationalization, and dissemination do not meet the specified standards for this learning object.

Survey Analysis using the Likert scale.

This evaluation instrument enables the measurement of quality and gauging the agreement level of individuals or respondents towards a specific brand or product. To achieve this, a variety of dimensions, including both open-ended and closed-ended questions, were incorporated into the survey, allowing for a qualitative evaluation of this study.
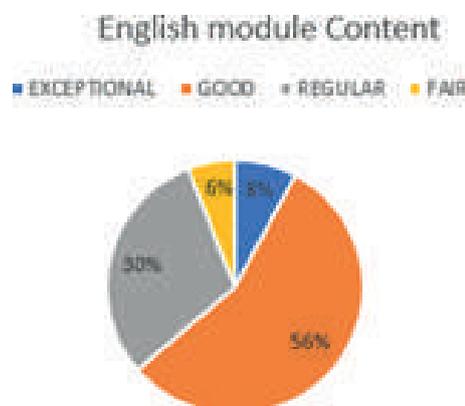
● **First dimension: Level.**

Informative Graphic 2. Teaching level Author: Sonia Armijos & Estefani Berrones

Regarding the teaching level, the obtained results are as follows: 56% corresponds to General Basic Education (EGB), 40% corresponds to Unified General Baccalaureate (BGU), and 6% to other categories.

● Second dimension: Content.

Informative Graphic 3. English module Content Author:
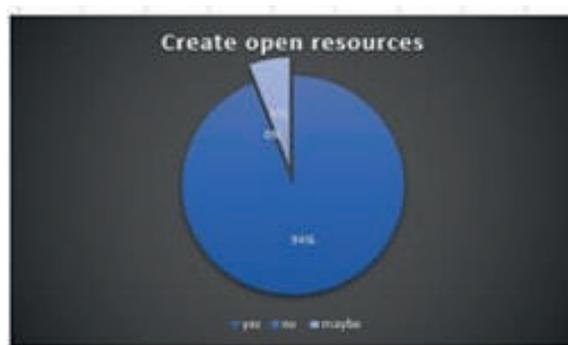Sonia Armijos & Estefani Berrones

In the "English module content" indicator, it can be observed that the content is rated as exceptional by 8%, good by 56%, fair by 30%, and poor by 6%. These results suggest the existence of several aspects that do not align with the reality of teaching a second language.

Informative Graphic 4. Different digital material Author:
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In the "Different digital materials to support the teaching-learning process" indicator, it is highlighted that 11% of the participants utilize other digital resources for teaching a second language. These resources include games and open-access materials such as Wordwall, videos, Jamboard, Mentimeter, Canvas, Cambridge exercises, and Thatquiz.

On the other hand, 89% of the participants do not use this type of material, and this may be attributed to various reasons. Some of them are poor internet connectivity, lack of internet access both at school and at home, as well as the scarcity of available resources in both environments. These limitations are impacting the incorporation of digital materials in the teaching-learning process of a second language.

Informative Graphic 5. Creation of open resources Author:
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The indicator of "creation of open educational resources" reflects that 94% of the teachers have a significant interest in developing open educational materials that adapt to the context and reality of the students. In contrast, the remaining 6% does not show a similar interest in this task.


Informative Graphic 6. Creation of digital content.
Author: Sonia Armijos & Estefani Berrones

The indicator of "creation of digital content" highlights that a high percentage, 97.06% of the participants, express a desire to create digital content. However, a small percentage, 2.94%, does not consider this task to be relevant.

Understanding teachers' perceptions of digital resources and content is indispensable, as their responses reveal a gap in terms of innovation, creation, and usage. From this perspective, it is

essential to evaluate whether the content is suitable for the educational level and if there are resources that can enhance the learning process, without solely relying on what is provided by the pedagogical module.

