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Digital Tools for Remote Assessment Used by Teachers in Educational Institutions

Herramientas digitales para la evaluación a distancia utilizadas por docentes en unidades educativas

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Abstract

Within the current educational context, digital tools for remote assessment have evolved considerably as part of teaching and learning processes, reshaping how teachers evaluate their students. This study set out to analyze the digital tools used for remote assessment by teachers at PCEI Hno. Ángel Pastrana Corral fiscomisional educational institution during the first bimester of the 2024–2025 school year, Cycle 1. The research followed primarily a deductive method with a quantitative approach, a descriptive scope, and a cross-sectional design. Data were collected through a questionnaire administered as a survey to one hundred and ten (110) teachers at the institution. The findings identified ten digital tools for remote assessment, which are presented in a characterization table; on the Likert scale, Quizizz and Kahoot were the tools most frequently reported as being used “always,” Peergrade, Quizizz, and Kahoot as being used “sometimes,” and Nearpod, Playposit, Peergrade, Edulastic, and CoRubrics as “never” used. In descending order of use, the tools were Quizizz and/or Kahoot, followed by Peergrade and Nearpod.

Keywords: digital tools, teachers, remote assessment

Resumen

En el contexto educativo actual, el uso de herramientas educativas digitales para la evaluación a distancia ha ido evolucionando significativamente en los procesos de enseñanza y aprendizaje, respecto a cómo evalúan los docentes a sus estudiantes; consecuentemente, esta investigación permitió analizar las herramientas digitales utilizadas para la evaluación a distancia por los docentes de la unidad educativa fiscomisional PCEI Hno. Ángel Pastrana Corral en el primer bimestre del año lectivo 2024-2025, Ciclo 1, con una metodología fundamentada principalmente en el método deductivo, con un enfoque cuantitativo, un alcance descriptivo y un diseño de estudio transversal. El instrumento de recolección de datos empleado fue un cuestionario elaborado y aplicado a partir de una encuesta a ciento diez (110) docentes de la institución educativa. Por consiguiente, los resultados obtenidos de esta investigación permitieron identificar 10 herramientas digitales para la evaluación a distancia, las cuales están establecidas en una tabla de caracterización, donde las más utilizadas en la escala de Likert fueron, en “siempre” Quizziz y Kahoot, en “a veces” Peergrade, Quizizz y Kahoot y en “nunca” Nearpod, Playposit, Peergrade, Edulastic y CoRubrics. Cuyo análisis resumido de utilización descendente fue Quizziz y/o Kahoot, Peergrade y Nearpod.

Palabras clave: herramientas digitales, docentes, evaluación a distancia.

Introduction

Digital tools have reshaped education, adapting to a wide range of teaching methodologies. Their use not only helps students build skills essential to their professional performance but also prepares them to face a constantly changing world. This study analyzes the tools used for remote assessment by teachers at PCEI Hno. Ángel Pastrana Corral fiscomisional educational institution during the first bimester of the 2024-2025 school year, Cycle 1.

The problem addressed here draws on Castañeda et al. (2020), who note that although teachers are generally familiar with basic technology, many lack training in specialized platforms and tools for remote assessment. This gap limits their effectiveness in distance-education settings and indicates that a lack of advanced digital competencies among teachers affects the quality and efficacy of remote evaluation.

To meet the objectives of this study, the work of Vélez et al. (2023) was also taken into account; these authors point out that teachers' adoption of digital tools remains insufficient, which has a negative effect on remote assessment practices. Picón (2020), for his part, argues that despite the growing number of digital tools capable of transforming learning assessment, a significant gap persists between the availability of these tools and their actual implementation by teachers. This underuse constitutes a considerable obstacle to achieving quality education in the digital era.

This study is further justified by the need to identify the digital tools used for assessing students remotely, since these instruments not only support the effective acquisition of necessary skills but also promote inclusive learning; through their use, students can enjoy a more immersive and personalized learning experience (Peng et al., 2023). Some scholars, such as Macías and Acuña (2022), argue that integrating digital tools into the current educational model can transform traditional education and plays a key role in improving teaching and learning processes.

