

La comprensión de textos mediante recursos educativos abiertos en Educación Básica Superior ecuatoriana

Comprehension of texts through open educational resources in Ecuadorian Higher Basic Education

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Recibido: 11 de diciembre de 2024

Revisado: 15 de enero de 2025

Aceptado: 17 de febrero de 2025

RESUMEN: La comprensión de textos es una habilidad fundamental en el proceso educativo, especialmente en la Educación Básica Superior. Este artículo explora el uso de Recursos Educativos Abiertos (REA) como herramientas efectivas, atendiendo al reconocimiento de las TIC para mejorar esta competencia en estudiantes ecuatorianos. Se analizan las características de los REA, su implementación en el aula y su impacto en el aprendizaje. Como resultado se modelan los fundamentos que potencian o sostienen el escenario áulico del profesor que le permita favorecer su desempeño profesional pedagógico al incentivar la integración y utilización de las tecnologías en la docencia.

Palabras clave: Herramientas tecnológicas; Comprensión de textos; Recursos educativos abiertos

ABSTRACT: Text comprehension is a fundamental skill in the educational process, especially in Higher Basic Education. This article explores the use of Open Educational Resources (OER) as effective tools, taking into account the recognition of ICT to improve this skill in Ecuadorian students. The characteristics of OER, their implementation in the classroom and their impact on learning are analyzed. As a result, the fundamentals that enhance or support the classroom scenario of the teacher are modeled, allowing him/her to favor his/her professional pedagogical performance by encouraging the integration and use of technologies in teaching.

Keywords: Technological tools; Text comprehension; Open educational resources

Introduction

Reading comprehension is essential for students' academic and personal development. In Ecuador, Higher Basic Education faces significant challenges related to the quality of learning and the lack of adequate didactic resources. Open Educational Resources (OER) emerge as a viable solution to

enrich the educational process, offering accessible and adaptable materials that can be used by teachers and students.

In the educational context, teachers need particular skills in terms of communication, pedagogy and cognition that allow them to plan and apply didactic methods and techniques to facilitate student learning. Through the use of technologies, students can build and improve their skills (Villarroell & Bruna, 2017 and Granda *et al.*, 2019).

For their part, Cacheiro *et al.* (2015), Lima and Fernandez (2017) and Amaya *et al.* (2021) highlight the relevance of continuous training for teachers, which should integrate technologies effectively and innovatively into their practice, from the beginning and throughout the curriculum.

Teacher training should be flexible and diverse, fostering the mastery and management of technology to: promote professional and academic development, improve teachers' pedagogical practice and develop essential digital competencies for the challenges of the 21st century (Cobena *et al.*, 2023, p. 11112).

This process entails a transformation in the disciplines, as well as in the roles of the teacher and the student. A solid preparation of the teacher in the use of Open Educational Resources (OER) for the development of reading comprehension is required.

OER are educational materials that are in the public domain or have been published under open licenses that allow their use, adaptation and redistribution. These resources include textbooks, videos, complete courses, and interactive activities. The Open Education Consortium defines OER as tools that promote equitable access to education. Teachers are then required to seek empowering strategies for teaching reading comprehension, which involves not only decoding words, but also interpreting, analyzing and reflecting on texts. According to UNESCO (2017), this skill is crucial for the development of critical thinking and active participation in society, for which several challenges are faced, the integration of digital tools and open educational resources (OER) in Higher Basic Education presents a series of challenges that can affect text comprehension. Some of these challenges are detailed below:

- Unequal access to technology: Not all students have access to digital devices or a reliable internet connection. This digital divide can limit the effectiveness of digital tools and OER.

