

GILE Journal of Skills Development

Unlocking Potential with Multimodal Learning and Assessment: A Discussion of the Barriers and Benefits

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Abstract

In the current dynamic education landscape, equipping students with flexible, critical and creative digital literacy skills is essential. Higher education plays a key role in this endeavour, as changes in the use of digital technology and academic practices have created an increasing need for teachers and students to develop multimodal competencies. To develop these skills, educational institutions should embrace and utilise multimodality in both teaching and assessment. Aside from meeting students' expectations to develop their digital literacy skills, multimodal approaches provide an engaging, interactive and creative experience of education. They also constitute a more inclusive method of learning, as neurodivergent students can access information and demonstrate knowledge in different ways. This article provides a synthesis of research into the barriers and benefits of multimodal learning and assessment. The paper calls for a change in mindset among education stakeholders, advocating for the recognition of learning as multimodal, and the implementation of multimodal assessment.

Keywords: multimodality, assessment, engagement, neurodivergence, inclusivity

1. Multimodality and teaching

Multimodality can be defined as the use of multiple methods of communication with one common purpose or expression. Kress (2011) conceptualised this synthesis as constituted from diverse 'threads', such as image, speech, gesture or writing. One early and important notion is that images, audio, graphs etc. should not be considered as simply enhancements of a text; they multiply meaning, standing with text in a mutually constitutive relationship (Lemke, 1998). Recognising this requires a distinct change in mindset for higher education, which remains dominated in many disciplines by written and spoken forms of meaning-making in instruction, assessment and research.

Regarding the origins and pedagogical applications, multimodality has grown considerably as a field of academic enquiry from its inception in relation to science education (Roth, 1996), professional scientific print publications (Lemke, 1998) and discourse analysis (Kress & van Leeuwen, 1996). Research has expanded widely, with recent book publications focussing on diverse subject areas such as English language learning (Diamantopoulou & Ørevik, 2022), higher education (Lacković & Olteanu, 2023), digital environments (Sindoni et al., 2019) and

organisation studies (Ravelli et al., 2023). In relation to English language teaching, studies have examined the use of multimodal approaches in teaching English for academic, specific and general purposes (Anis & Khan, 2023; Archer, 2022; Ganapati & Seetharam, 2016; Kustini et al., 2019;). Large-scale research has also been conducted, recruiting participants from university-wide student populations (Saini & Baba, 2024; Sankey et al., 2010; Smith & Storrs, 2023). Overall, these studies have found distinct benefits in multimodal teaching, conveying consistent findings in relation to engagement and motivation, explored in more detail below.

2. Assessment

Transforming or replacing assessments is a challenging endeavour. Diamantopoulou and Ørevik (2022) have pointed out that it is not sufficient to implement multimodal methods of instruction and text creation; institutions also need to recognise multimodal learning through formal assessment structures. Research also shows there is a mismatch between attention to students' multimodal text production and a view of assessment that neglects multimodal work (Tan et al., 2020). Other barriers to implementation have been suggested by Cope and Kalantzis (2017), who argue that subjects tend to be compartmentalised, relying on ready-made formats such as published textbooks and exams based on memorisation. Institutions and individual teachers can be resistant to developing and implementing new forms of assessment, as this takes work and time. There is the need to develop novel criteria, ensure constructive alignment of teaching materials with assessments and often to seek approval through formal quality assurance procedures.

To facilitate the transition to multimodal assessment, institutions can start with small-scale pilot programs (Ørevik, 2022; White, 2022) or provide professional development workshops (British Council, 2024) to equip teachers with the skills necessary to design and evaluate multimodal tasks. The Common Framework of Reference for Intercultural Digital Literacies (CFRIDiL) is a useful reference point, as it includes examples of 'real-life' assessment tasks (Sindoni et al., 2019). Along with teacher and peer-assessment forms, it offers an accessible guide to reliable and tested assessment criteria.

Despite the substantial challenges, studies show that multimodal assessments have been implemented in various disciplines and with positive feedback from students. The multimodal assessment genres studied include e-portfolios (Pourdana & Tavassoli, 2022), websites (White, 2022), webpages, videos and blogs (Sindoni et al., 2019), and posters (Ørevik, 2022).

