

What's new in UDL?

Annotated bibliography: selected articles published in 2023-2025

Sara de la Fuente-González, David Menéndez Álvarez-Hevia, Alejandro Rodríguez-Martín (2025). Universal Design for Learning. A systematic review of its role in Teacher Education. [Reformas y políticas educativas a gran escala](#), vol 20, num 1, <https://doi.org/10.17163/alt.v20n1.2025.09>

Universal Design for Learning (UDL) is a developing educational approach that aims to improve learning for all students without having to make significant modifications to the curriculum. This concept has been progressively incorporated into pedagogical debates and education regulations. Along this line, some publications have illustrated the efficacy of UDL in terms of access, participation, and commitment to learning processes, especially in the case of students with disabilities. This paper provides a systematic review of relevant academic literature that enhances our understanding of how UDL was integrated into teacher education processes by identifying three different forms of conceptualizing UDL. For this purpose, 88 articles were included that addressed the incorporation of Universal Design for Learning into initial and in-service teacher education processes. The results point to a dominant approach grounded on a problematic association of UDL with students with disabilities or learning difficulties. This narrow view restricts how teachers apply inclusive practices in classrooms, calling for a broader and more comprehensive interpretation of UDL. The study contributes to fostering discussions about Universal Design for Learning (UDL) as a whole, including the dominant perspective projected in how it is understood and applied in teacher education and classrooms. It envisions new, more inclusive scenarios for the development of educational approaches that support all learners, fostering a truly inclusive learning environment.

Moriña, A., Carballo, R., & Doménech, A. (2025). Transforming higher education: a systematic review of faculty training in UDL and its benefits. *Teaching in Higher Education*. <https://doi.org/10.1080/13562517.2025.2465994>

This paper provides a systematic review of Universal Design for Learning (UDL) in the university context, focusing on two main themes: faculty training and the benefits of UDL for students. A total of 20 studies involving 5,656 participants (363 faculty members and 5,293 students) were identified, addressing how the implementation of UDL and its impact on students can be enhanced through appropriate faculty training. The findings suggest that specific training in UDL increases teaching competence and promotes inclusive and effective pedagogical practices. Additionally, the effectiveness of UDL in students' academic experiences was analyzed, demonstrating that UDL-based pedagogical approaches improve learning, accessibility, and participation for all

students, including those with disabilities. This study highlights the importance of integrating UDL into faculty training and its positive impact on the university learning environment.

Duncan, J., Butler, K., Leonard, C., Foggett, J., Page, A., & Roche, L. (2025). Uncovering Challenges in Universal Design for Learning in Higher Education. *Australasian Journal of Special and Inclusive Education*, 1–17.
doi:10.1017/jsi.2025.10003

In current Australian practice, higher education institutions provide access to reasonable adjustments for disabled students to support equitable access to learning. Although these practices can support access to learning, there are many barriers for students, including the requirement to disclose their disability, an administrative and advocacy burden, and variable implementation outcomes. This study shows how Universal Design for Learning may reduce the individual student demand. It provides learning environments that are, by design, accessible, free of barriers, and appropriately challenging for all learners. In the present study, we conducted an anonymous online survey regarding the UDL practices used by academic teaching staff at a regional Australian university. In total, 113 respondents completed the 20-question survey, which included closed-response and open-text questions. The survey explored academic awareness and implementation of UDL in their teaching practice, and open-text questions were used to elicit their perspectives on UDL. Among other findings in the closed-response questions, there was a large discrepancy in the consistent implementation of UDL in practice, in which 50% of academics reportedly did not intentionally incorporate it. Results from the open-text questions revealed four key challenges academics encountered in implementing UDL: resources and time constraints, knowledge and awareness, institutional barriers, and implementation challenges.

Durgungoz, F.C., & Durgungoz, A. (2025). “Interactive lessons are great, but too much is too much”: Hearing out neurodivergent students, Universal Design for Learning and the case for integrating more anonymous technology in higher education. *Higher Education*.

<https://doi.org/10.1007/s10734-024-01389-6>

This study investigates the role of neurodivergent (ND) students' voices in shaping educational experiences and engagement in higher education (HE). There is a significant gap in the literature on incorporating ND students' voices in curriculum design in HE. By integrating Universal Design for Learning (UDL) elements, this study aimed to enhance cognitive and emotional engagement among ND and neurotypical (NT)

students. This study utilised a combination of quantitative and qualitative research methods. Quantitative data were collected over 8 weeks, transitioning from traditional lecture-based teaching to UDL-enhanced sessions. Our findings reveal that UDL strategies benefit ND and NT students, improving their cognitive and emotional engagement. Qualitative results highlighted that traditional lectures often lacked engagement, while interactive activities were generally preferred. However, too much interactivity, particularly in group discussions, was sometimes overwhelming. ND students preferred anonymous, technology-driven interactions and practical tasks, allowing them to participate more effectively in learning. This study underlines the importance of incorporating ND student voices in curriculum design to create supportive and empowering educational environments for all students. By addressing the unique needs of ND students, this research contributes to the ongoing discourse on student voice in HE, emphasising the need for flexible and inclusive teaching practices that offer diverse learning preferences.