- **Teacher training:** Many educators may be unfamiliar with the effective use of digital tools and OER. Lack of training can lead to ineffective implementation, which affects reading comprehension.
- **Information overload:** The abundance of resources available online can be overwhelming for students. Without proper guidance, they may have difficulty selecting and using relevant materials.
- **Digital distractions:** The use of electronic devices can lead to distractions, such as social networks or games that interfere with the reading and comprehension process.
- **Difficulties in assessment:** Assessing reading comprehension in digital environments can be complicated, as traditional tools may not be suitable for measuring skills acquired through OER.
- **Content adaptation:** Not all open educational resources are designed with specific curriculum or educational level needs in mind, which can hinder their effective integration.
- **Limited social interaction:** Group reading and discussion are essential for deep text comprehension. Digital tools can reduce face-to-face interactions between students and teachers.
- **Critical skills development:** It is essential to foster critical thinking when using digital resources; however, many students may lack the skills necessary to evaluate the quality and veracity of information available online.
- **Cultural and linguistic diversity:** OER must be inclusive and consider the diverse cultural and linguistic realities of the student body, which is not always easily achieved.
- **Sustainability and updating of content:** Open educational resources require constant maintenance to ensure their relevance and accuracy; however, this can be a logistical and financial challenge.

To address these challenges, it is essential to implement strategies that include continuous teacher training, development of digital competencies in students, creation of collaborative environments that foster active learning, as well as ensuring equitable access to appropriate technologies.

Development

The article presented here is based on macro-microsocial research, assuming its characteristics of being dynamic, participatory and active, contextualized from the praxis of the educational fact that

is visualized in the social and pedagogical route of the teacher. This study is based on a qualitative-descriptive approach that includes literature reviews on OER and its application in educational contexts similar to the Ecuadorian one. Interviews were conducted with Higher Basic Education teachers to identify their perceptions on the use of these resources. In order to carry out the study presented here on text comprehension through open educational resources in Ecuadorian Higher Basic Education, we recognized the training, improvement and preparation of teachers and the current challenges in the educational context. A variety of materials, techniques and methods were used, including academic documents: books, scientific articles, previous doctoral theses and research reports. Among the primary sources, interviews with teachers of Ecuadorian Higher Basic Education, education professionals and experts on the subject were considered in order to identify trends, challenges and best practices in teaching text comprehension from effective tools, taking into account the recognition of ICT to improve this competence in Ecuadorian students. Among the secondary sources, government reports, educational statistics, public policies related to training and Ecuadorian education were considered. We also worked from the dialogue of knowledge in relation to the treatment of the case study: selecting one or several specific cases of training programs in the educational context to analyze their effectiveness and the challenges they face, the use of participatory action research involves teachers and other relevant actors in the design and implementation of teaching strategies to address the identified challenges that may affect text comprehension.

Results and discussion

The integration of OER in Ecuadorian classrooms can significantly transform the approach to teaching reading comprehension. However, it is essential to train, overcome and prepare teachers not only in the technical use of these resources, but also in innovative pedagogical methodologies that promote active learning. The use of Open Educational Resources represents a valuable opportunity to improve the reading skills of students in Higher Basic Education in Ecuador. By providing access to diverse materials and fostering inclusive pedagogical practices, it can contribute to the development of reading comprehension.

The teachers interviewed stated that OER offer a variety of benefits such as:

- **Accessibility:** they allow all students to access educational materials at no cost.

- Interactive activities: Implement digital platforms where students can perform exercises related to the texts read.
- Collaborative projects: Encourage group work where different types of OER are used to investigate specific topics.

Several effective strategies were identified to enhance reading comprehension through OER:

- Guided reading: Use open texts accompanied by guides that orient students during reading.
- Interactive activities: Implement digital platforms where students can perform exercises related to the texts read.
- Collaborative projects: Encourage group work where different types of OER are used to investigate specific topics.

In contrast to the apathy towards reading, the great expectation and interest generated by working with computers and information and communication technologies (ICT) is observed, since nowadays the use of computers is widespread, as well as the Internet, which implies permanent reading on the web. “For today's children, tomorrow's adults, reading and writing should already be handling webs, elaborating hypertexts, e-mails, chatting through chat” (Cassany, 2006, cited by Belmonte, Buitrago & Herrera, 2009, p. 11), but some of the tasks on the Internet require readers to extend their traditional comprehension skills to new learning contexts, while others, such as electronic search and collaborative research projects on the Web, demand a fundamentally different set of new competencies that are not covered in most language curricula (Coiro, 2003). On the other hand, there is controversy regarding the effectiveness of the use of ICT in teaching (Rodríguez, 2011, p. 11).

