JUTLP
Journal of University Teaching & Learning Practice

Universal Design for Learning in Tertiary Education: Australian Professionals' Perspectives on Using UDL in Practice

Dr Erin Leif[a], Associate Professor, Dr Amanda Gigliotti[b], Senior Lecturer, & Darlene McLennan[c]
[a] Monash University, Australia; [b] University of Wollongong, Australia, [c] University of Tasmania, Australia

Abstract

This study explored how tertiary education professionals in Australia understand and apply Universal Design for Learning (UDL) in their practice, the barriers they face, and what more institutions can do to support its implementation. Semi-structured interviews were conducted with 11 professionals across various roles and institutions. Findings revealed that, while educators are using UDL principles to enhance engagement, accessibility, and assessment flexibility, their efforts are often ad hoc and unsupported by formal structures. Key barriers included limited time, confusion about how to apply UDL in specific contexts, and a lack of institutional mandates. Participants strongly advocated for embedding UDL into institutional policies, performance expectations, and strategic plans. Practical, discipline-specific professional learning and access to real-world examples were seen as critical for supporting implementation. The importance of local communities of practice and mindset shifts, positioning UDL as quality teaching for all students, were also discussed. These findings underscore the need for tertiary institutions to adopt a systemic and sustained approach to UDL, moving beyond compliance to embed inclusive design into the fabric of teaching and learning.

Editors

Section: Academic Development
Senior Editor: A/Prof Bekk Middleton
Associate Editor: A/Prof Martin Andrew

Publication

Submission: 5 July 2025
Revised: 4 November 2025
Accepted: 17 November 2025
Online First: 17 November 2025

Practitioner Notes

1. Australian tertiary educator professionals are already using UDL principles in practice, but need more practical, discipline-specific resources to scale impact.
2. Time constraints and unclear guidance limit UDL uptake, but simplified, contextual tools and resources could support the use of UDL in practice.
3. Embedding UDL into institutional policy and performance frameworks is needed to support sustainable, system-wide change.
4. Differentiated professional learning and peer networks help build educator confidence and shared commitment to UDL.
5. Framing UDL as a proactive learning design framework mindset and avoids perceptions of it being an add-on or compliance task.

Keywords

Universal Design for Learning, inclusive education, higher education, tertiary education, academic development

Citation:

Leif, E., Gigliotti, A., & McLennan, D. (2024). Universal design for learning in tertiary education: Australian professionals' perspective of UDL in practice. *Journal of University Teaching and Learning Practice, 22*(7). https://doi.org/10.53761/kdwv5p62

Introduction

Australia's contemporary tertiary education landscape is increasingly shaped by a diverse student body. Today's university and vocational education cohorts include students with disability, students from culturally and linguistically diverse (CALD) backgrounds, learners living in regional and rural areas, and those from historically marginalised communities, including Aboriginal and Torres Strait Islander peoples. This growing diversity reflects broader societal efforts to widen participation in higher education and ensure that all individuals have the opportunity to pursue further study and realise their potential. However, with this expansion comes a renewed imperative: tertiary institutions must actively design and deliver inclusive learning environments that recognise and respond to the varied strengths, needs, and aspirations of their students.

Inclusive education in the tertiary sector is not simply about increasing access - it is about ensuring equitable participation, meaningful engagement, and success for all students. Legislative mandates such as the *Disability Discrimination Act* (1992) and the *Disability Standards for Education* (2005), alongside national frameworks such as the *Australian Universities Accord* (Australian Government, 2024) and *Australia's Disability Strategy 2012-2031*, Policy Priorities 3 and 4 (Department of Social Services, 2024) reinforce the obligation of tertiary education providers to meet the needs of diverse learners.

Universal Design for Learning

As tertiary institutions increasingly strive to meet the diverse needs of their student populations while upholding commitments to equity and inclusion, adopting pedagogical frameworks that promote flexible and accessible learning is essential. One such approach that has gained growing recognition for its ability to address the wide-ranging barriers students face is Universal Design for Learning (UDL). Unlike a single teaching method, UDL is best understood as a flexible framework aimed at breaking down obstacles to student participation and learning (Kilpatrick et al., 2021; Seok et al., 2018). It encourages educators to design inclusive learning environments that offer multiple pathways for all students to access, engage with, and demonstrate their learning.

Central to UDL are three core instructional design principles developed by the Centre for Applied Special Technology (CAST) (Sewell, Kennett & Pugh, 2022). The first principle- multiple ways of engagement - focuses on creating curricula that motivate, engage, and challenge learners. Recognising that no single approach can engage every student, this principle emphasises optimising choice, autonomy, relevance, and interaction, while also addressing emotions and motivation to foster meaningful learning experiences (Kumar et al., 2014; CAST, 2024).

The second principle - multiple ways of representation - centres on how students perceive and make meaning from information (Sewell, Kennett & Pugh, 2022). This involves presenting content through diverse modes such as auditory, visual, and tactile formats, supporting knowledge construction, offering alternative perspectives, and using varied media to clarify concepts (CAST, 2024). Finally, the third principle- multiple ways of action and expression - provides learners with flexible options to demonstrate their understanding. This principle respects the diverse ways students interact with materials, communicate their ideas, and develop plans to maximise their learning (CAST, 2024). To operationalise these principles, the UDL framework includes nine

guidelines and thirty-six considerations (previously *checkpoints*; CAST 2018), adaptable across educational contexts - from schooling to post-secondary settings - and learning environments, whether face-to-face or online.

