



Authentic Assessment Strategies for Learning in Higher Education: A Systematic Review for Quality Improvement

ABSTRACT

Adaptarse a las demandas sociales y académicas exige que las universidades implementen una serie de cambios didácticos y pedagógicos, siendo la evaluación auténtica un elemento clave. Si bien ha sido ampliamente estudiada a lo largo del tiempo, la evaluación auténtica se considera actualmente un medio crucial para mejorar la calidad educativa. Por lo tanto, esta investigación busca identificar estudios relevantes sobre la evaluación auténtica en el contexto de la educación superior y en relación con la mejora de la calidad educativa. Se realizó una revisión sistemática de la literatura de los últimos diez años, siguiendo el método PRISMA. La muestra consta de 36 artículos publicados en revistas de alto impacto sobre el tema. Entre los principales hallazgos, destaca el interés internacional en este tipo de evaluación. Además, se identificó una amplia variedad de enfoques y herramientas utilizados para implementar con éxito la evaluación auténtica, lo que se traduce en mejores resultados educativos para los estudiantes. En consecuencia, se puede concluir que la evaluación auténtica constituye una vía eficaz para avanzar en la calidad educativa, en línea con las recomendaciones de la Agenda 2030.

Adapting to social and academic demands requires universities to implement a series of didactic and pedagogical changes, with assessment of student progress being a key element. While widely studied over time, authentic assessment is currently considered a crucial means to improve educational quality. Therefore, this research aims to identify relevant studies on authentic assessment in relation to improving educational quality and in the context of higher education. The research team conducted a systematic review of the literature from the last ten years following the PRISMA method. The sample consists of a total of 36 articles published in high-impact journals on the subject. Among the main findings, an international interest in this type of assessment stands out. In addition, higher education institutions are using a variety of approaches and tools to successfully implement authentic assessment, resulting in improved educational outcomes for students. Consequently, it can be concluded that authentic assessment is another means of working toward educational quality in line with the recommendations of the 2030 Agenda.

KEYWORDS

authentic assessment, quality education, higher education assessment, educational improvement

INTRODUCTION

Universities, as fundamental pillars of society and engines of knowledge, are currently at an unprecedented crossroads. In the twenty-first century, these institutions are not only expected to uphold their traditional roles in teaching and research but also to adapt to a dynamic and changing global landscape. The major challenges universities face today are multifaceted (social, educational, economic, and health-related) and demand deep reflection and strategic adaptation so that they remain relevant and contribute effectively to social progress (CRUE: The association that brings together Spanish universities 2021; European Commission 2021; OECD: Organisation for Economic Co-operation and Development 2024)

Focusing on the educational and social perspective, universities must address major challenges in order to provide quality education. Among these challenges are the objectives set out in the 2030 Agenda, which emphasize the inclusion of the 17 Sustainable Development Goals (SDGs), particularly goal four: “Ensure inclusive, equitable and quality education and promote lifelong learning opportunities for all.” University educators are, therefore, called upon to update traditional teaching practices to design inclusive, equitable, and high-quality learning processes that meet the needs of all students, regardless of their individual characteristics.

This approach requires institutions to integrate sustainability into the educational curriculum; sustainability in this context means the need to raise awareness and to structure university teaching around content that is directly connected to sustainability (Pegalajar, Burgos, and Martínez-Valdivia 2021; Tejedor et al. 2019). This involves planning curricula that actively contribute to the development of the SDGs (United Nations 2015). As a result, there is an increasing need to support faculty development through new training models that enable the transversal integration of sustainability (Alcalá del Olmo-Fernández, Santos-Villalba, Leiva-Olivencia, and Matas-Terrón 2020; Aleixo, Leal, and Azeiteiro 2018).

In this context, the didactic act that takes place in the classroom becomes crucial. It involves the interaction between students, teachers, content, and methodology—components that must be closely interlinked for learning to be meaningful for all students (Domingo and Pérez 2015). Among these elements, assessment plays a central role in shaping educational planning. For this reason, extensive academic research has focused on it (Boud 2020; Cano 2008; Rodríguez, Restrepo, and Luna 2016; Vallejo and Molina 2014). When thoughtfully designed and implemented in connection with other instructional elements, assessment not only enhances student performance but also improves the overall quality of the teaching–learning process.

The UNESCO (2022) report “Reimagining Our Futures Together: A New Social Contract for Education,” further reinforces this perspective; the report envisions the future of education and calls for a pedagogy rooted in cooperation, collaboration, and solidarity, with assessment practices aligned to these principles. The report argues against standardized testing, as it may promote competition among students and may reduce them to rankings based on performance. Instead, it highlights the need for formative, participatory, and student-led assessment as a pathway toward quality, equitable, and inclusive education, in line with SDG 4.

In the context of higher education, as in any other educational level, assessment constitutes a central axis of the teaching and learning processes. Traditionally, educators used standardized tests and written examinations as the predominant tools for measuring knowledge. However, various studies suggest that this approach is limited in its capacity to comprehensively evaluate the competencies required of future professionals in today’s society (Baquero-Vargas and Pérez-Salas 2023; Way, Burrell, D’Allura, and Ashford-Rowe 2020).