The treatment to reading comprehension is conceived by researchers such as Pressley, M., & Afflerbach, P. (1995) in “Verbal Protocols of Reading: The Nature of Constructively Responsive Reading”. This book addresses how readers comprehend texts and can offer strategies that can be integrated with OER. Duke, N. K., & Pearson, P. D. (2002) in “Effective Practices for Developing Reading Comprehension.” This article reviews effective practices that could be supplemented with open resources. Hegarty, B., & Just, M. A. (2016) in “The Role of Open Educational Resources in Enhancing Learning Outcomes.” This study discusses how OER can positively influence learning and reading comprehension. García-Peñalvo, F. J., & Colomo-Palacios, R. (2013) in “Open

Educational Resources and Learning Outcomes: A Review”. This article reviews how OER can impact different areas of learning.

Text comprehension is a fundamental skill in the educational process, especially in Higher Basic Education, where students begin to face more complex and varied texts. In this context, digital tools and Open Educational Resources (OER) are presented as strategic allies to improve this competence. Next, we will explore how these tools can enhance reading comprehension in the classroom.

Access to a variety of content

OER are educational materials that are freely available and can be used, adapted and shared by anyone. This allows teachers to access a wide range of texts, from classic literature to contemporary scientific articles. By offering different types of content, the diverse interests and ability levels of students can be catered to, facilitating a better connection to the material.

Example:

- Platforms such as OER Commons or OpenStax offer open textbooks that can be used to supplement school curriculum.

Interactivity and active participation

Digital tools make it possible to create interactive experiences that encourage active student participation. Applications such as Kahoot! Quizlet or Edpuzzle allow the design of activities that involve the student in the reading of the text through quizzes, games or interactive videos.

Example:

- A teacher can use Edpuzzle to create a video about a specific text, inserting questions during the screening to assess student comprehension in real time.

Personalization of learning

Digital platforms offer options to personalize learning to each student's individual needs. Teachers can adapt open educational resources to create personalized pathways that address the areas where each learner needs the most support.

Example:

- Using Google Classroom, a teacher can assign different readings or activities based on the level of understanding demonstrated by each student on previous assessments.

Fostering collaborative learning

Digital tools facilitate collaborative work among students. Platforms such as Padlet or Google Docs allow students to work together on projects related to reading, sharing ideas and reflections on the texts read. Example:

- Students can create a collaborative document where they analyze a literary text, contributing their interpretations and comments on different passages.

Development of critical skills

The use of digital resources also promotes the development of critical thinking by allowing students to access multiple perspectives on the same topic. By reading different sources and formats (articles, blogs, videos), students learn to compare information and form informed opinions.

Example:

- A project could consist of researching a current topic using various digital sources (news, academic blogs) and then presenting your findings to the rest of the group.

Continuous assessment

Digital tools allow for continuous and instantaneous assessments of reading comprehension. Through online *quizzes* or teacher-moderated discussion forums, immediate feedback on student progress can be obtained.

Example:

- Platforms such as Socrative allow quick quizzes after reading a text to measure how well they have understood its content.

Teaching text comprehension faces a number of issues that can affect student learning. Some of the most frequent include:

- Decoding difficulties: many students have trouble decoding words, which hinder their ability to comprehend text. This can be especially common in children with dyslexia or other learning disabilities.

- Lack of vocabulary: A limited vocabulary can hinder comprehension. Students need to know and understand words in order to correctly interpret texts.
- Inadequate comprehension strategies: Many students have not been taught to use effective strategies for reading comprehension, such as making inferences, summarizing, or asking questions about the text.
- Disconnect between text and context: Sometimes texts are not relevant or interesting to students, which can lead to a lack of motivation and reduced comprehension.
- Difficulties with complex texts: Academic or literary texts can be difficult due to their structure, vocabulary, or abstract concepts, which can lead to frustration for students.
- Lack of practice and exposure: Lack of regular practice in reading and exposure to different types of texts limits the development of comprehension skills.
- Focus on memorization: In some educational contexts, memorization is prioritized over deep understanding of content, which impedes meaningful learning.
- Classroom diversity: Differences in reading skills among students can hinder effective teaching, as a one-size-fits-all approach does not meet individual needs.
- Influence of family environment: Family support and home environment can significantly influence reading skills and attitudes toward reading.
- Inadequate assessments: Standardized tests often fail to adequately assess reading comprehension skills, focusing more on mechanical aspects than on a comprehensive assessment of text comprehension.