- **Third dimension: Usability.**
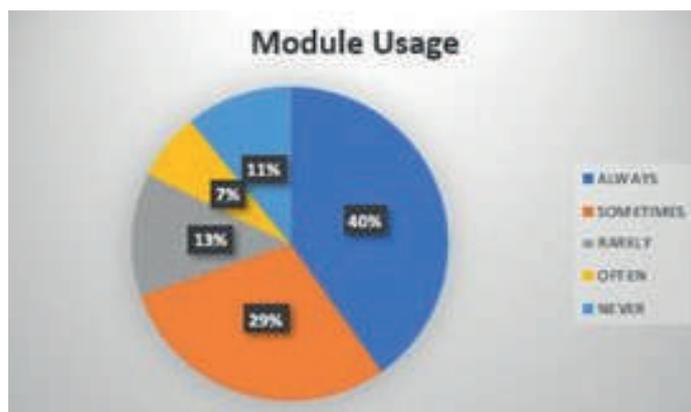
Informative Graphic 7. Module Usage.
Author: Sonia Armijos & Estefani Berrones

The indicator of "module usage" reveals that 40% of teachers use the module regularly. Following this, 29% use it occasionally, while 13% indicate rare usage. Additionally, 7% mention using it on certain occasions, and 11% affirm that they never use it.

It is important to note that, in this indicator, the complete use of the modules, which consist of 24 content sheets, is not carried out entirely due to their length. In many cases, teachers may complete them just to comply with the established planning, which aligns with the time and purpose of the Foreign Language Curriculum (EFL). This suggests that the modules are not always thoroughly covered due to time constraints and other factors

Considering these observations when analyzing the use of modules in the educational process is crucial, seeking effective ways to leverage them to maximize their impact on student learning.
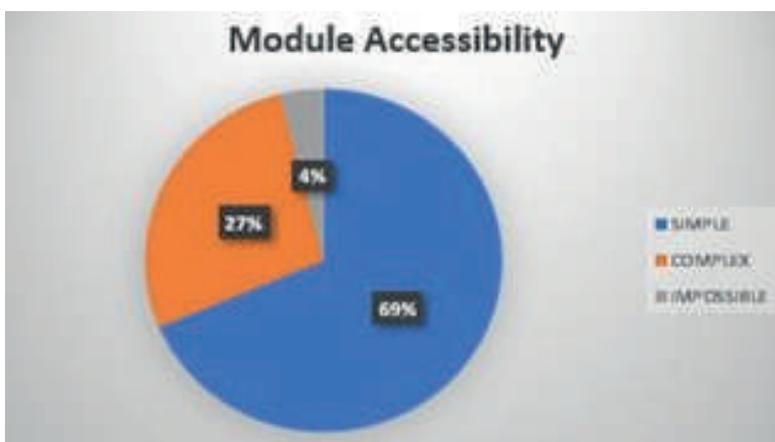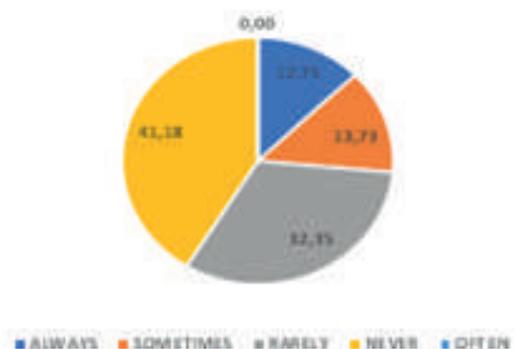
Informative Graphic 8. Module Accessibility Author:
Sonia Armijos & Estefani Berrones

The "module accessibility" indicator reveals that 69% of users have easy access to the modules, while 27% find the access complicated, and only 4% consider it impossible. Although it is concluded that access is

generally straightforward, the teachers' digital competence in using the internet has become a drawback over time, especially with the transition to the new platform called REDA.

Raising questions about the accessibility of these modules is important, as the available information does not provide sufficient details about how they have been adapted to be functional and accessible for users with visual, auditory, or motor disabilities. Addressing these aspects is imperative to ensure that the educational experience is inclusive and beneficial for all users equally.