Authentic assessment emerges as a pedagogical alternative aimed at overcoming these limitations; it focuses on problem-solving, projects, or meaningful tasks that reflect the demands of the professional and social world. According to Fawns et al. (2024), this type of assessment not only measures knowledge but also evaluates students' ability to transfer it to complex scenarios, thereby fostering deeper and more enduring learning.

A key aspect of authentic assessment lies in its connection with the development of twenty-first century skills, such as critical thinking, communication, creativity, and collaboration (Ravi and Besharat 2025). These competencies, essential in professional contexts and aligned with the 2030 Agenda, are difficult to assess effectively through traditional instruments. At the same time, multiple studies (Nieminen and Boud 2024; Sokhanvar, Salehi and Sokhanvar 2021) have demonstrated that authentic assessment enhances the learning experience and strengthens the employability of university graduates. Recent findings also reveal that when students perceive assessment as authentic and relevant, their interest and engagement with academic tasks increase, thereby improving student motivation (García-Gómez 2024). This effect is largely due to the alignment between curricular content and real-world situations (Baquero-Vargas et al. 2023).

Moreover, authentic assessment promotes self-regulation and autonomy by incorporating processes such as self-assessment and peer assessment, which place the student at the center of their own educational development (Nieminen et al. 2024). In this way, it cultivates a professional profile that is critical, reflective, and capable of making informed decisions across diverse contexts.

Thus, university assessment remains a relevant and pressing issue, as some institutions and educators continue to use traditional approaches and instruments despite their misalignment with current educational and societal demands (Panadero, Fraile, Fernández, Castilla-Estévez, and Ruiz 2019). In this regard, authentic assessment represents a necessary pedagogical update, well aligned with both national and international educational challenges.

Authentic assessment, approaches, and instruments

Authentic assessment is not a recent innovation, and it gained considerable relevance several years ago. Despite its significant impact in educational research, its implementation in teaching practice remains limited (Cubero and Ponce 2020).

Authentic assessment is understood as a democratic approach aimed at transforming cultural perspectives (Márquez, Llamuca, García, and Diaz 2022). It requires students to engage with complex, real-life tasks by drawing on prior knowledge (García-Gómez 2024; Vallejo et al. 2014). Central to this approach is the coherence between learning and assessment objectives, as well as the provision of constructive feedback to facilitate student progress (Macazana, Rodríguez, Collazos, Pastor, and Castañeda 2022).

Typically, authentic assessment emphasizes student participation and integrates processes such as self-assessment and peer assessment, reinforcing its participatory and democratic nature (Ibarra and Rodríguez 2014). In other words, it seeks to evaluate not only the acquisition of theoretical knowledge but also students' ability to apply what they have learned in meaningful, real-world contexts (Way et al. 2020). Unlike traditional testing, this model stresses the transfer of learning to practical settings, fostering deeper and more enduring learning (Nieminen et al. 2024).

From this assessment model, different assessment approaches emerged, such as formative assessment, which consists of continuously assessing the student throughout the learning process, taking into account previously established criteria (Cañadas 2020). Alternatively, other approaches include assessment for learning rather than assessment of learning; inclusive assessment designed to benefit all students; assessment of comprehensive student development, which values the cognitive

and socio-affective aspects of students; optimistic assessment, which is understood as an assessment that values student progress, highlighting the positive aspects; and fair assessment, which values the actual progress of students (Gómez and García 2017).

To effectively implement authentic assessment, scholars recommend a combination of quantitative (e.g., written and objective tests) and qualitative techniques (e.g., observation, oral presentations) (Gómez et al. 2017). A wide range of tools can also be employed, such as evaluation wheels, learning journals (Murillo-Llorent, Teresa, Navarro-Martínez, Ibáñez-Del Valle, and Pérez-Bermejo 2021; Yuka, Pereira, MacCarthy, Stevanato, Cardoso, and Galatti 2023), self-assessment records, checklists, teacher feedback, student portfolios (Macazana et al. 2022), peer assessment (Alt and Raichel 2020; Yoong et al. 2023), project-based assessment (Gravett 2024; Gratchev 2023), and analytic rubrics (Andrés, Timón, Morillo, Marín, Tejada, and Ayuso 2024).

Authentic assessment cannot be reduced to a mere repertoire of techniques or instruments. Rather, it represents a broader pedagogical framework in which assessment tasks are designed to be meaningful, situated, and directly connected to real-world contexts. What truly defines this approach is its capacity to engage students in complex, contextualized learning processes that mirror the challenges of professional and civic life (Baquero-Vargas et al. 2023).

This line of research is crucial for both the scientific community and the improvement of educational quality, as recent studies on authentic assessment strategies in higher education offered valuable insights for advancing university pedagogy in line with the demands of the 2030 Agenda. In this regard, authentic assessment is not only a pedagogical model for enhancing learning and educational quality but also a key element for fostering the sustainability of higher education. By strengthening transversal competencies, it contributes directly to SDG 4 and promotes a shift in the assessment culture of educational systems

METHOD

This study aims to identify relevant research on authentic assessment in the field of higher education, with a particular focus on its contribution to improving educational quality. More specifically, the following objectives are proposed:

- To analyze the characteristics of recent publications on authentic assessment in higher education.
- To examine the authentic assessment strategies employed in the identified studies.
- To explore the relationship between authentic assessment practices, educational quality improvement, and SDG 4 in university contexts.