Addressing these issues requires a comprehensive approach that includes differentiated strategies, fostering interest in reading, and continued development of the vocabulary and critical skills necessary for good reading comprehension.

In order to favor text comprehension through open educational resources in Ecuadorian Higher Basic Education, a teacher can pose various questions that stimulate critical thinking and reflection of students.

General text comprehension questions

What main ideas are presented in the text?

What are the arguments or evidence that support these ideas?

How does this text relate to others we have read previously?

What new vocabulary do we encounter and what is its meaning in the context of the text?

Questions to encourage critical analysis

What viewpoints are presented in the text and what are their implications?

Are there biases or limited perspectives in the information presented?

How might this text be interpreted from different cultural or social contexts?

Questions to connect with open educational resources

What open educational resources can complement our understanding of the topic covered in the text?

How can we use videos, infographics, or open articles to deepen our understanding of the content?

What interactive activities could we do using open resources to further explore the concepts in the text?

Questions to stimulate personal reflection

How does what we have read relate to our own experiences or prior knowledge?

What emotions or reactions does the content of the text provoke in us and why?

If you had to explain this text to someone else, how would you do it and what points would you highlight?

Questions to promote collaboration

In groups, what aspects of the text do you consider most relevant and why?

How could we create a collaborative project using open educational resources that addresses the themes of the text read?

These questions not only help students better understand the texts, but also encourage active and collaborative learning, making the most of the open educational resources available online.

Current Trends in Text Comprehension in Education

Text comprehension is a central topic in the educational sciences, and is currently addressed from various approaches as a holistic conception to understand and improve this process. Some of the most relevant approaches include:

1. Cognitive approach: This approach focuses on the mental processes involved in reading comprehension, such as memory, attention and reasoning. Cognitive strategies that readers use to interpret and retain information are studied.
2. Constructivist approach: From this perspective, text comprehension is considered to be an active process in which the reader constructs meaning from his or her previous experiences and knowledge. It emphasizes the importance of context and social interaction in learning.
3. Sociocultural approach: This approach emphasizes the role of social and cultural context in reading comprehension. It analyzes how factors such as family, school and community environment influence reading and comprehension skills.
4. Multimodal approach: With the rise of digital technologies, this approach examines how different modes of communication (text, images, audio) interact to facilitate or hinder comprehension. It investigates how students interpret texts that combine multiple formats.
5. Critical approach: This approach focuses on developing a critical awareness of the texts read, analyzing not only their content but also their social, political and ideological context. It seeks to empower readers to question and reflect on what they read.
6. Evidence-based approach: This approach uses empirical research to identify effective practices in teaching reading comprehension. It relies on quantitative and qualitative data to inform educational policies and pedagogical strategies.
7. Neuroeducation: The intersection between neuroscience and education has led to research on how brain processes work during reading and how this can influence more effective teaching methods.
8. Critical literacy: This approach promotes not only the ability to read traditional texts, but also to critically analyze different types of texts (including digital) within an ethical and social framework.

Each of these approaches provides a unique perspective on how the process of textual comprehension can be better understood, as well as effective strategies for teaching it in various educational contexts. The systematization of these approaches to text comprehension allows us to consider that it is a fundamental skill in the educational setting, as it not only allows students to foster critical thinking and analytical skills, which is a fundamental process that involves the ability to understand, interpret and analyze written information.

In the last years of the 20th century and the beginning of the 21st century, several trends have emerged in this field, driven by technological advances, pedagogical changes and a greater understanding of how students learn. The following are some of the most relevant trends in the teaching of reading comprehension.