3. Engagement and agency

While the implementation of multimodal assessments presents distinct challenges, there are considerable benefits that such approaches bring to student engagement and motivation. By embracing multimodality, educators can create more inclusive learning environments that cater to a diverse range of needs and learning preferences. Plastina (2013) and Ganapati and Seetharam (2016) found that multimodal teaching activities in English for specific purposes classes had a beneficial effect on student motivation and engagement. In another study, students' perceptions of a multimodal programme revealed motivation, enjoyment and engagement as key themes (Kustini et al., 2018). In fact, even when the use of multimodal methods has not shown a discernible improvement in learning performance, students commented positively on multimodal methods and perceived benefits in comprehension and retention (Sankey et al., 2010). Australian undergraduates in this study also commented that they found multimodal materials more interesting and enjoyable to use.

Agency is another important aspect of multimodal pedagogy. When students have the opportunity to create multimodal texts, they are both negotiating and democratising the curriculum, enabling a focus on personalised meaning-making through designing and shaping their communication into distinctive forms (Canale, 2022). Teachers can also experience greater agency, through the creation, synthesis and curation of multimodal teaching materials. Archer (2022) proposes that involving both students and teachers in multimodal text creation can instigate a shift in power relations from a top-down orientation to negotiation and discussion. The notion of multimodal literacy does not necessarily create more equitable learning environments, however. Watts-Taff (2022) argues that students and teachers must adopt a multimodal literacy mindset, establishing the conditions for a greater connection between teachers, students and texts.

4. Neurodivergence and inclusivity

The term ‘neurodivergent’ describes individuals whose cognitive functioning deviates from the average or socially defined norm (Ellis et al., 2023). To support neurodivergent students, presenting information through various formats is essential. This is because a multimodal approach expands opportunities for learning, as students can grasp concepts through their preferred learning channel (Edyburn, 2001; Ellis, 2024). Inclusive education has increasingly been linked to the principles of Universal Design for Learning (UDL), which promote flexibility in learning and teaching by focusing on multiple means of representation, expression and engagement (UCLES, 2020). The guidelines recommend that a multimodal approach reduces barriers to communication for learners with disabilities, values forms of communication that have historically been undervalued, and expands opportunities for every learner to develop a broader range of expression in a media-rich environment (UCLES, 2020).

Learning environments should also include different options for students to demonstrate their understanding and competence. This is a key shortcoming in current institutions' provisions particularly with assessment. The original developers of UDL, the Centre for Applied Special Technology (2024), outline several drawbacks of traditional learning and assessment: limiting teaching methods and variety of content; hindering learners' ability to demonstrate understanding; failing to prepare learners for their future; and most importantly, restricting the types of learners who can achieve success. Although not specifically focused on neurodivergent students, my research (White, 2022) into multimodal assessment with university students revealed, unexpectedly, that students who were less successful in conventional assessments, such as essays and reports, performed better in a multimodal assessment. They also commented positively on the opportunity to demonstrate their knowledge and understanding through various media. This indicates that, as frequently noted in UDL literature, multimodal learning and assessment enhance the overall quality and effectiveness of education for all students, not just those with specific learning differences.

5. Conclusion

This article has explored the development and effectiveness of multimodal learning and assessment. It has provided evidence to support the relevance of multimodality for developing learners' digital literacy and its positive perception by students as an engaging and motivating benefit for neurodivergent students, as it enables them to access information and demonstrate understanding in different ways. Despite the growth of multimodal research and teaching practices, assessments are often overlooked, with institutions relying on traditional ready-made

formats such as memorisation tests. The complex issue of assessing multimodal texts produced by learners is a key area for attention in future research and academic practice. This article advocates for an urgent change in higher education, emphasising the need to recognise learning as multimodal and to develop multimodal assessments using available tools such as the CFRIDiL. Implementing multimodal learning and assessments across the academy will enhance evaluation practices, provide a more inclusive representation of individual abilities and ensure young adults are better prepared for a multifaceted digital landscape. As higher education continues to evolve, recognising learning as inherently multimodal is no longer an option, but a necessity for fostering truly inclusive and effective education.

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Declaration Statements

Conflict of Interest

The author reports no conflict of interest.

Funding

The author received no financial support for this article's research, authorship, and/or publication.

Ethics Statement

No dataset is associated with this article.

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