To achieve these objectives, the authors conducted a systematic review following the PRISMA guidelines (Preferred Reporting Items for Systematic Reviews and Meta-Analyses), which offer an up-to-date framework to ensure transparency, completeness, and replicability in the development of systematic reviews (Page et al. 2021).

Search strategy

The authors conducted the literature review in the Web of Science Core Collection and Scopus, using a search equation adapted from Booth, Martyn-St. James, Clowes, and Sutton (2021): (“higher education” OR “university education”) AND (“authentic assessment” OR “performance-based assessment” OR “assessment tools”) AND (“competency-based education” OR “student-centered assessment”) AND (“quality education”). The authors selected search terms that were grounded in the main conceptual components of the study. This approach aimed to focus the review on the university context, incorporate models of authentic and competency-based assessment, identify student-

centered pedagogical practices, and connect with SDG 4 of the 2030 Agenda, thereby ensuring both breadth and focus.

To guarantee methodological transparency, and following the guidelines of Gough, Marshall, Ferris, and Sitch (2023), the authors established the following inclusion criteria: (a) empirical studies or systematic literature reviews on authentic and/or competency-based assessment in higher education; (b) published between 2015 and 2025; (c) written in English or Spanish; (d) peer-reviewed; and (e) explicitly focused on improving educational quality.

The authors limited the review to studies published from 2015 onwards in order to ensure relevance within the contemporary educational context and to align with the adoption of the Sustainable Development Goals (SDGs), particularly SDG 4, which has driven the reorientation of higher education toward quality. While this decision restricts the historical scope, it allows for the inclusion of the most recent research on authentic assessment, a concept now regarded as strategic and aligned with international quality objectives.

The exclusion criteria were: (a) non-empirical documents, such as theoretical essays, opinion articles, editorials, book reviews, and conference abstracts; (b) studies not addressing higher education; (c) duplicate records; and (d) inaccessible full texts (e.g., references not available through institutional subscriptions or open repositories). The authors excluded grey literature in order to prioritize peer-reviewed publications, thereby ensuring methodological rigor and replicability