Informative Graphic 9. Institutional resources to work with modules Author:
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The indicator of "institutional resources for working with pedagogical modules" raises questions from the perspective of teachers. 41% of teachers indicate that they never use pedagogical modules due to the lack of devices to play audio and the absence of projectors (in-focus) in the classroom, as well as the insufficiency of materials provided by the government to carry out their work. On the other hand, 32% mention that they rarely use pedagogical modules, and when they do, they use their resources such as speakers, computers, and even projectors, aiming to enrich the lessons and educational activities. 13.73% report that they sometimes use institutional laboratories for classroom work, either collaboratively or individually. Finally, 12.75% always use the modules to work in their English classes.

• **Fourth Dimension: Presentation.**
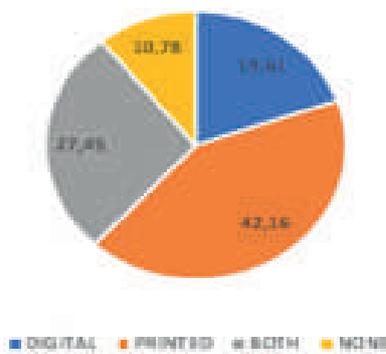
Informative Graphic 10. Module or DER presentation Author:
Sonia Armijos & Estefani Berrones

The "Module or DER Presentation" indicator highlights how teachers receive and utilize the English pedagogical module. It is noticed that 42.16% of teachers use the module in printed form, while 27.45% use it in both digital and physical formats, adapting to the context and reality of their institution. In a percentage of 19.61%, teachers opt to exclusively use the digital version of the module. Finally, 10.78% do not use the pedagogical module as they consider it unnecessary and prefer to use other learning materials.
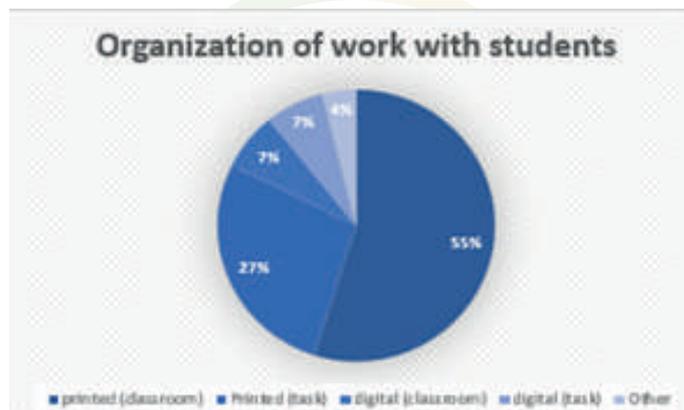
Informative Graphic 11. Organization of work with students Author: Sonia Armijos & Estefani Berrones

The indicator "organization of work with students" reveals that when using the study modules, 55% of teachers prefer to use them in printed form during class. 27% of them select activities from the module for students to work on at home. 7% work with the module digitally during classes, while another 7% send digital module activities for students to complete at home. Lastly, 4% of teachers use other materials to carry out their teaching tasks.

After reviewing the quantitative and qualitative results obtained through evaluation instruments, they are correlated based on content quality, design and presentation relevance, interaction and usability, accessibility, feedback, and adaptation. These criteria and dimensions were previously established in both instruments for analysis.

From an educational perspective, the production of a digital educational resource should incorporate three fundamental elements, as highlighted in the work of (Haak, 2005) described in Poisson's (2004) article "Digital Educational Resources for Mediation and Mediatization in the Pedagogical Community." These components are Support, Content, and Service.

The first component, labeled "SUPPORT," focuses on the necessary technological infrastructure for creating digital educational resources. This infrastructure includes aspects such as storage, network, and digital platforms, which establish the dissemination base, prioritizing speed and efficiency to maximize the potential of these resources on various technological devices. A broader view on this point comes from (Alvarez et al., 2016), who classify teaching through platforms into three categories:

Instructional Management System (IMS): This software, functioning as a server, distributes educational content through networks, fosters collaboration between students and teachers, and records relevant academic information.