Finally, given the descriptive nature of this study, one limitation worth noting is the scarcity of local bibliographic sources, which makes it difficult to gain a contextual understanding of educational conditions in the province; in addition, the information available in various regional repositories and scientific databases is outdated. Recognizing this type of limitation is therefore important when designing future research, along with the need to update and expand local data sources. This study is also intended to serve as a foundation for future research on the use of digital tools for remote assessment.

Methodology

This study was carried out using the deductive method, with a quantitative approach, a descriptive scope, and a cross-sectional design. It serves as a source of information through which the digital tools used by teachers for remote assessment were identified. The technique applied was a survey, and the research instrument consisted of a questionnaire developed on the basis of the Instituto Nacional de Tecnologías Educativas y de Formación del Profesorado (INTEF, 2020), using a Likert-type rating scale. The study population consisted of thirty-two (32) members of the educational institution, while the sample comprised 110 teachers who provide remote instruction at Unidad Educativa Fiscomisional PCEI Hno. Ángel Pastrana Corral during the first bimester of the 2024–2025 school year, Cycle 1.

A structured questionnaire based on the INTEF (2020) framework was then developed and administered as a survey to teachers at the aforementioned institution in order to identify the digital tools used in the remote assessment process. The instrument was applied to the 110 participating teachers, and the resulting data were analyzed using descriptive statistics; a frequency analysis was conducted in Microsoft Excel, which was also used to generate the charts illustrating the findings. Ethical standards were observed throughout, and participants were guaranteed anonymity and confidentiality.

Results

Table 1. Characterization of the sample

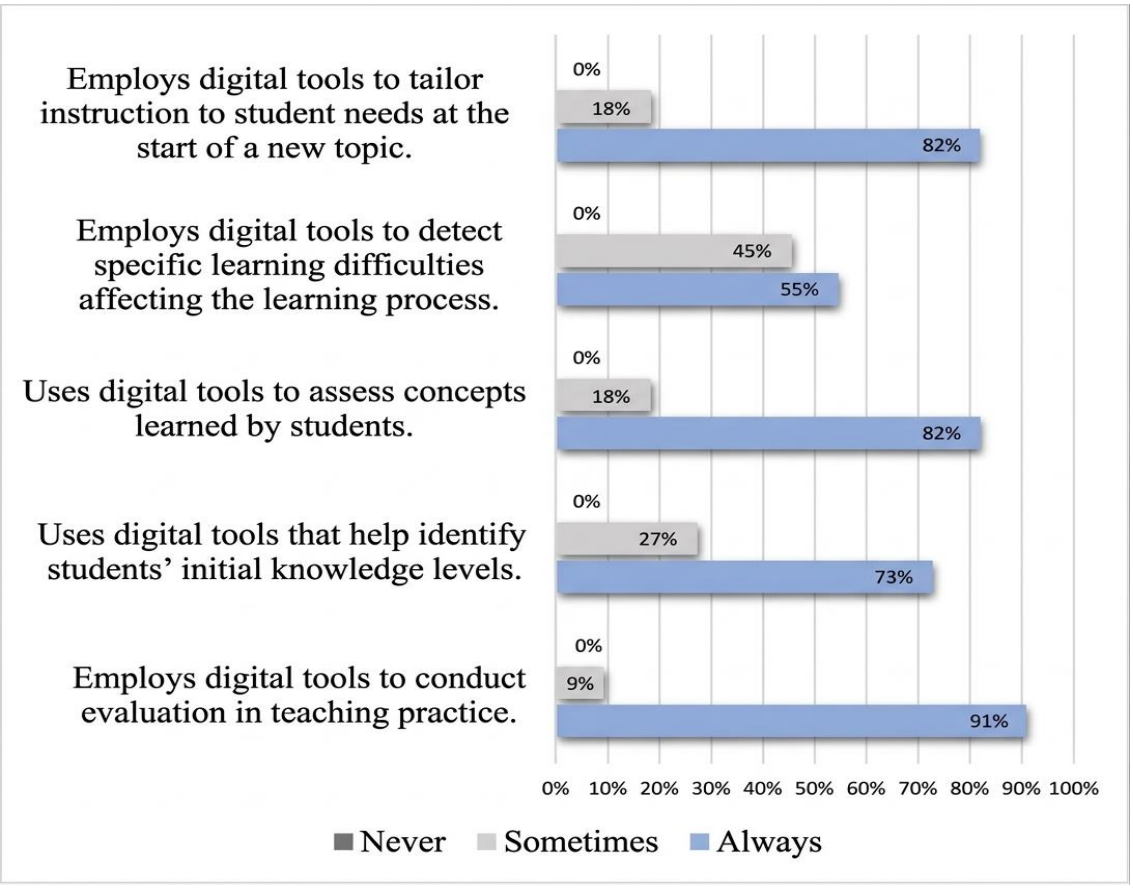
Sex	**Male**	27%	
	Female	73%	
Age in Years	**20 to 30**	**31 to 40**	**41 or more**
		55%	45%
Level of Education	**Undergraduate**	**Graduate**	
	18%	82%	
Years of experience as a teacher	**0 to 10**	**11 to 20**	**21 or more**
	36%	45%	18%