Applications of Universal Design for Learning in Tertiary Education

UDL was originally developed for use in primary and secondary schools in the United States. However, over time, the UDL framework has gained growing popularity internationally within the tertiary education sector. Research on UDL in higher education has explored its application in courses, focusing on both its effectiveness and the perceived impact on student learning (Kumar & Wideman, 2014; Rao & Tanner, 2011; Seymour, 2024). Studies have also investigated challenges related to successfully implementing UDL to foster inclusive and accessible education, highlighting factors such as instructor attitudes and the availability of UDL training and professional development (Black et al. 2014; Hakel & Magin, 2024; Schelly, Davies, & Spooner, 2011).

Research findings suggest that UDL can positively influence student experiences in higher education. For example, Seymour (2024) found that students appreciated UDL for enhancing engagement and participation, providing connection and interaction with peers and offering learning support and resources. Moreover, Rao and Tanner (2011) and [authors withheld for peer review] reported that students valued varied content formats, the inclusion of choice, and weekly synchronous sessions encouraging interaction and deeper exploration of material. Additionally, Morina et al (2025) emphasised UDL's potential for being effective in improving student participation and retention.

Despite these benefits, several barriers to UDL implementation in higher education have been identified. Kennette and Wilson (2019) identified that students perceived UDL as more effective than some instructors. Black et al. (2014) also noted that some instructors held negative attitudes towards accommodating students with disabilities. Furthermore, Morina et al (2025) stressed the importance of UDL training to enhance instructors' capacity for inclusive learning and Hills et al. (2022) highlighted that a lack of institutional support and limited time and resources pose significant challenges to embedding UDL principles fully into tertiary courses.

Research Gap and Current Study

While the potential effectiveness of UDL has been reported in empirical research, reflections on its implementation, including the perspectives of practitioners' adopting UDL in Australian tertiary institutions remains largely underexplored. In response, we explored the experiences of Australian tertiary education professionals to understand the challenges and opportunities associated with implementing UDL in the tertiary education sector. Specifically, we aimed to identify how these professionals were integrating UDL principles into their practice, the barriers they faced in its implementation, and the support mechanisms that enhanced their efforts. The research was guided by three central questions: (1) How are tertiary education professionals in Australia using UDL in their professional practice? (2) What challenges do they encounter when attempting to apply UDL in their practice? and (3) What further support can tertiary education institutions provide to assist these professionals in effectively utilising UDL principles in their practice?

Method

We utilised a phenomenological research design to explore the lived experiences of tertiary education professionals regarding the challenges and opportunities for implementing UDL in the tertiary education sector, and to co-design actionable recommendations. Ethical approval for this study was received from the Human Research Ethics Committee at [withheld for peer review] (Project ID [withheld for peer review]).

Participants and Recruitment

Participants were tertiary education professionals, including faculty members, instructional designers, academic support staff, and administrators from various tertiary institutions in Australia (both university and technical and vocational [TAFE] institutions). A purposive sampling strategy was employed to select individuals who have direct experience with UDL principles and practices. Specifically, we recruited participants who had completed the Australian Disability Clearinghouse on Education and Training (ADCET) Disability Awareness free eLearning program [authors withheld for peer review] on the principles and practices of UDL, and who were participating in a national community of practice on UDL for tertiary education professionals convened by ADCET and TAFE South Australia. We invited the conveners of the community of practice to email members of the community of practice to invite their participation in the study. The email contained a summary of the study's purpose and aims, contact details of the authors, and a link to access the study explanatory statement and consent form on Qualtrics®. After providing consent, each participant was contacted by the first author via email to schedule an interview.

Data Collection

Data were collected through in-depth, semi-structured interviews designed to capture information about participants' experiences with UDL. Each participant was invited to participate in a one-on-one interview conducted by the first author. The interview guide included open-ended questions to explore participants' understanding of UDL, their experiences with implementing UDL, perceived barriers and facilitators, and their vision for effective UDL practices. Interviews lasted between 45 to 60 minutes and were audio-recorded with participants' consent to ensure accurate transcription and analysis. Example questions included: "Can you describe your experience with implementing UDL principles in your teaching or instructional design?" "What challenges have you encountered when trying to apply UDL in your context?" and "What opportunities do you see for enhancing UDL implementation in tertiary education?"

Data Analysis

Our analysis was informed by our experiences and training in inclusive education and UDL in the tertiary education sector. Data were analysed using the process of inductive thematic analysis (Braun & Clarke, 2022). Inductive thematic analysis was selected because it is a systematic yet flexible method for identifying, analysing, and reporting patterns (themes) within qualitative data. First, all interviews were transcribed verbatim to capture the participants' exact words and expressions. Second, the first and second author read and re-read the transcripts to become familiar with the content. Third, the authors developed initial codes based on both semantic and latent analysis of the data.