Integration of digital technologies

Technology has transformed the way in which teaching and learning take place. Tools such as educational platforms, interactive applications and multimedia resources have facilitated access to varied texts and have allowed educators to personalize instruction. Digital reading has also introduced new dynamics, such as the use of hyperlinks and multimedia that enrich the context of the text.

Focus on critical reading

Contemporary education emphasizes not only literal comprehension of text, but also the development of critical skills. Educators are promoting strategies that invite students to question, analyze, and evaluate what they read. This includes discussions of bias, multiple perspectives, and historical or cultural contexts.

Project-based learning (PBL)

PBL is a methodology that promotes active learning through interdisciplinary projects where students investigate a specific topic. This trend fosters not only reading comprehension but also collaborative and creative skills by working with diverse texts to solve real problems.

Diversity and inclusion

Today's education seeks to be more inclusive by recognizing the diverse learning needs of students. This involves adapting reading materials for different ability levels and learning styles. Inclusion also encompasses cultural representation in selected texts to ensure that all students can see themselves reflected in what they read.

Metacognitive strategies

Fostering metacognition-awareness of how we learn-is another key trend in teaching reading comprehension. Educators are teaching students to reflect on their own thought processes as they read, which helps them identify effective strategies to improve their comprehension.

Ongoing formative assessment

Formative assessment is becoming an essential component of the educational process. Instead of relying solely on standardized tests at the end of the course, continuous assessments are being implemented to monitor student progress in real time and adjust pedagogical strategies as needed.

From the Ecuadorian reality, scholars who have contributed to the study of text comprehension and the teaching of reading stand out. Some of them are:

1. Carmen M. Cevallos (2013): She has worked on issues related to the didactics of language and literature, focusing on strategies to improve reading comprehension.
2. Carmen María Mera Ponce (2015): She has been dedicated to research on the development of reading skills in the Ecuadorian educational context.
3. Patricia Aguirre (2015) has conducted studies on the teaching of reading and writing, as well as on the difficulties faced by students in these processes.

From the international context, the following stand out in the subject of reading comprehension:

David Pearson (1970): known for his work on reading and comprehension strategies, he has influenced pedagogical methods to teach reading.

P. David Pearson and Margaret Gallagher (1983): Have researched how reading comprehension can be improved through different pedagogical approaches.

Louise Rosenblatt (1996): Her “*reader-response*” theory has been instrumental in understanding how readers interact with texts

Richard Allington (2013): Has worked extensively on effective practices for teaching reading and how these can impact school achievement.

These authors offer a variety of theoretical and practical perspectives that can be useful to better understand the processes involved in reading and its teaching, both in Ecuador and internationally manifest as regularities:

- The analysis of how text comprehension is taught and evaluated. This includes studies on didactic strategies that improve reading comprehension among students of different educational levels.

- Cultural and socioeconomic factors that influence students' ability to comprehend texts. These studies often highlight the importance of contextualizing learning to improve outcomes.
- Specific tools to measure reading comprehension in different age groups and educational contexts, adapted to the particularities of the educational system.
- In projects that integrate reading comprehension with other areas of knowledge, such as social sciences or literature, seeking to foster a more holistic approach to learning.
- The use and consumption of how digital tools can support the development of reading comprehension skills among students.

The teacher and the use of technologies

To take advantage of technologies, teachers need to improve their digital skills; therefore, they require constant training. This allows them to search, select, evaluate, assess and integrate technologies to create their own learning objects (LOs) and digital educational resources (DEs) to be used as complementary materials in the teaching and learning process (PEA).