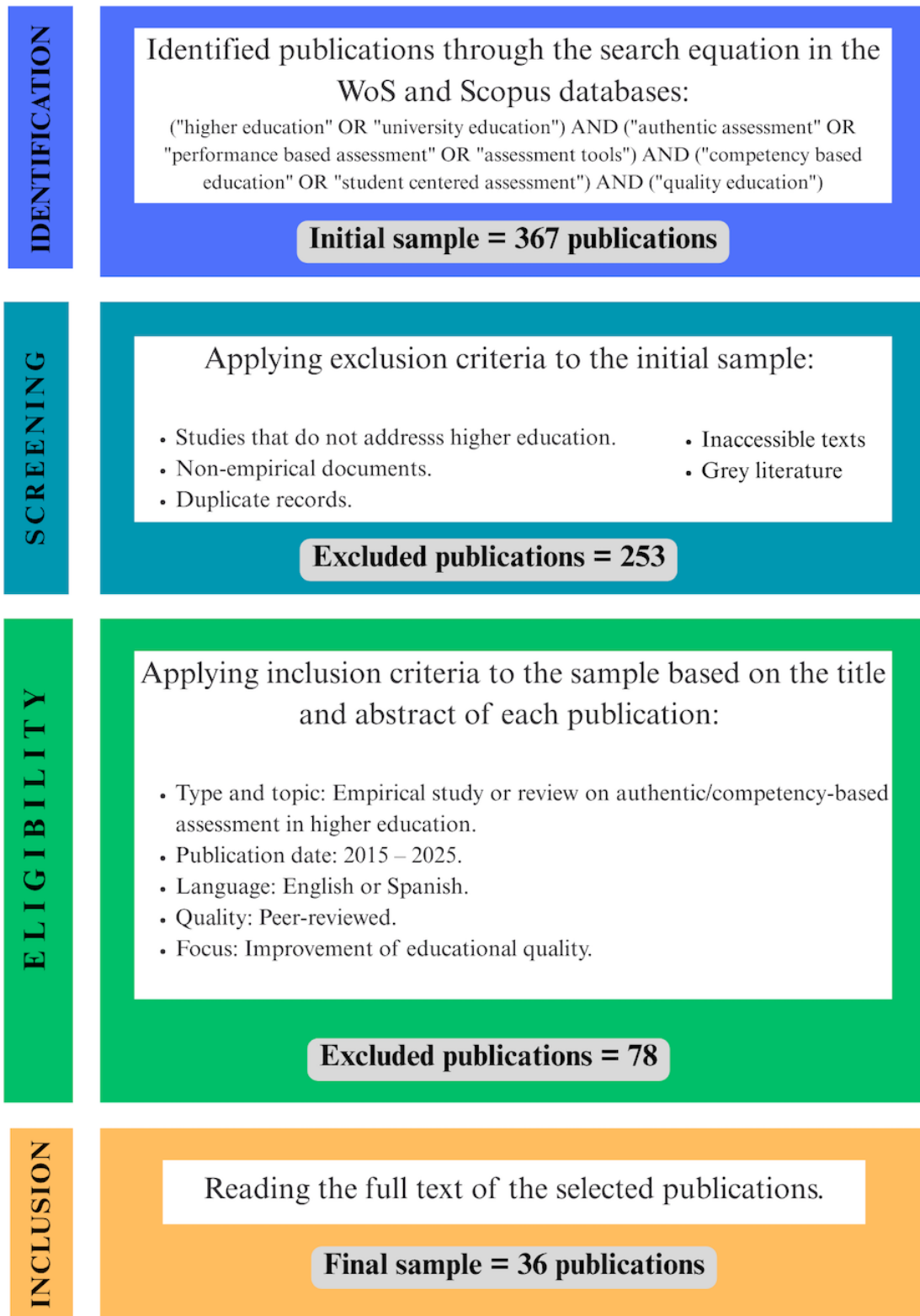
Selection process

The process is illustrated in the PRISMA flow diagram (Figure 1). The authors selected publications for this study in the following phases:

1. Identification: Members of the research team initially retrieved a total of 367 documents, using the defined search strategy.
2. Screening: The research team removed duplicates and applied the inclusion/exclusion criteria via a review of titles and abstracts.
3. Eligibility: Research team members examined the full texts of the remaining studies to confirm their relevance.
4. Inclusion: Ultimately, 36 studies qualified for the final sample. These were peer-reviewed studies that met all established criteria.

Two members of the research team carried out the selection process independently. In cases of disagreement, they consulted a third reviewer. This approach minimized selection bias and enhanced the validity of the findings (Gough et al. 2023).

Figure 1. PRISMA flow diagram



Data analysis

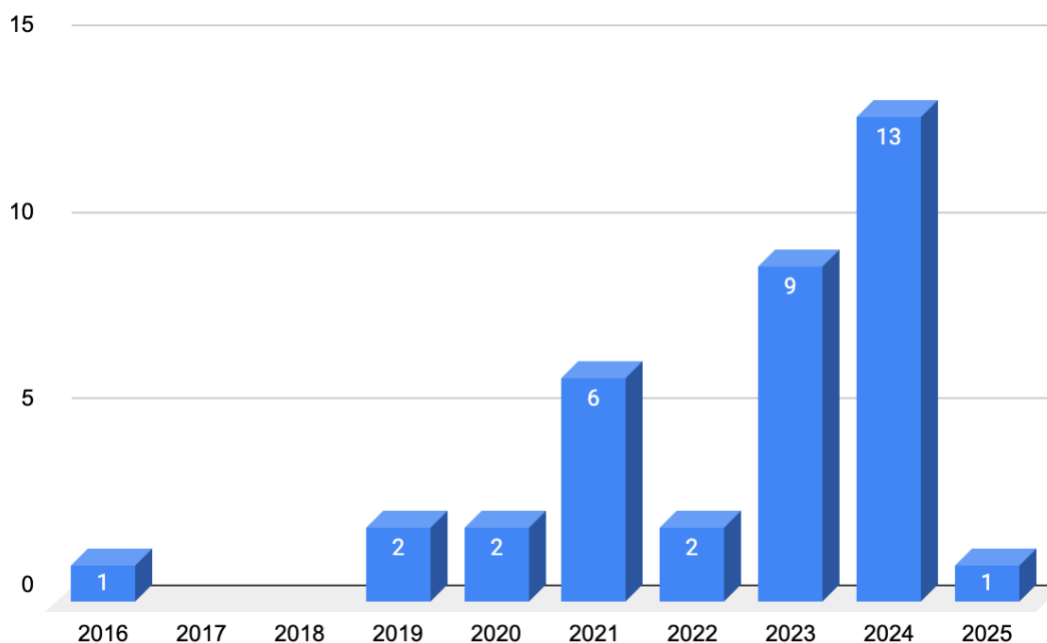
The research team conducted data analysis through a systematic qualitative process. First, the team managed the references using Zotero in order to organize sources and remove duplicates. For data extraction, both members of the research team worked with an ad hoc matrix created in Microsoft Excel. The researchers designed this matrix to systematically collect information from each study, including authorship, year, type of research, objectives, methodology, findings, and contributions to educational quality. To ensure consistency, both researchers independently extracted data from the first five articles and subsequently compared their results. They discussed any discrepancies until reaching a consensus; they then refined the definitions of each criterion in the data matrix before proceeding with the remainder of the sample.

Subsequently, the authors carried out an inductive thematic analysis through a collaborative approach to identify patterns in the literature. They structured this process in two main phases. First, the two lead researchers divided the corpus of articles. Each conducted open coding of their respective subset of data, identifying relevant concepts and patterns directly in a shared working document. Through collaborative discussion and consensus, the research team established, grouped, and structured thematic lines into emerging categories, resulting in a thematic map that the researchers consistently applied to the remainder of the analysis.