Identifying semantic meaning involved analysing the explicit or surface meanings of the data by identifying key words and phrases. For example, if a participant said, "I find using UDL principles

in my teaching very challenging due to a lack of training," a semantic analysis would focus on the explicit challenge of "lack of training" as a code. Identifying latent meaning involved a deeper level of analysis that sought to identify underlying ideas, assumptions, and conceptualisations, based on words, phrases, and sentences. This type of analysis went beyond what was explicitly stated to explore the underlying meanings of participant responses.

After initial coding, the authors reviewed the codes to identify themes. This process involved grouping similar codes together and examining the relationships between them to form coherent themes that accurately represented the data. Themes were then reviewed and refined through a process of iterative analysis, which included checking the themes against the original data to ensure they were accurate and a comprehensive representation of the participants' experiences and perspectives. Once the themes were established, they were defined and named. This step involved defining each theme and ensuring that each theme captured a distinct aspect of the data. The themes were then used to develop a narrative that provided a detailed and nuanced understanding of the participants' experiences.

Finally, the themes were reported in the findings, with illustrative quotes from the participants to provide evidence and context. This step ensured that the participants' voices were represented in the analysis and that the findings were grounded in the data. The result was a rich and detailed account of the participants' experiences, which provided insights into the research question and contributed to the existing body of knowledge on the topic.

Reliability

Two independent researchers thematically analysed the data to enhance the reliability of the findings. First, each researcher individually read and re-read the transcripts to immerse themselves in the data and develop a comprehensive understanding. They independently generated initial codes through both semantic and latent analysis, identifying explicit and underlying meanings in the data. After this initial coding phase, the two researchers met to share their findings. During this meeting, they compared the codes they had developed independently, discussing any similarities and differences. This collaborative discussion allowed them to cross-check each other's work, ensuring that the codes were less influenced by individual biases and that a broad range of perspectives was considered.

Results

Table 1 provides an overview of the participant demographics. Eleven tertiary education professionals from five Australian states participated. Nine participants worked in university settings and two participants worked in TAFE settings. Participants held a variety of roles. Three participants were employed as lecturers and designed and delivered academic units to post-secondary students. Seven participants were employed in professional roles including learning designer and academic skills advisor. One participant was employed part time as a learning designer and part time as a lecturer.

Table 1

Participant Demographic Information

Pseudonym	Role	Setting	State
Danielle	Learning Designer	University	WA
Jackie	Digital Specialist	University	VIC
Arielle	Academic Skills Advisor	University	VIC
Josh	Learning Designer	University	QLD
Isabelle	Educational Technologist	University	WA
Piper	Learning Designer and Lecturer	TAFE	VIC
Sami	Educational Designer	University	NSW
Annie	Academic Skills Advisor	University	VIC
Molly	Lecturer	TAFE	QLD
Chelsea	Lecturer	University	NSW
Eva	Lecturer	University	QLD

In what follows, themes are described and supplemented with illustrative embedded quotes from participants. Edits to participant quotes for clarity are denoted with square brackets [ ].

How are tertiary education professionals in Australia using UDL in their professional practice?

Table 2 provides a summary of the themes and key findings related to this research question. Participants discussed implementing UDL in a variety of ways, often by providing multiple means of representation, action and expression, and engagement. These strategies reflect a commitment to creating more inclusive and accessible learning environments that cater to diverse student needs. A key approach to UDL implementation involves offering content in multiple formats to enhance accessibility. Many participants described how they used videos with transcripts or captions, Auslan interpretations, and visual aids alongside text-based resources to ensure that students could engage with material in ways that best suited their needs. One participant highlighted their efforts to provide alternative ways of delivering content: "I have alternate ways of giving information. I find a lot of little videos that have transcripts, reasonable

captions, or Auslan. [I] have resources that are accessible [and] work better with screen readers and things like that."

Table 2

Summary of Main Findings

Research Question	Theme	Key Findings
How are tertiary education professionals in Australia using UDL in their professional practice?	Multiple Means of Representation	Use of videos with transcripts, Auslan, visual aids, alt text, structured PDFs, and QR codes to enhance accessibility.
	Multiple Means of Action and Expression	Use of alternative forms of assessment and independent adaptations of group tasks for online students.
	Engagement and Student Voice	Promoting student input, use of breakout room strategies in recordings, and the “plus one” approach for incremental improvements.
	Accessible Digital Resources	Efforts included using proper heading structures, accessible PDFs, alt text, and QR codes to link to additional online content.
	Institutional Supports	Development of internal guidelines and checklists, integration into learning design, and use as an audit tool.
	Professional Development and Communities of Practice	UDL promoted through tutor training, UDL consults, and communities of practice for shared learning. Educational designers and advocates drive UDL adoption within institutions.
What challenges do tertiary education professionals face when using UDL in their professional practice?	Time and Prioritisation	UDL often deprioritised due to heavy workloads and competing demands despite widespread support for its value.
	Understanding and Overwhelm	The large number of UDL guidelines and considerations is intimidating; educators are unsure where to start.
	Assessment Design	Rigid policies and approval processes made modifying assessments to align with UDL difficult.
	Institutional and Policy Support	Lack of top-down policies limited consistent uptake; UDL seen as optional rather than expected.
	Accessibility vs. Inclusion	Some conflated UDL with accessibility compliance, missing broader goals of inclusive education.
What more can tertiary education institutions do to support professionals to use UDL in their professional practice?	Policy Integration and Strategic Alignment	Institutions should embed UDL into formal policies, strategic plans, and performance metrics.
	Understanding Student Cohorts	Educators should be supported and expected to engage with students' diverse learning needs.
	Targeted Professional Development (PD)	UDL training should be practical, tiered by experience level, and integrated into broader PD offerings (e.g., learning design, digital pedagogy).