Learning Management System (LMS): This system enables the organization and distribution of course materials, as well as facilitating discussion forums, tutoring, and student performance assessment

Virtual Teaching-Learning Environments (VLEs): These virtual environments are analogous to LMSs and are associated with distance or virtual teaching.

From these definitions, the relevance of identifying which IMS platform the Ecuadorian government employs to distribute educational content through the web arises.

The second component, termed "CONTENT," involves conveying a message elaborated by the authors of the educational resource. This encompasses the conceptualization of the subject from perspectives such as epistemology, learning theory, methodology, teaching and learning techniques, and strategies. In this regard, CEPAL-UNESCO (2020) notes that educational gaps, especially in modalities and platform usage, drive the need for designing contextualized content that offers learning and innovation opportunities. Furthermore, (Mendoza-Bozada, 2020) in their article "Technology in Ecuadorian Education: Achievements, Problems, and Weaknesses" highlights that Ecuador has experienced progress, challenges, and shortcomings in incorporating technology in education. The inclusion of computers in 2002 marked a milestone in the adoption of ICT in education, but improvements were gradual, and Ecuador ranked 108th in educational technological development according to the Global Information Technology Report (2010-2011).

Despite these limitations, internet access has grown significantly in the country, with around 70.7% of the Ecuadorian population connected, according to data from the INEC, the regulatory body for socio-demographic statistics in Ecuador.

It's vital to recall that information and communication technologies are essential elements in resource design, revitalizing pedagogical practices in hybrid or semi-presential learning contexts.

Regarding the module content, it's observed that authors base their topics on constructivist theory. According to (Wang, 2011), new methodologies centered on student experience foster autonomous and practical learning. On the other hand, (Yang, 2010) maintains that language teaching is enriched by the use of computers, enabling ICT-assisted learning through approaches like Computer-Assisted Learning (CALL).

In this teaching context, it is evident that the module authors have opted for a combination of constructivism and the CALL approach for language instruction, incorporating various updated methodologies. However, the evaluation conducted reveals a deficiency in material integration and coherence of the message conveyed by the resource.

The content does not meet fundamental requirements, such as the inclusion of keywords, identification of key points, and definition of objectives at the beginning and end of each module (DER). This lack of cohesion hinders systematic and organized development and implementation.

The third component, labeled "SERVICE," refers to providing technical and pedagogical support to the end- user. This involves adapting technology in the educational process, allowing active engagement with notable benefits for the user. These advantages encompass device interaction, web interaction, and building a connection between knowledge, students, and teachers in daily reinforcement activities. This integration seeks to optimize mobility and support, as highlighted by (Ortiz & Corrêa, 2020).

In terms of design and presentation, (Balladares Burgos, 2018) emphasizes the importance of active student involvement in teaching-learning processes, crucial for adapting to dynamic changes and emerging education methodologies. This approach underlines the need to propose new strategies for designing activities, especially in practice or educational research programs.

Significant changes are anticipated in the way learning design is approached, as different approaches and methodologies are expected to be integrated to create a hybrid modality that provides flexibility and enhances educational practices. However, it remains unclear which learning design approach was employed in developing the pedagogical English modules for various educational levels. This underscores the absence of a systematic approach in activities that are consistent with the initiation and culmination of this method.

In line with this, (Agudelo, 2009) asserts that new training processes, related to digital resources adapted to the current educational environment, pose the possibility of transforming the learning process. Achieving this transformation necessitates meticulous planning on the part of the educators, followed by effective integration within the students' specific context. It is imperative to recognize that instructional design extends beyond mere content presentation; it is a comprehensive planning process that encompasses course creation within both in-person and online educational realms. This entails the development of modules, teaching units, learning objects, and, in a broader sense, educational resources that transcend mere information dissemination.

Nevertheless, the evaluation results from the two assessment instruments indicate that the instructional design of the pedagogical English modules lacks essential elements such as clear and concise writing and the incorporation of audio and video, which are crucial for effective design. These elements play a critical role in supporting the theoretical aspect and contextualizing the learning approach within real-world scenarios.