RESULTS

Descriptive analysis of the selected publications in relation to specific objective one, the sample of analyzed studies reveals a significant concentration of publications in recent years, with nine articles published in 2023 and 13 in 2024. This trend highlights a growing and sustained interest in the field of authentic assessment (Figure 2). The analysis shows a continuous trajectory of research beginning in 2015, coinciding with the publication of the UN's Sustainable Development Goals. Moreover, the surge in publications in recent years may be linked to the impact of the COVID-19 pandemic and the subsequent digital transformation of higher education, which has driven the search for new teaching and assessment methodologies.

Figure 2. Distribution of publications by year



Included studies came from high-impact academic journals, both within the field of education (e.g., *Teaching in Higher Education*, *Frontiers in Education*, *British Journal of Educational Technology*) and in specialized areas such as health, science, and technology (e.g., *Medical Education Online*, *Journal of Chemical Education*, *International Journal of Environmental Research and Public Health*). Many of these journals are indexed in Q1 and Q2 quartiles, underscoring the relevance of the research.

Regarding methodology, qualitative studies were the most prevalent (n=14), followed by quantitative (n=12), mixed-methods (n=8), and systematic reviews (n=2). The methods used included interviews, content analysis, surveys, and case studies, reflecting a shared commitment to active methodologies, authentic assessment, digital tools, and competency-based, contextualized evaluation practices.

The samples consisted of undergraduate and graduate university students from diverse disciplines—such as medicine, nursing, engineering, education, and psychology—and from face-to-face, hybrid, or fully online learning environments. In terms of authorship, the majority of studies involved collaborative research teams, with only two studies authored individually. Geographically, the United Kingdom (n=11) and the United States (n=10) accounted for the highest number of publications, followed by Switzerland, Spain, and Chile.

An analysis of the most frequent keywords confirms “authentic assessment” as the central theme, alongside other relevant concepts such as “critical thinking,” “higher education,” “vocational education,” “self-assessment,” and “self-regulated learning.” These terms reflect the thematic focus and shared goals of the research studies.

Trends in authentic assessment strategies

To address specific objective two, the literature review identified several key trends in authentic assessment strategies implemented in higher education, as well as the main outcomes reported across studies (Table 1).

The use of rubrics stood out for improving the precision, transparency, and comprehension of assessment criteria. Furthermore, it positively influenced students' self-perception and the effectiveness of the learning environment (Andrés et al. 2024; Mohamed and Almuqayteeb 2023; Trang et al. 2025). Formative and continuous assessment strategies increased student engagement, promoted metacognitive development and evaluative efficiency, and identified areas for improvement in learning (Andriamiseza, Silvestre, Parmentier, and Broisin 2023; Kelgembayeva, Kumarbekuly, Aliya, Alimkhan, Kaldybay, and Kadirov 2024; Mazzoti et al. 2023; Panchbudhe et al. 2024; Yuka et al. 2023). For their part, self-assessment and self-regulation promote greater autonomy, critical reflection, the development of metacognitive skills, and self-criticism in students (Aminu, Hamdan and Russell 2021; Escobar, Escandón-Nagel, Barrera-Herrera and García-Hormazábal 2023; Kelgembayeva et al. 2024; Martín-Del-Pozo and Martín-Sánchez 2022; Murillo-Llorent et al. 2021; Revilla-Cuesta, Hurtado-Alonso, Fontaneca, Skaf, and Ortega-López 2024).

Peer and collaborative assessment contribute to improved engagement and critical judgment, teamwork, clinical competence, and situated learning in real-life contexts. Some studies also demonstrated greater interaction between students and faculty (Alzaabi, Nasaif, Khamis, Otaki, Zary, and Mascarenhas 2021; Aminu et al. 2021; Cano, Halbaut, Martins, and Lluch 2024; Gravett 2024; Østby, Sundby, and Nordeng 2024; Revilla-Cuesta et al. 2024; Williams 2016; Yoong et al. 2023). Project-based assessment, on the other hand, fostered active, ethical, and contextualized learning, although students' perceptions of authenticity may vary (Gravett 2024; McCarthy, Allason, and Stoszowski 2021; Navarro, González, Monsalve, and Contreras 2019; Villarroel, Melipillán, Satana, and Aguirre 2024).

Regarding simulations and assessment in real-life settings, the reviewed studies revealed improvements in students' clinical and diagnostic skills, allowing for more objective assessment by specialists. However, study authors identified difficulties in the integration of assessment and learning in real-life work contexts (Ajjawi, Tai, Boud, and Pitman 2020; Mazotti, Amorelli, Navarro, Nhyderi, Kanter, and Lupi 2023; Østby et al. 2024; Schons, Obersteiner, Reinhold, Fischer, and Reiss 2023; Vlachopoulos and Makri 2024; Villarroel et al. 2024).