McMullin, R., & Skaggs, D. (2024). An overview of UDL theory and scholarship in higher education. In D. Skaggs & R. M. McMullin (Eds.), *Universal design for learning in academic libraries: Theory into practice* (pp.1-17). Chicago, IL: Association of College and Research Libraries. Retrieved from https://digitalcommons.wcupa.edu/lib_facpub/33

For educators and researchers who are new to universal design for learning (UDL), this chapter is a good starting point. This chapter is part of the book on UDL in academic libraries, however, it provides a brief historical overview of UDL scholarship with a focus on higher education in general. The authors introduce foundational concepts of UDL, connecting them to accessibility and inclusivity in academic environments. They review various universal design models with relevance to higher education, including Universal Design for Instruction, Universal Instructional Design, and UDL highlighting their principles and guidelines. The chapter also reviews scholarship trends, emphasizing UDL's applications for enhancing student engagement and addressing diverse learning needs. The text critiques the limited empirical evidence on UDL's impact on student outcomes calling for more research to address this gap. This chapter is useful if one is seeking to understand UDL's theoretical framework and practical implementation in postsecondary settings. It has a comprehensive bibliography.

Boysen, G. A. (2024). A critical analysis of the research evidence behind CAST's universal design for learning guidelines. *Policy Futures in Education*, 22(7), 1219-1238. <https://doi.org/10.1177/14782103241255428>

This article critically examines the research cited by Center for Applied Special Technology (CAST) to support its UDL guidelines, namely studies linked to UDL's core principle of engagement, representation, and expression and their connections to learner choice, educational outcomes, and brain function. The analysis reveals that most studies fail to substantiate CAST's claims regarding the grounding in neuroscience and the effectiveness of UDL frameworks. This review "suggests that the cited evidence behind CAST's UDL guidelines is weak and both basic research and implementation research are needed to establish the framework's validity and effectiveness." This study is a call for more foundational and implementation research in UDL in diverse settings. While this review provides important insights and contributes to the critical discourse about UDL, it is important to note the limitations as described by the author including the focus on the bibliography provided by CAST, exclusion of nonempirical articles that may provide weak but important evidence, a lack of quality assessment of the reviewed studies, and reliance on a single expert's judgement. Additionally, while examination of and generation of evidence to validate the UDL framework and support its implementation is of paramount importance for its future development, the main goal of UDL should not be neglected (providing equal educational opportunities for diverse students of diverse backgrounds and academic abilities).

Ristad, T., Østvik, J., Horghagen, S., Kvam, L., & Witsø, A. E. (2024). A multi-stakeholder perspective on inclusion in higher education: Ruling on fragile ground. *International Journal of Educational Research Open*, 6, 100311. doi:<https://doi.org/10.1016/j.ijedro.2023.100311>

This study examines the inclusion of students with disabilities in higher education in Norway from a multi-stakeholder perspective, using data collected through workshops involving students, lecturers, support personnel, and university administrators. The authors employ constructivist grounded theory to analyze decision-making processes regarding accommodations and universal design. Findings highlight gaps in professional knowledge, barriers to collaboration, and the role of institutional enforcement in fostering inclusive educational environments. The study underscores the need for clearer responsibilities, increased training, and systemic support to bridge the existing disparities in accessibility and inclusion. The research contributes valuable insights for policy development and institutional practice, advancing the conversation on equitable education for students with disabilities.

Almeqdad, Q. I., Alodat, A. M., Alquraan, M. F., Mohaidat, M. A., & Al-Makhzoomy, A. K. (2023). The effectiveness of universal design for learning: A

systematic review of the literature and meta-analysis. *Cogent Education*, 10(1), 2218191. doi.org/10.1080/2331186X.2023.2218191

This systematic review and meta-analysis evaluate the effectiveness of UDL principles in K-12 and higher educational settings, analyzing 13 empirical studies conducted between 2015 and 2021. The findings indicate that UDL strategies improve learning outcomes, particularly when applied through professional development or classroom interventions. The study highlights heterogeneity across research designs and effect sizes, with results demonstrating greater impact in specific subject areas and K-12 settings. Findings of this study corroborated findings from the earlier reviews highlighting those interventions that used all three UDL principles (multiple means of engagement, representation, and action and expression) had better educational results than those using one or two principles.

This article provides evidence for understanding the effectiveness of UDL, but emphasizes the need for further empirical research with more diverse and rigorous methodologies. The limitations of this review are the lack of quality appraisal of the included studies, potential publication bias as included studies reported positive outcomes and the selection of English and Arabic-language studies only potentially introducing cultural and language bias (although UDL literature is dominated by North American, particularly US research).

Kirsch, B. A., & Luo, T. (2023). [Universal Design for Learning Implementation in Higher Education: Survey of Faculty and Instructional Designers](#). *The Journal of Applied Instructional Design*, 12(4), 17-32.

This study investigates Universal Design for Learning (UDL) implementation in higher education by surveying faculty and instructional designers to examine how they learn about, train others in, and apply UDL principles. Using a survey adapted from Westine et al. (2019), the authors analyze perceptions of UDL training, barriers to implementation, and motivations behind adopting UDL strategies. Findings indicate that instructional designers play a critical role in supporting faculty, but time constraints and a lack of institutional mandates hinder wider adoption. The study contributes to ongoing discussions about inclusive pedagogy by highlighting the importance of professional development and institutional support in scaling UDL practices.