Research Question	Theme	Key Findings
	Practical Tools and Resources	Institutions should develop and disseminate clear, user-friendly resources (e.g., annotated templates, checklists).
	Showcasing Practice and Student Voice	Use of case studies and student feedback to demonstrate UDL in action and inspire adoption.
	Encouraging Incremental Change	Promote the “plus one” approach to lower implementation barriers and encourage gradual adoption.
	Local Leadership and Collaboration	Establish and support local communities of practice and cross-departmental collaboration.

Ensuring digital resources are accessible was another frequently discussed theme. Proper heading structures, accessible PDFs, and the inclusion of alt text for images were emphasised as critical steps in making learning materials more inclusive. As one participant noted: "Use the heading set up properly so that it’s a weighted tab, and not PDFs that aren’t accessible. These are tools already on offer. Have a look at accessibility on PowerPoint, make sure you’ve got alt text to describe diagrams."

Some participants also reported using QR codes to link physical materials to online resources, ensuring that students could easily access additional information. One participant explained: "I’ve been adding QR codes so that students, when they get the PDF slides, they can scan the code to go back and watch something, if they want to take it in." Another important strategy was modifying online recordings to be more inclusive. One participant described how they actively engaged online students during in-class activities: "If I have students go into a breakout group for group work, I explain th[e] group activity, everyone moves into the breakout room and then in th[e] main room, I take that moment to then address those watching online."

Participants also described ways they provided students with various means to express their knowledge and demonstrate their learning. A recurring theme was the exploration of alternative forms of assessment submission to accommodate different learning preferences and needs. One participant reflected on the challenges and opportunities of implementing alternative assessments: "The alternative forms of submission is going to be a big, tricky one for us."

For online learners, group work activities were often adapted into independent tasks to ensure equitable access. One participant explained: "I convert the group work activity into an independent activity and tell them how they can complete this independently." Creating engaging and meaningful learning experiences was another critical aspect of UDL implementation. Participants highlighted the importance of embedding UDL into conversations about continuous improvement, making these discussions a normal part of academic culture. One participant stated: "That whole idea of making conversations about continuous improvement normal and common and not threatening."

Participants also embraced a collaborative and flexible approach within prescribed teaching structures, encouraging students to have input into their learning journeys. One participant articulated this approach: "My teaching style becomes, ‘This is what we have to do but let's talk

about the different ways we can get to that. Let's work through different activities towards that end point. Let's come up with your ideas, everyone input.'"

A practical strategy employed by some participants was the "plus one" approach, which encourages incremental improvements in accessibility and inclusivity. A participant highlighted the value of this method: "Plus one is a language that you can use with educational colleagues, with our front-of-counter staff and with our director. It's about what can we do in our realm of influence that's going to be an improvement every day."

Beyond individual teaching strategies, participants described broader institutional efforts to embed UDL in tertiary education. Several participants developed internal checklists and guidelines adapted from UDL principles to ensure accessibility across various learning materials. One participant explained: "We develop an initial draft checklist for our work, drawing from the UDL principles, such as when we create videos, word documents and PDFs, and things that we need to be careful of." Promoting UDL through professional development and training was also a key strategy. Another participant described their efforts to do this: "I've been promoting it when I've been asked to speak at sessional tutors' training days. I promot[e] the heck out of that."

Many institutions established Communities of Practice (CoPs) to facilitate shared learning and collaboration around UDL. One participant highlighted the significance of these communities: "At one university I teach, [the] community of practice has been a really great safe space for people to start their inclusion journeys." Some participants also incorporated UDL principles into learning design processes, even when they were not explicitly labelled as UDL. Another participant reflected: "UDL is, for me, top of mind when I'm giving advice and suggestions for what people can do." Another significant finding was the role of UDL champions in tertiary education settings, who advocate for and embed inclusive practices within their institutions. One participant shared how their role as an educational designer enabled them to push UDL initiatives forward: "The UDL chat continues. Part of our role as educational designers is we do short consults with academics, and people can actually book a UDL consult if that's what they're looking for."

Finally, UDL was used as a framework for evaluating and improving learning experiences. One participant described how she used UDL as an audit tool: "That framework's been really useful in not only planning what I do now and making it more inclusive but then auditing what I do."

What challenges do tertiary education professionals face when using UDL in their professional practice?