Meanwhile, oral and interactive assessment contributed to the development of communication, critical argumentation, and deeper learning (Akib, Muhsin, Hamid, and Irawan 2024; Tan, Howes, Tan, Dancza 2021). Assessment with digital technologies, on the other hand, showed an improvement in feedback, performance, and the design of valid and reliable digital models (Bahula and Kay 2021; Falcão, Adêdes, Jatobá, Fiorentino, Rodrigues, Alves and Ferreira 2023; Liu and Huang 2020; Navarro et al. 2019; Panchbudhe et al. 2024; Viberg, Mutimukwe, Hrastinski, Cerratto-Pargman, and Lilliesköld 2024; Yuka et al. 2023). Finally, inclusive, alternative, and critical assessment modalities promote greater inclusion, stress reduction, and a positive assessment of learning experiences (Dietrich and McWatt 2024; Sanahuja, Moliner, and Benet 2020; Sims, Lundie, Titus, and Govender 2023), while competency-based assessment ensured alignment between the assessment, acquired competencies, and students' professional preparation (Aguilera-Manrique, Gutiérrez-Puertas, Gutiérrez-Puertas, Ortiz-Rodríguez and Márquez-Hernández 2022; Escobar et al. 2023; Kritikharuehart, Vimolsilp and Photipussa 2024; McCarthy et al. 2021).

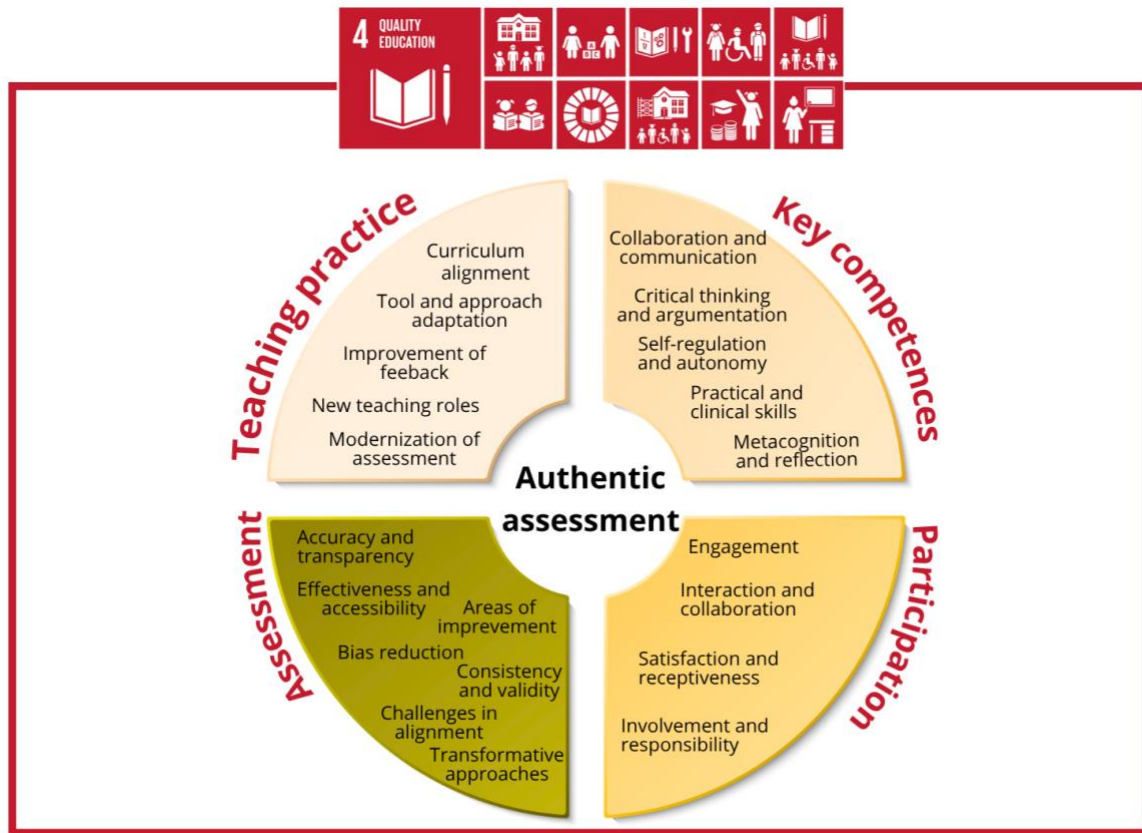
Table 1. Trends in authentic assessment strategies

Authentic assessment strategy	Publications
Rubrics	Andrés et al. (2024); Mohamed et al. (2023); Trang et al. (2025)
Formative and continuous assessment	Andriamiseza et al. (2023); Kelgembayeva et al. (2024); Mazzoti et al. (2023); Panchbudhe et al. (2024); Yuka et al. (2023)
Self-assessment and self-regulation	Aminu et al. (2021); Escobar et al. (2023); Kelgembayeva et al. (2024); Martín-Del-Pozo et al. (2022); Murillo-Llorent et al. (2021); Revilla-Cuesta et al. (2024)
Peer and collaborative assessment	Alzaabi et al. (2021); Aminu et al. (2021); Cano et al. (2024); Gravett (2024); Østby et al. (2024); Revilla-Cuesta et al. (2024); Williams (2016); Yoong et al. (2023)
Project-based assessment	Gravett (2024); McCarthy et al. (2021); Navarro et al. (2019); Villarroel et al. (2024)
Simulations and real scenarios	Ajjawi et al. (2020); Mazotti et al. (2023); Østby et al. (2024); Schons et al. (2023); Villarroel et al. (2024); Vlachopoulos et al. (2024)
Oral and interactive evaluation	Akib et al. (2024); Tan et al. (2021)
Evaluation with digital technologies	Bahula et al. (2021); Falção et al. (2023); Liu et al. (2020); Navarro et al. (2019); Panchbudhe et al. (2024); Viberg et al. (2024); Yuka et al. (2023)
Inclusive, alternative, and critical evaluation	Dietrich et al. (2024); Sanahuja et al. (2020); Sims et al. (2023)
Competency-based assessment	Aguilera-Manrique et al. (2022); Escobar et al. (2023); Kritikharuehart et al. (2024); McCarthy et al. (2021)