Note: Data obtained from the survey administered to teachers at PCEI Hno. Ángel Pastrana Corral fiscomisional educational institution.

As shown in Table 1, the general demographic data for the population considered in this study indicate that female teachers predominate, accounting for 73%, compared with 27% for male teachers. Regarding age, 55% of teachers were between 31 and 40 years old, while 45% were 41 or older. With respect to educational attainment, 18% of teachers held an undergraduate degree and 82% held a graduate degree. Finally, in terms of years of experience, 36% of teachers had between 0 and 10 years, 45% had between 11 and 20 years, and 18% had more than 21 years of teaching experience.

The second section of the questionnaire focused on measuring how frequently teachers use digital tools for remote assessment. A Likert-type frequency scale was used to capture the varying degrees to which these practices have been adopted. Figure 1, presented below, visually summarizes the results obtained in this section and is essential for interpreting the trends and behaviors identified in the survey.

Figure 1. Tools for remote assessment, obtained from the survey titled "Digital tools for remote assessment"

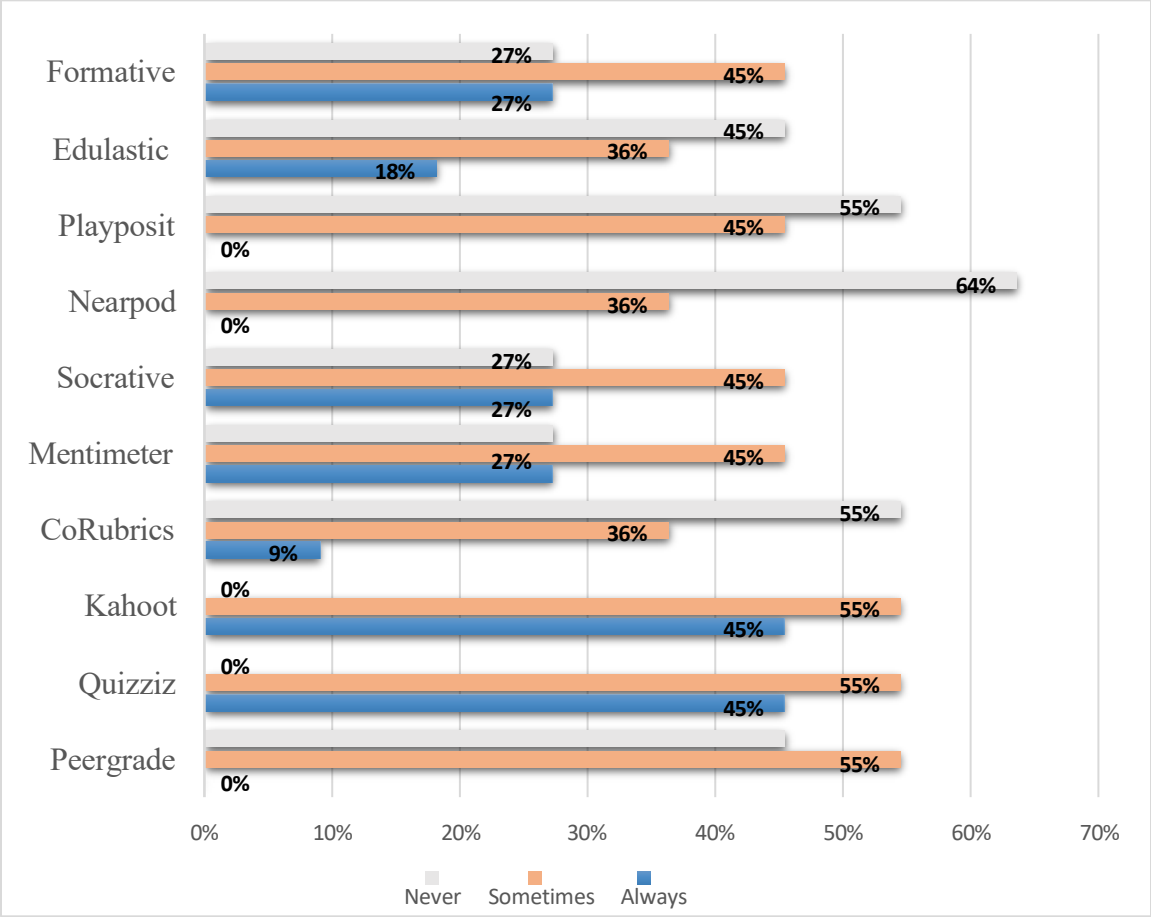


According to the data presented in Figure 1, the "always" frequency rating can be interpreted as follows: the items "uses digital tools to carry out assessment in teaching practice" and "uses digital tools to identify concepts learned by students" both reached 82%, followed by the item "uses digital tools to adjust instruction to students' needs at the start of a new topic," which reached 255%. The item "uses digital tools that help identify students' baseline level of knowledge" registered 73%, while "uses digital tools to detect specific difficulties affecting students' learning process" reached 55%.