The implementation of UDL in tertiary education settings in Australia is hindered by several key challenges. Table 2 provides a summary of the themes. Based on interview data, these challenges span a range of structural, cultural, and practical issues that impact educators' ability to effectively integrate UDL principles into their teaching. One of the most significant reported barriers is the lack of time and prioritisation. Academics frequently reported being time-poor, with heavy workloads that leave little room for additional pedagogical innovations. While many acknowledged the value of UDL, its implementation was often deprioritised in favour of immediate teaching and research demands. As one participant noted: "Academics are time poor. Most academics that I speak to see the value of it, and they think it's a great idea, but they just don't have the time to do it." Another participant reinforced this sentiment, explaining that competing deadlines make it difficult to invest in UDL, even when there is an interest in doing so: "Look, we don't have the time. We have to get this out. We can't do that.'"

A related issue is the lack of understanding and practical application of UDL principles. Many educators struggle to grasp how UDL translates into tangible teaching strategies, and some perceive it as overly theoretical or complex. One participant described how this uncertainty discourages engagement: “It will scare people away, right? They think, ‘Oh my god, I’m going to have to learn a whole new theory, a whole new discipline, and it’s complicated, and it doesn’t fit in with my worldview.” Others noted that even after engaging with available UDL resources, they still found it difficult to assess whether their teaching materials aligned with UDL principles. This lack of clarity has led to misconceptions, with some dismissing UDL as merely a rebranding of older pedagogical concepts, such as technology-enhanced learning.

The perception of UDL as overwhelming further deters implementation. Educators described the framework’s extensive guidelines and checkpoints as intimidating, making it difficult to know where to start. One participant explained: “When you look at all the components of it, it seems a bit insurmountable and overwhelming.” Another highlighted the challenge of taking initial steps, stating: “Even knowing the first steps to take... there are a lot of checkpoints, so which one do you start with? If people wanted to focus in on one, I think it could be a bit overwhelming.”

Assessment design presents another major challenge. Participants indicated that aligning assessments with UDL principles is particularly difficult due to rigid institutional policies and standardised assessment requirements. As one participant explained: “Sometimes the way we are assessing students at the institution level doesn’t meet UDL principles.” Another noted that making changes to assessments within university structures is a slow and bureaucratic process: “University system challenges make it hard to use UDL [for] assessment. We have to be explicit and prescriptive with how we design assessments and show [them] in the student handbook. The process of getting them changed takes a year.”

Systemic support and institutional policies also play a crucial role in either enabling or inhibiting UDL implementation. Some participants emphasised that widespread adoption of UDL requires top-down support and policy integration. As one participant stated: “There needs to be institutional-level policy that says we follow UDL-specific guidelines that have been adapted or contextualised to the university. Without such policies, UDL remains an optional practice rather than an institutional expectation, leading to inconsistent uptake across faculties.”

Another issue is the conflation of UDL with accessibility or its separation from broader inclusive education efforts. Some educators focus narrowly on accessibility compliance rather than the broader principles of UDL, which aim to support all learners. One participant noted: “All they want to know is how to get alternative formats... they just want to know the accessibility checker.” This narrow view of UDL limits its transformative potential and prevents educators from fully embracing its principles as a framework for inclusive teaching.

The lack of training and professional development further exacerbates the challenges of UDL implementation. Many educators, particularly sessional staff, have not received formal training on UDL and therefore lack the knowledge and skills needed to apply it effectively. One participant compared the situation to other mandatory training programs, asking: “Why can’t we have disability awareness training every two years? Why don’t we have those modules, including UDL, that are now available if the university would buy that program?” Another participant highlighted the challenge of engaging educators who do not have a background in pedagogy: “If there isn’t a really big drive for this... then where are they going to get that from? They’re not going to be as

engaged in an education space as people who may have come through the Department of Education."

Resistance to change and reliance on traditional teaching practices also impede the adoption of UDL. Some educators view their established methods as effective and are reluctant to modify their approach. As one participant described: "There's a lot of assumptions about, 'Well, this is how we've always done it, so that's the best way to do it.'" Others resist UDL due to concerns that it compromises academic rigour, with one educator noting: "Some teachers still feel that they're cheating the students if they do it; the students should be able to take these notes. But why? Why not give them the PowerPoint? It doesn't make sense."

Finally, difficulties in measuring the impact of UDL contribute to its slow adoption. Without clear metrics demonstrating its effectiveness, UDL can be a hard sell to administrators and educators who require evidence of its benefits. One participant expressed frustration at the lack of awareness among early-career academics, stating: "Newly minted PhDs – they've never taught – and now they're going to be coordinating a unit, and they've been basically told, 'Here's your unit, off you go.'" Another participant compared UDL to well-designed assessments, arguing that while UDL requires significant effort upfront, its long-term benefits are difficult to quantify: "It's the same with UDL: you've got to put all that work in upfront, but you can't really measure the benefit. It's difficult. It's a difficult sell."

What more can tertiary education institutions do to support professionals to use UDL in their professional practice?

A key recommendation for embedding UDL in tertiary education is the formal integration of UDL principles into institutional policies and guidelines. One participant emphasised the necessity of institutional mandates, stating: "Anything we produce, any learning, resources, or experiences—whether it's in the classroom, an assessment experience —there needs to be an institutional-level policy that says we need to follow UDL-specific guidelines that have been adapted or contextualised to the university." This approach parallels existing policies such as copyright regulations, ensuring that accessibility and inclusive teaching practices become a fundamental expectation rather than an optional consideration. Additionally, participants highlighted that tertiary education professionals must familiarise themselves with their student cohorts, including their accessibility needs. One participant suggested that: "It should be a requirement for academics to actively engage with their students' diverse backgrounds, potentially through a structured checklist."