Impact of authentic assessment strategies on improving the quality of higher education

In relation to specific objective three, this study reveals that authentic assessment strategies had a significant impact across various areas of higher education. This assessment approach is closely aligned with the core principles of SDG 4, which aims to ensure inclusive, equitable, and quality education and to promote lifelong learning opportunities for all (Figure 3). These methodologies not only strengthen the development of key competencies in students—crucial for lifelong learning and real-world readiness—but also promote greater student engagement and participation. Furthermore, they drive the modernization of pedagogical practices and contribute to improved accuracy, transparency, and consistency in assessment processes.

Figure 3. Impact of authentic assessment strategies



Among the competencies fostered through authentic assessment are critical thinking and argumentation, which were developed through essays, reflective assessment (Akib et al. 2024), peer assessment (Cano et al. 2024), and interactive oral examinations (Tan et al. 2021). Self-regulation and autonomy were also promoted through strategies such as self-assessment, self-regulated learning (Martín-Del-Pozo et al. 2022), and reflective journals (Murillo-Llorent et al. 2021). Practical and clinical skills were strengthened through performance assessments in real-world settings (Villarroel et al. 2024), peer learning (Alzaabi et al. 2021), the use of clinical rubrics (Trang et al. 2025), simulations and scaffolding (Schons et al. 2023), the flipped classroom model (Aguilera-Manrique et al., 2022), and hands-on training (McCarthy et al. 2021).

Metacognitive skills and reflective thinking were developed through e-portfolios (Yuka et al. 2023), reflective journals (Murillo-Llorent et al. 2021), and peer feedback (Yoong et al. 2023). Collaboration and communication were reinforced through project-based and collaborative assessments (Gravett 2024), peer learning (Østby et al. 2024), and oral examinations (Tan et al. 2021). Professional preparedness was also enhanced through competency-based assessment models (Kritkharuehart, Vimolsilp, and Photipussa 2024).

Authentic assessment strategies positively impacted student engagement and participation—key components of the inclusive education promoted by SDG 4. Formative and self-assessment approaches significantly boosted student involvement (Kelgembayeva et al. 2024). Practical learning and peer assessment (Østby et al. 2024) made learning more relevant and engaging. Collaborative assessment (Gravett 2024) and peer learning (Alzaabi et al. 2021) fostered stronger student-teacher interaction and greater collaboration. Students tended to prefer alternative assessment formats over traditional ones, because they reduced stress and enhanced learning experiences (Dietrich et al. 2024).

Video-based feedback was also well received by students (Bahula et al. 2021). In addition, cooperative work and formative assessment enhanced student involvement, responsibility, and learning outcomes (Navarro et al. 2019), while inclusive practices promote the active participation of all students (Sanahuja et al. 2020).

The implementation of authentic assessment drove pedagogical transformation, aligning with the need to substantially increase the supply of qualified educators and improve learning environments. There is a clear need for modernization through the integration of authentic assessment strategies into university assessment policies (Kelgembayeva et al. 2024). In some cases, new teaching roles were proposed, such as clinical assessment specialists, to enhance precision and mitigate bias in evaluations (Mazotti et al. 2023). Learning analytics also demonstrated potential for supporting collaborative work in real-world contexts, suggesting a shift in the teacher's role (Williams 2016). Software platforms improved the quality and speed of feedback (Falcão et al. 2023), while content scaffolding helped identify misconceptions (Schons et al. 2023). In this context, educators must adapt to the use of digital assessment tools (Andriamiseza et al. 2023; Panchbudhe et al. 2024; Viberg et al. 2024), and there is increasing advocacy for a more human-centered and ethically conscious approach to assessment (Gravett 2024). Competency-based models also led to greater alignment between assessed competencies and the academic curriculum (Kritkharuehart et al. 2024).

The effectiveness of authentic assessment strategies was reflected in improvements in the accuracy, transparency, and coherence of evaluation processes, which contributed directly to enhanced educational quality. Rubric-based assessment improved clarity and consistency (Andrés et al. 2024; Mohamed et al. 2023; Trang et al. 2025). The use of Google Forms for formative assessment increased both efficiency and accessibility (Panchbudhe et al. 2024), while data analysis enhanced formative assessment processes (Andriamiseza et al. 2023). Clinical assessment specialists helped reduce bias (Mazotti et al. 2023), and positive impacts were also observed in student grades (Panchbudhe et al. 2024) and overall educational quality (Kelgembayeva et al. 2024). Video feedback has been shown to improve student performance (Bahula et al. 2021), and rubrics increased the consistency of assessments (Andrés et al. 2024), reinforcing the need for more authentic evaluations to address disparities in students' perception of authenticity (Villarroel et al. 2024).