For the "sometimes" frequency rating, 18% corresponds to the item "uses digital tools to detect specific difficulties affecting students' learning process," followed by "uses digital tools that help identify students' baseline level of knowledge" at 27%. The item "uses digital tools to identify concepts learned by students" registered 18%, as did "uses tools to adjust instruction to students' needs at the start of a new topic." Finally, "uses digital tools to carry out assessment in teaching practice" reached 9%. For the "never" frequency rating, no results were found, since this option was not selected for any of the items.

Similarly, the third section of the questionnaire addresses the use of digital tools for remote assessment; Figure 2 presents the data obtained from teachers at the institution.

Figure 2. Use of digital tools for remote assessment, obtained from the survey titled "Digital tools for remote assessment"



Regarding the data shown in Figure 2, titled "Tools for remote assessment," the "always" frequency rating produced the following results: use of Quizizz and Kahoot predominates, at 45%; Mentimeter and Socrative follow, at 27%; 18% of educators use Edulastic, while CoRubrics is used by 9% of teachers.

For the "sometimes" frequency rating, Peergrade, Quizizz, and Kahoot stand out at 55%, followed by Mentimeter, Socrative, Playposit, and Formative at 45%. CoRubrics, Nearpod, and Edulastic show the lowest values, with 36% of teachers reporting occasional use of these tools for remote assessment.

As for the "never" frequency rating, the data break down as follows: Nearpod reaches 64%, making it the least-used tool among teachers, followed by CoRubrics and Playposit, at 55% each; Peergrade and Edulastic register 45%. Finally, Mentimeter, Socrative, and Formative show the lowest value, at 27% each.