Aligning performance metrics with UDL implementation was also identified as a crucial step. Another participant noted: "Some performance metrics for academics should actually look for illustrations of how they were using UDL in their teaching as part of performance expectations." Another participant highlighted the importance of embedding UDL within strategic planning processes, recommending that universities: "Map it to university strategic plans and visions" to ensure sustainable implementation.

Participants consistently emphasised the need for accessible and practical UDL professional development programs for staff. One participant proposed: "A training program for experienced educators, and a training program for people who are new to actual teaching" to ensure both experienced and novice educators have the knowledge and skills to implement UDL. Another participant stressed the importance of practical training, stating: "We need [professional

development] on just really simple, practical applications—if you design this Word document or these slides, what would UDL look like in this instance?"

Embedding UDL principles into broader teaching and learning professional development was also seen as a key strategy. One participant noted: "In our training, we always incorporate learning design... we promote the ADCET course." Similarly, another participant recommended integrating UDL within digital pedagogy courses, stating: "Not specifically doing a UDL course but doing an online digital pedagogy course and then having UDL as just part of what naturally makes an effective experience." Symposiums and forums were identified as useful platforms to promote UDL awareness, with participants noting their potential effectiveness in raising awareness among educators. The development of practical and easily understandable resources was highlighted as essential for translating UDL principles into practice. As one participant stated: "There's a need for real practical, understandable resources that can help with the translation of UDL theory into application." Another participant reinforced this point, advocating for: "An annotated version of a Word document that would satisfy the UDL guidelines."

Additionally, participants supported the creation of tailored checklists to guide different roles in implementing UDL. Several participants suggested that checklists would help individuals understand UDL in their specific contexts, with one participant noting that they had already drafted one for their own work. Another recommendation centred around providing concrete examples and case studies of UDL in practice. One participant described profiling academics who had successfully implemented UDL: "We try to do a little profile on the academics that I've been working with and the changes they've made." Another participant also underscored the importance of student perspectives, stating that hearing directly from students about their experiences with UDL could be a powerful motivator for educators.

Participants stressed that UDL should be framed as a broad framework for inclusive design rather than a complex theory. One participant discussed positioning UDL as a "blueprint" for effective teaching, rather than an additional burden. This participant also highlighted UDL as a mindset that many educators may already possess. Furthermore, participants emphasised the importance of reinforcing that UDL benefits all students, not just those with disabilities. One participant encapsulated this view, stating: "UDL isn't a special ed[ucation] thing... it's just an ed[ucation] thing." A second participant echoed this sentiment, noting that their main takeaway from UDL training was that: "Universal Design for Learning is for everybody."

Several participants pointed out common misconceptions, suggesting that UDL should be framed in a way that supports all learners, including international students. To enhance understanding, one participant proposed shifting terminology, stating a preference for "university design for learning" rather than UDL. Another participant emphasised the value of embedding the language of universal design into institutional policies, while a third participant suggested moving beyond terms like "accessibility" and "inclusivity" in isolation, advocating instead for a holistic approach to UDL. Additionally, the "plus one" approach—making small, incremental improvements—was seen as an effective way to encourage gradual adoption. One participant emphasised: "Even a little bit is better than nothing," while another participant agreed that the "plus one" concept provides a practical entry point for educators.

Finally, fostering local communities of practice was identified as a valuable strategy for promoting UDL. One participant described efforts to create a "UDL ideal community of practice," while

another participant advocated for a "ground-up community of practice around inclusion." Participants also highlighted the importance of interdepartmental collaboration. One participant expressed hope that "via Uni Access, the units that they are seeing students coming through, that maybe they could talk to the academics in those units as well" to spread awareness of UDL. Another participant reinforced this perspective, emphasising the importance of “inclusion teams” in UDL implementation.

Discussion

This study explored how tertiary education professionals in Australia are using UDL in their teaching practice, the barriers they encounter, and what more institutions can do to support sustainable and effective implementation. The findings provide important insights into the current state of UDL use in higher education and offer practical implications for institutional policy, professional development, and systemic change. This study adds depth to the current understanding of how personal experiences and institutional frameworks influence UDL implementation, providing a nuanced perspective not extensively covered in previous research.

UDL in Practice: Grassroots Innovation and Professional Commitment

The data collected as part of this study revealed that tertiary education professionals are already applying UDL principles in creative and responsive ways. Examples spanned all three UDL principles, including the use of multiple means of representation (e.g., accessible media and materials), multiple means of engagement (e.g., student choice and motivation strategies), and multiple means of action and expression (e.g., flexible assessment practices). Educators demonstrated a clear commitment to inclusive practice, with some going as far as to independently develop UDL-aligned checklists or repurpose group assessments to better accommodate student needs. These examples reflect what Behling and Tobin (2018) have described as the “grassroots” adoption of UDL in higher education, where early adopters act as champions in the absence of formalised institutional structures.