Aligned with this perspective, (Quitián-Bernal et al., 2020), in their article "Designing Blended Learning Environments: Challenges and Opportunities," emphasize that designing educational resources must be approached from a didactic perspective. This means that planning should consider adapting spaces and resources designed by teachers to suit user needs. This approach should be consistent with the resource's objectives, the involvement of the actors, contributions, expectations, roles of both the teacher and tutor, and the effective interaction between them.

Within the analysis, another pertinent facet to consider is the interaction and usability of the modules, including aspects such as links and navigation. As outlined by (Gabino, 2021), pedagogical elements embedded within a resource enable students to understand, contextualize, and initiate interactive engagements about subjects, content, and collaborative endeavors. However, the findings of the survey indicate that the links within the modules fail to direct users to their intended sections due to inadequate integration. Furthermore, the absence of links to access videos and thematic reinforcements is also apparent.

(Cocunubo-Suárez et al., 2018) indicate the importance of usability in Digital Learning Environments (DLEs), emphasizing that usability must meet certain quality-defining characteristics. Aspects such as content, interface, error management, tools, flexibility, and standards can be mentioned; all these factors contribute to the quality and usability of the resource. Usability experts agree that to obtain an ISO certification, it is essential to assess whether the website hosting the modules or content is suitable and meets the set objectives.

In the specific case of Ecuador, certain characteristics underlined previously are exhibited by the institutional repository of the Ministry of Education. Nevertheless, the effectiveness of utilizing these resources has not been ascertained thus far, nor has an analysis been conducted to support their suitability for educational purposes. Study results indicate a score of zero (0) in terms of interaction and usability, raising concerns about the true efficacy of this resource in the teaching-learning process. This suggests the need to re-evaluate its viability and utility in the coming years, to ensure its relevance and applicability in line with required standards and competencies.

In addition to the aforementioned criteria, other elements of importance require analysis. One of these critical aspects is accessibility, which constitutes a fundamental pillar in educational methodology by facilitating internet-based access to virtual education. Effective management and innovation in this sphere foster comprehensive production, distribution, and academic development.

In this context, the work authored by (Rodrigo San Juan et al., 2012), titled "Container Formats as a New Technological Mean for Improving Accessibility in Audiovisual Learning Resources," underscores the multifaceted nature of accessibility objectives. These objectives encompass not only reducing barriers to obtaining digital educational resources through educational platforms but also serving as conduits for both educational services and content distribution. This, consequently, fosters content reuse and interoperability. Notably, the findings derived from the survey (as shown in Informative Graph 8) reveal an absence of indicators about accessibility and usage by individuals with diverse sensory and motor capabilities. The modules are designed to be accessible only to individuals without motor or visual difficulties.

Regarding the second point, adaptation emerges as a central axis in cognitive learning by integrating resources and multimedia material in educational environments, both within and outside the classroom, whether physical or virtual. This adaptation entails changes in the adaptability of educational processes at various levels, from primary to university, in the context of teaching a second lingua franca (Heymo & Danna, 2019).

Research findings reveal a lack of correspondence in adaptation between content and students, as the complexity level of the modules fails to align with the diverse social contexts of the learners. As a result, educators have found it necessary to flexibly utilize the modules based on their circumstances and requirements, at times deviating from the established course progressions. For instance, an English teacher used the third-year module with fourth-year students who had not received prior English instruction. However, even in such cases, a cautious selection of module activities is required, as the content can still prove overly intricate and elicit unforeseen responses.

In the aftermath of the pandemic, similar scenarios were observed where lower-level modules were used for higher-level students, leading to a misalignment with the intended learning objectives for those levels. Additionally, there were instances where modules for the corresponding year were continued, but certain topics not covered during the pandemic were omitted, exacerbating the educational gap.

On a separate note, concerning adaptation for students with distinct sensory and motor capabilities, English teachers must seek out engaging strategies and external resources to cater to this student group, as the pedagogical modules lack readily adaptable approaches and activities for this group. For instance, English teachers working with visually or audibly impaired students require educational materials that incorporate direct audio and video links to facilitate the teaching and learning process.