Despite these benefits, challenges remain in aligning authentic assessment with the needs of workplace-integrated learning (Ajjawi et al. 2020). Scholars call for a shift toward more inclusive, flexible, and learner-centered assessment approaches that reflect student diversity (Sims et al. 2023). Lastly, written assessment was useful for identifying key areas of improvement in students' writing processes (Liu et al. 2020).

DISCUSSION AND CONCLUSIONS

This research confirms authentic assessment as an effective strategy for enhancing the quality of higher education while also contributing to the achievement of Sustainable Development Goal 4. Although it is not a new concept (Cubero et al. 2020), authentic assessment represents a foundational pillar in updating the teaching and learning model within the higher education context, offering adaptability to current social and educational demands.

Undoubtedly, it introduces a renewed perspective on the assessment process in higher education, moving away from standardized evaluations that emphasize the final exam as the primary instrument (UNESCO 2022). The range of identified strategies—such as peer assessment, project-based assessment, simulations, formative assessment, rubrics, self-assessment, and digital technologies—demonstrates a broad array of possibilities for tailoring assessment to varying contexts and educational goals. These approaches promote a continuous and reflective process, aligning with the

principles of the European Higher Education Area. Furthermore, scholars have identified additional forms of authentic assessment, such as democratic, optimistic, or fair assessment (Gómez et al. 2017). These perspectives emphasize student inclusion and conceive assessment as a process for learning rather than of learning—focusing on learning from mistakes rather than merely on final outcomes or grades. Above all, this approach aims to avoid turning assessment into a competition among students; it instead promotes it as a means to understand, improve, and reflect on the learning process (Salcedo 2016; UNESCO 2022).

Thus, authentic assessment represents a key strategy for advancing more inclusive, equitable, and quality higher education, in line with the principles of SDG 4. In this study, sustainability is understood in two complementary dimensions. At the curricular and pedagogical level, authentic assessment contributes to the development of lifelong learning competencies, such as critical thinking, self-regulation, reflection, collaboration, and problem-solving (Akib et al. 2024; Gravett 2024; Martín-Del-Pozo et al. 2022). At the institutional level, the systematic adoption of authentic assessment practices promotes the sustainability of the education system itself, fostering a cultural shift in assessment policies and practices beyond isolated innovations. In this sense, authentic assessment becomes a driver of educational sustainability, aiming to align teaching, learning, and assessment with the global challenges outlined in the 2030 Agenda and functioning as a transformative pedagogical tool.

Moreover, studies suggest that authentic assessment positively influences student motivation, engagement, and involvement—particularly when practices such as self-assessment, peer feedback, and the use of digital tools in formative assessment are integrated (Bahula et al. 2021; Kelgembayeva et al. 2024). These elements enrich the learning experience and foster more participatory and equitable educational environments (Sanahuja et al. 2020).

At the institutional level, the findings highlight the need to revise and update academic policies to support the adoption of more authentic assessment models (Gravett 2024; Mazotti et al. 2023). In this context, digitalization and faculty training in the ethical and pedagogical use of emerging technologies are identified as critical pillars for establishing more fair, transparent, and effective assessment processes (Andriamiseza et al. 2023; Panchbudhe et al. 2024).

Nevertheless, significant challenges persist, including the difficulty of implementing authentic assessment in practical contexts. Resistance to replacing traditional models is due to standardized requirements or the convenience traditional models offer to both students and faculty; lack of teacher training; the time required for implementation, which is sometimes constrained by academic schedules; and the need for more inclusive approaches that address student diversity (Ajjawi et al. 2020; McArthur 2023; Ravi et al. 2025; Sims et al. 2023). Overcoming these challenges requires institutional and faculty commitment to continuous improvement, critical reflection, and educational innovation.

In conclusion, authentic assessment not only enhances the quality of the evaluation process but also drives a profound transformation in teaching practices and the assessment culture in higher education. However, the effective implementation of these strategies faces significant challenges. Key factors for their consolidation include targeted teacher training, improvements in technological infrastructure, and the development of educational policies that support these methodologies. In this regard, the reviewed literature consistently highlights that the institutionalization of authentic assessment requires a structural commitment that goes beyond isolated innovations and results in lasting changes to the university assessment culture (Kelgembayeva et al. 2024; Sims et al. 2023).

Among the limitations of this study, it is important to acknowledge the notable omission of a significant research period: the late 1990s and early 2000s, a particularly relevant era for the field of

authentic assessment. However, rather than being an obstacle, this limitation represents a valuable opportunity and opens a promising line for future research. Analyzing this historical trajectory is essential to understanding the evolution, maturity, and future direction of authentic assessment in education.

Another valuable future research direction would be to address some of the main gaps identified in the literature in order to inform subsequent studies. Evidence suggests that there may be a lack of clarity in the definition of authentic assessment, as well as in understanding the key procedures for its implementation in the university context (Fawns et al. 2024; Nieminen et al. 2024). Further investigation into students' perceptions would also be worthwhile, particularly regarding the workload involved, their engagement when assessed in this manner, and the impact on equity (Ravi et al. 2025).

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