To create OA and RED the teacher has to know the different technological tools which according to (Torrecilla, 2020)

They are those programs or applications that allow access to information, and are available to everyone, in most cases, free of charge. The use and application given to these tools will depend on the needs and characteristics of each user. (p. 1)

The above implies, according to the researcher Mulet *et al.* (2024)

In order to make use of technological tools, the teacher must take into account the use and consumption or pedagogical use of technologies, which is defined as the educational management carried out by the teacher to integrate them in a way that enriches teaching and student learning. This entails a reflective and strategic use of OA and RED, oriented to students' internalization of these contents aligned with their interests and needs, thus optimizing the educational benefits of technologies, which become space-time coordinates in the teacher's improvement and preparation. (p. 231)

In the systematization carried out with emphasis on the doctoral thesis of the researcher (Borrego, 2023) it is considered that there are several foreign and national authors who have dealt with the

subject of teacher preparation, among them: Añorga (1997, 2012), Addine (1998), Freire (1998), Valcárcel (1998), Blanco (1999), Valle (2001), Parra (2002), Chirino (2003), Ferrer (2002, 2005), Díaz (2004), among others. Their contributions are linked to the professional pedagogical activity of teachers in their initial training, the graduate, the professional pedagogical performance, the curricular conceptions that support them, their continuing education, the development of skills, competencies, improvement, professionalization, and training, with the purpose of human and professional improvement.

Different researches suggest deficiencies in some of the areas of training and preparation such as: The investigations of García Ramis (1990), Páez (1999), Aranguren (2000), Martínez (2001), Bermúdez (2001), Figueroa (2001), Ramírez (2005) and Ventura (2007) concerning the qualities, personal development skills and personality characteristics that should balance teachers stand out.

According to Álvarez de Zayas (1999), preparation is:

"One of the most important needs to be satisfied in any society, which becomes an essential problem of the same". With this judgment, he emphasizes that preparation, in the case of teachers, constitutes a set of training processes that make possible the continuous improvement of knowledge and basic and specific skills for better performance. (p. 23)

On the other hand, according to Borrego (2023)

The teacher's preparation is the primary and most important condition in the challenge posed to the school, precisely because they has to responsibly assume the difficult task of transforming the educational conditions by seeking procedures, methods and ways of working that correspond to the characteristics of each learner. At the same time, it must achieve progressive participation in the most authentic way from the just recognition, stimulation and development of the potentialities of its learners. (pp. 46-47)

The application of scientific research methods (documentary analysis, observation, survey and interview) made it possible to arrive at the regularities of the teachers' professional improvement process, grouped into strengths and weaknesses.

Strengths:

- Teachers' recognition of the advantages of the use of technologies in the teachers' self-improvement, as well as the need to obtain theoretical-practical knowledge for working

with technological tools that allows them to integrate them into the professional pedagogical process.

Weaknesses:

- In the professional improvement plans of teachers, there is no evidence of actions aimed at the improvement of teachers for the acquisition of new knowledge or development of skills for the use and consumption of technological tools that allow them to integrate them to the professional pedagogical process.
- There is no evidence of the use in the different organizational forms of the use of contents available in computer networks for the professional pedagogical process.
- There is insufficient theoretical knowledge of the essential characteristics of digital educational resources, licenses of use, repositories and cloud storage sites to the professional pedagogical process.
- There are insufficiencies in the development of skills for working with technological tools, digital educational resources and the computer network.

Teachers consider it appropriate to propose:

- Those actions are developed to enhance theoretical-practical knowledge in the technological tools referred to in the survey.
- That they be given different forms of training and preparation to increase their knowledge on the use and consumption of technological tools for their use in the teaching process.

These regularities express the need for teachers to achieve a preparation in the conceptual, procedural and attitudinal contents related to digital tools, to develop effective educational programs that promote critical and comprehensive reading skills among students, some of them are named as:

Productivity tools: applications or software that helps users manage their time, tasks, and projects more efficiently. Examples include Microsoft Office, Google Workspace and Trello.

Communication tools: Platforms that facilitate interaction between people, either in real time or asynchronously. Examples include Slack, Zoom and Microsoft Teams.

Collaboration tools: Software that allows multiple users to work together on projects or documents, regardless of their physical location. Examples include Google Docs, Asana and Miro.

Graphic design tools: Programs that allow you to create and edit images, graphics and other visual elements. Examples include Adobe Photoshop, Canva and Figma.

Data analysis tools: Software that helps collect, process and analyze data to obtain useful information. Examples include Excel, Tableau and Google Analytics.