Persistent Barriers Highlight the Need for Systemic Support

Despite these positive examples, participants described significant barriers to consistent and widespread implementation of UDL. These include time constraints, a lack of institutional mandates, confusion about how to practically apply UDL guidelines, and the perception that UDL is relevant only to students with disability. These findings are consistent with previous research highlighting that without targeted support and system-level endorsement, UDL remains an aspirational rather than actionable framework (Roberts et al., 2011; Morina et al., 2015). Participants repeatedly emphasised the overwhelming nature of UDL’s guidelines and considerations (previously checkpoints; CAST, 2018), particularly when presented without contextualised guidance or discipline-specific examples. Some participants also reported frustration with institutional processes that make it difficult to modify assessment structures, even when more inclusive options are available. The limited understanding of UDL’s broad applicability further perpetuates the false dichotomy between inclusive design and “mainstream” teaching, reducing UDL to a compliance exercise or “add-on” rather than positioning it as core pedagogy.

Institutional Levers for Change

Participants offered clear and actionable recommendations for what tertiary institutions can do to support more widespread and sustainable UDL implementation. A key strategy involves

embedding UDL into institutional policies, performance frameworks, and strategic plans. Drawing parallels with how copyright compliance is institutionalised, one participant advocated for UDL to become an expected part of teaching and learning design, an approach supported by literature on implementation science (Fixsen et al., 2019), which suggests that sustained change requires alignment across policy, practice, and performance monitoring. Another critical lever is professional development. Participants called for differentiated training pathways tailored to both novice and experienced educators, as well as more practical, example-based learning opportunities. The preference for simple, discipline-relevant resources (e.g., annotated documents, tailored checklists) echoes recent scholarship urging institutions to move beyond theoretical introductions to UDL and focus on implementation supports that are accessible and immediately usable (Rao, 2021).

Participants also emphasised the importance of embedding UDL within broader pedagogical initiatives, such as digital learning and course design, rather than siloing it as a discrete or specialist focus. This aligns with arguments by Burgstahler (2015) and others that UDL is most impactful when it is framed as a universal approach to quality learning rather than a special education tool. Similarly, promoting UDL through student voice and educator case studies was seen as a powerful mechanism for increasing relevance and buy-in.

Shifting Mindsets and Building Communities

A notable theme across interviews was the importance of shifting mindsets, both at the individual and institutional level. Several participants challenged the language of “accessibility” and “inclusivity” as being insufficient when divorced from broader design principles, instead advocating for a holistic framing of UDL as “just good teaching.” The “plus one” strategy - encouraging educators to make at least one improvement to their practice - is particularly promising as a low-barrier entry point that fosters momentum and avoids overwhelm. Finally, the role of local communities of practice was highlighted as a critical support for ongoing implementation. Participants described how these networks enabled shared learning, problem-solving, and a sense of collective commitment to inclusion. When paired with top-down support from institutional leadership and cross-departmental collaboration, these grassroots efforts can help shift UDL from being the work of a few committed individuals to a shared institutional priority.

Limitations and Future Directions

The study’s reliance on a phenomenological design limits the generalisability of the findings to broader populations outside the Australian tertiary education context. Additionally, the purposive sampling may have introduced bias, focusing on participants already engaged with UDL principles. Future research could expand this investigation by including a broader range of institutions and higher education contexts, and longitudinal studies could explore the long-term impacts of UDL implementation on student outcomes and faculty experiences.

Conclusion

This study underscores the value of UDL in promoting inclusive, student-centred teaching in tertiary education. However, the findings reveal the need for a more strategic and systemic approach to implementation. Institutions must move beyond ad hoc training and individual advocacy to embed UDL within policy, practice, and culture. This includes developing practical resources, aligning performance expectations with inclusive teaching practices, supporting local

champions, and framing UDL as integral to effective pedagogy for all students. Future research should examine the impact of these institutional strategies on student outcomes and explore how UDL can be integrated into pre-service teacher education and academic development programs at scale.

Acknowledgements

[Author 1] and [Author 3] were part of a volunteer working group that developed the free ADCET Disability Awareness eLearning Program in UDL. They have not received any income from this eLearning program. The authors disclose that they have not received any funding for this manuscript beyond resourcing for academic time at their respective university. The authors used ChatGPT to review and improve the clarity of ideas presented in selected sections of this manuscript. All outputs generated by ChatGPT were carefully reviewed and edited by the author to ensure alignment with their original intent, voice, and scholarly standards, as per Crawford et al. (2023). The authors confirm that they have met the ethical standards expected as per Purvis & Crawford (2024).

The authors list the following CRediT contributions: [Author 1] conceptualised the research, developed the research methodology, and collected the original data. [Author 1] and [Author 2] conducted data analysis and contributed to the writing and revising of the original draft of this manuscript. [Author 3] contributed to the development of the research methodology and the revising of the original draft of the manuscript.

References

[authors withheld for peer review]

[authors withheld for peer review]

Australian Government Department of Education. (2024). *Australian Universities Accord Final Report Document.* Retrieved from https://www.education.gov.au/australian-universities-accord/resources/final-report

Behling, K. T., & Tobin, T. J. (2018). *Reach everyone, teach everyone: Universal design for learning in higher education*. West Virginia University Press.