In this regard, the creation of digital educational resources that benefit all students indiscriminately becomes a paramount endeavor, leveraging the available technology to its fullest potential.

The third element, feedback, emerges as a pivotal component within the teaching-learning process by providing students with conclusive information about what they have learned, areas for improvement, and how to achieve it. In the context of the English modules (DER), the concluding section of the resource includes an explanatory chart that enables students to assess their learning by responding to questions, rather than making judgments about what should have been learned or providing reasons for not completing a task. However, upon analyzing the results obtained from the LORI-AD evaluation of these modules, it becomes evident that the feedback mechanism falls short of fulfilling its intended role. Instead, the provided open- ended responses lack illustrative instances or sections that offer guidance for interpreting the feedback. This outcome leads to an absence of markers for gauging advancements in learning progress throughout a given topic.

From the perspective of (Fuentes & Cortés, 2008) feedback acquires intentionality in the learning process and reveals its complexity in student responses. In this sense, he proposes three types of feedback:

Corrective feedback: Corresponds to a simple verification of knowledge about a topic.

Explanatory feedback: Provides a didactic explanation related to a topic that has already been reviewed and studied.

Suggestive feedback: Aims to moderate the criticality and intentionality of the problem, offering potential solutions and directing thinking towards collaboration and thematic preferences.

Among these categories, suggestive feedback stands out as the most used in the module. This is largely attributed to its direct and structured nature, contributing to the reliability and clarity of the learning experience. However, this inclination is closely tied to the outcomes of the LORI-AD evaluation, which underline a notable absence of specific feedback personalized to the responses provided in the DER activities. This limitation significantly restricts the potential for establishing robust cognitive learning within the framework of knowledge acquisition.

Lastly, while examining and evaluating the digital educational resources (DER) housed in the institutional repository of the Ministry of Education of Ecuador, the need to re-evaluate each of the elements and objectives proposed in these resources becomes apparent. As pointed out by (Taborda et al., 2019), the importance of a digital educational resource as a means of learning mediated by information and communication technologies (ICT) lies in its ability to meet specific criteria that enable students to assess their understanding and its influence on their learning process. Additionally, this underscores the necessity for educators to gauge the impact of these resources in both in-person and virtual second-language instruction, while considering their usability and functionality within the distinct context in which they are employed.

Conclusions

The findings from this study reveal notable weaknesses in the usability of digital educational resources applied by English educators in public institutions. These results highlight the necessity to reassess and enhance the elements and objectives of the available digital resources within the institutional repository of the Ministry of Education in Ecuador. This is essential to elevate these resources beyond mere repositories of digital information and to imbue them with the capacity to function as effective educational tools.

In the development of digital educational resources, it is crucial to consider key aspects, including an appealing and functional design, engaging and interactive content, accessibility for all users, and usability that aligns with international standards and established learning outcomes.

The present technical and professional analysis serves to ensure the quality of content and usability of digital educational resources, thereby fostering technological research in the field of foreign language instruction, particularly in the English language. It is crucial to focus on creating cutting-edge resources that contribute to narrowing the digital gap and promote the overcoming of current limitations through the adoption of innovative pedagogical approaches.
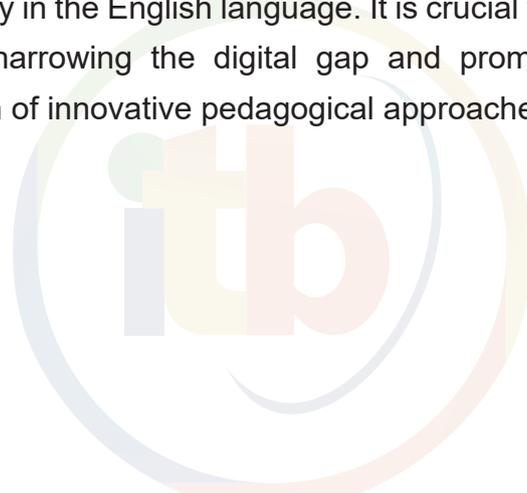
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