Learning management tools (LMS): Platforms designed to facilitate online education by managing educational content and tracking student progress. Examples are Moodle, Blackboard and Canvas.

Digital marketing tools: Applications that help companies promote their products or services online through strategies such as SEO, social media advertising and email marketing. Examples are HubSpot, Mailchimp and Hootsuite.

Web development tools: Software used to create and maintain websites, including code editors, content management systems (CMS) and *frameworks*. Examples are WordPress, GitHub and Visual Studio Code.

Cyber security tools: Software designed to protect computer systems against malicious attacks or unauthorized access. Examples include antivirus such as Norton or McAfee, as well as *firewalls*.

Cloud storage tools: Services that allow data to be stored on remote servers accessible via the Internet, facilitating access from anywhere with a network connection. Examples are Google Drive, Dropbox and OneDrive.

These digital tools can dynamize and transform the way in which the educational process is oriented, organized and planned.

Teachers who seek to promote text comprehension in Higher Basic Education through open educational resources (OER) face different challenges. Some of the most relevant are:

1. Access and familiarization with OER

- Challenge: Not all teachers are familiar with the use of open educational resources and do not know how to integrate them into their pedagogical practice.
- Solution: Continuous training and workshops on the use and creation of OER.

2. Selection of appropriate resources

- Challenge: The large number of available resources can make it difficult to select those that are relevant and appropriate for the educational level and specific needs of students.

- Solution: Establish clear criteria for OER selection based on specific pedagogical objectives.

3. Diversity of learning styles

- Challenge: Students have different learning styles and paces, which may make an open resource ineffective for all.
- Solution: Use a variety of OER that address different styles (videos, infographics, and interactive texts) and allow students to choose those that best suit their needs.

4. Curricular integration

- Challenge: Effectively integrating OER into the existing curriculum can be complicated, especially if there is no alignment with established educational objectives.
- Solution: Design activities that directly link OER to the competencies and content of the curriculum.

5. Assessment of learning

- Challenge: Assessing reading comprehension through the use of OER can be complex, as these resources may not have integrated tools to measure learning.
- Solution: Develop clear rubrics and alternative methods (such as self- or peer-assessments) to assess comprehension.

6. Students Motivation

- Challenge: Some students may show resistance to the use of new resources or technologies, preferring traditional methods.
- Solution: Foster a positive learning environment by gradually including OER and demonstrating their practical benefits.

7. Technological capabilities

- Challenge: Not all teachers or students have the same technological skills, which can limit the effective use of OER.
- Solution: Provide basic training in digital tools to both teachers and students.

8. Constant updating

- Challenge: Open educational resources must be updated regularly to stay relevant; this requires time and effort on the part of the teacher.
- Solution: Create a collaborative network among teachers to share updates on new resources and effective practices.

9. Socio-cultural context

- Challenge: Sociocultural differences among students can influence their reading comprehension; some OER may not be culturally relevant or accessible.
- Solution: Adapt or create materials that reflect the cultural diversity of the student body.

To overcome these challenges, it is essential to foster an educational culture open to change and innovation, where both teachers and students feel supported in their teaching-learning process through the effective use of open educational resources. Collaboration among teachers, as well as continuous training, are keys to successful implementation.

Conclusions

Text comprehension through open educational resources (OER) in Higher Basic Education should consider accessibility and equity, diversification of resources with a variety of formats (texts, videos, infographics, etc.) that can cater to different learning styles such as autonomous, expressed in self-directed learning, and to individual needs, which improves reading comprehension. Thus, students can access the materials at any time and place, allowing them to advance at their own pace.

At the same time, it enhances the development of critical and analytical thinking in students, since it encourages the comparison between different sources and perspectives on the same topic, as well as collaboration and social learning through online platforms where ideas can be shared and content can be discussed, all of which enriches their collective understanding.

Likewise, teacher training is consolidated by prioritizing the training of teachers in the use and integration of OER to maximize their potential in the classroom and ensure that they are used appropriately to improve reading comprehension. In this sense, continuous evaluation is essential to adjust pedagogical strategies and ensure that they really contribute to the development of reading skills.

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