Black, R. D., Weinberg, L. A., & Brodwin, M. G. (2014). Universal design for instruction and learning: A pilot study of faculty instructional methods and attitudes related to students with disabilities in higher education. *Exceptionality Education International*, *24*(1), 1–17. https://doi.org/10.5206/eei.v24i1.7710

Boothe, K. A., Lohmann, M. J., Donnell, K. A., & Dean Hall, D. (2018). Applying the principles of Universal Design for Learning (UDL) in the college classroom. *The Journal of Special Education Apprenticeship, 7*(3). https://doi.org/10.58729/2167-3454.1076

Braun, V., & Clarke, V. (2022). Conceptual and design thinking for thematic analysis. *Qualitative Psychology*, *9*(1), 3-26. https://psycnet.apa.org/doi/10.1037/qup0000196

Burgstahler, S., & Russo-Gleicher, R. J. (2015). Applying universal design to address the needs of postsecondary students on the autism spectrum. *Journal of Postsecondary Education and Disability*, *28*(2), 199-212. http://www.ahead.org/publications/jped

CAST (2024). *Universal Design for Learning Guidelines version 3.0.* Retrieved from https://udlguidelines.cast.org

CAST (2018). *Universal Design for Learning Guidelines version 2.2*. Retrieved from http://udlguidelines.cast.org

Commonwealth of Australia. (1992). *Disability Discrimination 1992* (Cth). https://www.legislation.gov.au/Series/C2004A04426

Commonwealth of Australia. (2005). *Disability Standards for Education 2005* under the *Disability Discrimination Act 1992* (Cth). https://www.legislation.gov.au/Series/F2005L00767

Crawford, J., Cowling, M., Ashton-Hay, S., Kelder, J. A., Middleton, R., & Wilson, G. S. (2023). Artificial intelligence and authorship editor policy: ChatGPT, Bard Bing AI, and beyond. *Journal of University Teaching and Learning Practice, 20*(5). https://doi.org/10.53761/1.20.5.01

Department of Social Services. (2024). *Australia's Disability Strategy 2021–2031*. Commonwealth of Australia. https://www.disabilitygateway.gov.au/document/3106

Fixsen, D. L., Van Dyke, M. K., & Blase, K. A. (2019). *Science and implementation*. Chapel Hill, NC: Active Implementation Research Network. www.activeimplementation.org/resources

Hakel, K., & Magin, M. (2024). The impact of professional development training on faculty's integration of universal design for learning in daily teaching practices. *International Journal of Inclusive Education*, 1–16. https://doi.org/10.1080/13603116.2024.2430527

Hills, M., Overend, A., & Hildebrandt, S. (2022). Faculty perspectives on UDL: Exploring bridges and barriers for broader adoption in higher education. *The Canadian Journal for the Scholarship of Teaching and Learning*, *13*(1), 1–18. https://doi.org/10.5206/cjsotlrcacea.2022.1.13588

Kennette, L. N., & Wilson, N. A. (2019). Universal Design for Learning (UDL): Student and faculty perceptions. *Journal of Effective Teaching in Higher Education*, *2*(1), 1–26. https://doi.org/10.36021/jethe.v2i1.17

Kilpatrick, J. R., Ehrlich, S., & Bartlett, M. (2021). Learning from COVID-19: Universal Design for Learning implementation prior to and during a pandemic. *The Journal of Applied Instructional Design, 10*(1). https://doi.org/10.51869/101jkmbse

Kumar, K. L. & Wideman, M. (2014). Accessible by design: Applying UDL principles in a first year undergraduate course. *Canadian Journal of Higher Education*, 44(1), 125-147. https://eric.ed.gov/?id=EJ1028772

Morina, A., Carballo, R., & Domenech, A. (2025). Transforming higher education: a systematic review of faculty training in UDL and its benefits. *Teaching in Higher Education*, 1–18. https://doi.org/10.1080/13562517.2025.2465994

Purvis, A.J. & Crawford, J. (2024). Ethical Standards in Educational Research and Publication. *Journal of University Teaching and Learning Practice, 21*(9). https://doi.org/10.53761/hqnqr710

Rao, K. (2021). Inclusive instructional design: Applying UDL to online learning. *The Journal of Applied Instructional Design*, *10*(1), 1-10.

Rao, K., & Tanners, A. (2011). Curb cuts in cyberspace: Universal instructional design for online courses. *Journal of Postsecondary Education and Disability (Print)*, *24*(3), 211–229. http://www.ahead.org/publications/jped

Roberts, K. D., Park, H. J., Brown, S., & Cook, B. (2011). Universal design for instruction in postsecondary education: A systematic review of empirically based articles. *Journal of Postsecondary Education and Disability*, *24*(1), 5-15. http://www.ahead.org/publications/jped

Schelly, C. L., Davies, P. L., & Spooner, C. L. (2011). Student perceptions of faculty implementation of Universal Design for Learning. *Journal of Post Secondary Education and Disability*, 24(1), 17-30. https://eric.ed.gov/?id=EJ941729

Seymour, M. (2024). Enhancing the online student experience through the application of Universal Design for Learning (UDL) to research methods learning and teaching. *Education and Information Technologies*, *29*(3), 2767–2785. https://doi.org/10.1007/s10639-023-11948-6