Discussion

Digital tools include all the applications, platforms, and technological resources used by teachers and students in academic activities to facilitate teaching and learning, as well as the software and hardware that computers require to support a wide range of educational activities. One of their main advantages lies in their accessibility and relative ease of use, features that encourage widespread adoption (Tello et al., 2023).

The use of these digital tools in education is therefore highly relevant to teaching practice and has a direct effect on the learning process. As several authors note, “technological progress has provided education, across its various modalities, with a range of media and resources; society has moved from an industrial era to an information era, which emerges and develops within the digital age and the knowledge economy” (Berrocal & Aravena, 2021, p. 4).

This study, accordingly, focuses on the digital tools for remote assessment established by INTEF (2020) and draws on a review of the literature by several authors, including Tello et al. (2023), Walss (2021), Berrocal and Aravena (2021, p. 4), Gallegos et al. (2021), Padilla (2021), INTEF (2020), Collaguazo (2019), the Ministerio de Educación del Ecuador (2020), Zambrano (2019), Quesada (2020), the Norma técnica de educación a distancia (2023), and Márquez (2023). The deductive method used in this study is likewise appropriate, since it allows the research to proceed from the general to the particular in pursuit of the stated objectives.

Within this framework, the general research question: what is the analysis of the tools used for remote assessment by teachers at PCEI Hno. Ángel Pastrana Corral fiscomisional educational institution during the first bimester of the 2024–2025 school year, Cycle 1? guided the development of the Curricular Integration Project. It comprises two specific questions, which are addressed through a review of the literature and the analysis and interpretation of the data collected during the study.

Turning first to the specific question of which tools have been identified for remote assessment, a literature search was conducted across university repositories and scientific databases, yielding ten (10) digital tools for remote assessment. These tools, it should be noted, are those set out by INTEF (2020): Quizizz, Kahoot, CoRubrics, Mentimeter, Socrative, Nearpod, Playposit, Edulastic, and Formative. Among these, INTEF also includes Peergrade, a platform that supports peer assessment and formative evaluation, confirming what Walss (2021) has argued, namely, that digital assessment tools take the form of programs and applications with varied pedagogical features that allow them to be adapted and applied across the different teaching approaches used by educators. In this sense, such tools can be incorporated into the teaching–learning process, helping identify which academic outcomes have been achieved and which remain outstanding in relation to the learning objectives set out in lesson plans.

The second specific question, concerning the diagnosis of the tools used for remote assessment by teachers at PCEI Hno. Ángel Pastrana Corral fiscomisional educational institution during the first bimester of the 2024–2025 school year, Cycle 1, is likewise addressed. The data collected show, for the “always” rating, an intermediate percentage for the item “uses digital tools to carry out assessment in teaching practice,” while the items “uses digital tools to identify concepts learned by students,” “uses digital tools to adjust instruction to students' needs at the start of a new topic,” and “uses digital tools that help identify students' baseline level of knowledge,” together with “uses digital tools to detect specific difficulties affecting students' learning process,” register lower frequencies on this same “always” scale. For the “sometimes” rating, the most prominent item is “uses digital tools to detect specific difficulties affecting students' learning process,” followed by “uses digital tools that help identify students' baseline level of knowledge,” “uses digital tools to identify concepts learned by students,” and “uses tools to adjust instruction to students' needs at the start of a new topic,” with “uses digital tools to carry out assessment in teaching practice” ranking last on this scale. These findings corroborate what INTEF (2020) has established: that the use of digital tools within the educational process is an important factor in helping students understand the content covered in class.

Likewise, with respect to the specific digital tools used for remote assessment, the “always” scale shows the highest percentages for Quizizz and Kahoot, followed by Mentimeter and Socrative, and then Edulastic, Formative, and CoRubrics. On the “sometimes” scale, Peergrade, Quizizz, and Kahoot stand out, along with Mentimeter, Socrative, Playposit, and Formative, followed by CoRubrics, Nearpod, and Edulastic. For the “never” rating, Nearpod ranks as the least-used tool among teachers, followed by CoRubrics and Playposit, then Peergrade and Edulastic, and finally Mentimeter, Socrative, and Formative, consistent with Gallegos et al. (2021), who argue that digital tools serve as means of interaction and communication that adapt readily to a range of instructional and training activities. In this context, the digital era is increasingly taking hold in classrooms through a broad array of teaching tools, giving students fast, accessible avenues for expanding their knowledge across multiple dimensions.

Turning to the general research question, what is the analysis of the tools used for remote assessment by teachers at PCEI Hno. Ángel Pastrana Corral fiscomisional educational institution during the first bimester of the 2024–2025 school year, Cycle 1? the results show that Quizizz and Kahoot are the digital tools most frequently used by teachers, followed by Peergrade, while Nearpod is never used in the remote assessment process.

Finally, the methodology used in this study made it possible to answer all of the questions posed and contributed to the fields of teaching and educational technology by analyzing the digital tools used for remote assessment by teachers at PCEI Hno. Ángel Pastrana Corral fiscomisional educational institution. Given the descriptive nature of the study, however, one limitation should be acknowledged: the scarcity of local information, which makes it difficult to obtain a contextual understanding of educational conditions in the province; furthermore, the information available in various regional repositories and scientific databases is outdated. Identifying this type of limitation is therefore important for future research, along with the need to update and expand local data sources. This study likewise provides a foundation for future work on the use
of digital tools for remote assessment.

Conclusions

The study of the semantic representation of bilateral tensions between the United States and Venezuela across four news articles made it possible to identify how journalistic discourse organizes and modulates the meaning of an international conflict through lexical choices, verbal structures, and the articulation of interpretive frames. The findings show that language functions as a central axis in the media construction of events, in line with the account of Lyons (1997) about meaning modulation and with the sociocommunicative view of discourse developed by Van Dijk (2000).

First, the analysis of the individual news items showed that confrontation is the predominant semantic axis (≈ 45%), expressed through verbs of force, metaphors drawn from the military domain, and expressions conveying urgency or imminence. This predominance contributes to a representation of the international scenario as a space of strategic tension.

Second, the threat/defense axis (≈ 35%) is built through evaluative nouns, passive-voice structures, and discursive constructions that emphasize consequences over agents. This axis complements the first by offering an interpretive frame in which actors' actions are understood in terms of their political and symbolic significance.

Finally, the dialogue/diplomacy axis (≈ 20%) introduces nuances that soften the representation of the conflict. The presence of communication verbs, cordial qualifiers, and references to spaces for negotiation shows that media discourse is not limited to reproducing tension but also draws on semantic resources that open up alternative interpretive possibilities.

The interaction of these three axes reveals that media representations of the bilateral conflict are built through overlapping layers of meaning, in which tension and diplomacy coexist as complementary dimensions. This configuration confirms that journalistic discourse operates as a mechanism of symbolic construction that not only informs but also shapes public perception within dynamic geopolitical contexts.

Recommendations

Media outlets are encouraged to draw on a wider range of sources and voices in their international coverage, including institutional, academic, and neutral-observer perspectives, in order to offer readers a fuller, more balanced interpretive frame for understanding the conflict from multiple angles.

It would likewise be useful for coverage to balance reporting on confrontation with attention to diplomatic efforts and opportunities for dialogue. Highlighting these elements helps convey the complexity of the geopolitical situation and keeps public perception from being reduced to military tension alone.

Journalists should also pay close attention to verbal voice and modality, clearly distinguishing confirmed facts from statements, hypotheses, or interpretations. Doing so helps reduce ambiguity and allows audiences to distinguish between actual events and the perceptions or judgments of the actors involved.

Finally, media outlets can contextualize semantically loaded terms and war-related metaphors by briefly explaining their historical or political background and pairing them with language that conveys negotiation, communication, or cooperation. This practice preserves informative depth without distorting readers' interpretation of events or heightening the perception of conflict.

Overall, applying these recommendations helps journalistic language fulfill not only its informative function but also its role as a symbolic mediator, supporting a more nuanced understanding of events and strengthening the public's capacity to critically interpret international conflicts.

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