

# Embracing Diversity: Navigating Universal Design for Learning in Higher Education (HE) for First-Year Undergraduate Students.

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## Abstract.

This paper presents reflections from a fledgling higher education (HE) lecturer navigating the integration of Universal Design for Learning (UDL) principles into the pedagogical landscape for first-year undergraduate Education and Training students. With a keen focus on enhancing inclusivity, the lecturer engages in a critical examination of teaching practices, striving to create an environment catering to diverse learning needs. The implementation of UDL, a framework promoting flexible instructional methods, emerges as a central theme, as this educator explores innovative approaches to address the varied academic backgrounds and diverse learning needs of undergraduate first-year students.

Through self-reflection and experiential insights, this paper unfolds the lecturer's evolving understanding of UDL and its application in higher education contexts. Challenges encountered, successes achieved, and lessons learned from integral parts of the narrative, shedding light on the dynamic process of incorporating inclusive practices. As the lecturer grapples with adapting traditional teaching methodologies, the paper captures the transformative journey toward fostering an inclusive learning environment that not only accommodates but also celebrates the diversity inherent in the first-year undergraduate student population. Ultimately, this exploration contributes valuable perspectives to the ongoing discourse on implementing UDL in HE for the benefit of both educators and students.

**Keywords:** Diverse Learning Needs; First-year Undergraduate Students; Higher Education (HE); Inclusivity; Reflections; Universal Design for Learning (UDL).

# 1. Introduction.

In the ever-evolving landscape of higher education (HE), the UNESCO (2020) report “*Inclusion and Education*” assesses the progress towards Sustainable Development Goal 4 (SDG4) in the pursuit of ensuring inclusive and quality education for all and promoting lifelong learning. This report underscores the critical task of addressing the needs of those excluded from education due to background or ability, as outlined in the United Nations 2030 Agenda. However, educators face the challenge of designing instruction that engages and challenges the diverse student population. The primary purpose of Universal Design for Learning (UDL) is to create learning experiences that reach every student and while every student has the potential to learn, not all students learn in the same way. People vary in how they engage with learning, how they make meaning of what they learn, and how they express their learning. In the UDL framework, this is referred to as learner variability (Evmenova, 2018). This paper embarks on a reflective journey, delving into the experiences of a fledgling higher education (HE) lecturer as she grapples with the integration of UDL principles into the instructional fabric for first-year undergraduate Education and Training students. UDL (Meyer, Rose & Gordon, 2014) draws from cognitive neuroscience and educational development research, it serves as an educational framework that minimising barriers to learning and maximising accessibility and inclusivity for a diverse spectrum of students, all while upholding academic standards without compromise.

The importance of inclusivity in higher education, teaching and learning drives this reflection, encapsulated by Hockings (2010: p.1) who states:

*“Inclusive learning and teaching in higher education refers to the ways in which pedagogy, curricula and assessment are designed and delivered to engage students in learning that is meaningful, relevant, and accessible to all. It embraces a view of the individual and individual difference as the source of diversity that can enrich the lives and learning of others.”*

Educators worldwide seek to create innovative strategies to accommodate the diverse academic backgrounds and diverse learning needs inherent in their student populations (Dolmage, 2017; Fornauf & Erickson, 2020). The introduction of UDL, a comprehensive framework championing flexible instructional method, signifies a pivotal shift in pedagogical paradigms (Scanlon & Doyle, 2022). It serves as the cornerstone for fostering an environment

where each student, regardless of individual differences, can access and engage with educational content effectively. Through the lens of the fledgling lecturer narrative, this paper unveils a journey of critical self-examination and adaptation of teaching practices. The lecturer's commitment to creating a responsive learning environment becomes evident, setting the stage for an exploration of challenges, successes, and lessons learned. Against the backdrop of a dynamic educational landscape, this paper contributes a nuanced understanding of the evolving application of UDL in HE contexts. By explaining the transformative process, it not only captures the lecturer's experiences but also offers insights resonant with educators and stakeholders involved in the discourse on inclusive practices. As we embark on this reflection, the overarching goal is to provide valuable perspectives that transcend individual narratives and enhance the collective aspiration towards a more inclusive and enriching educational experience for first-year undergraduate students in higher education.

## 2. Self-Reflection and Experiential Insights.

The journey of integrating Universal Design for Learning (UDL) into my teaching practices for first-year undergraduate students has been profoundly introspective and experiential. One facet of this self-examination entails reconsidering my role as an educator and the type of educator I aspire to be. Am I merely a conveyor of information, indifferent to students' engagement, needs, learning abilities, and understanding? Or am I committed to the additional workload, time, continuous professional development (CPD), reflective practice, and self-doubt it entails, striving to be adaptable, flexible, and self-critical to create an inclusive learning environment for my students? The answer? *"I am committed."* Adopting UDL principles required me to shift towards being a facilitator of learning, deeply invested in students' engagement, needs, learning abilities, and understanding. This transformation was not just philosophical but also practical. I started by redesigning my lesson plans to include multiple means of representation, expression, and engagement.

For example, I integrated visual aids, interactive activities, and varied assessment methods such as oral presentations, written assignments, and multimedia projects. This shift required a significant commitment to additional workload and time, often involving late evenings spent modifying materials and creating new resources. CPD became a cornerstone of this journey, and I participated in workshops and online courses focusing on UDL and inclusive teaching

strategies, which helped me reflect on and refine my practices regularly. Reflection entails an engaged process of self-observation aimed at attaining a deeper comprehension of experiences and stepping back or participating in distinct contemplation (Lynch, 2023). Adapting to UDL principles (Flood & Banks, 2021) prompted me to reconsider my traditional instructional methods and question ingrained assumptions about how students learn. This introspection, though challenging, has been a catalyst for personal and professional growth, fostering a heightened awareness of the diverse learning needs within my classrooms.

Experiential insights have unfolded as I witnessed the tangible impact of UDL on individual students. Observing the varied ways in which students engage with course content has illuminated the effectiveness of flexible instructional methods and recognising it is not just about accommodating differences but appreciating the richness that diverse perspectives bring to the learning environment. For instance, by providing lecture notes in various formats (text, audio, and visual), I observed that students with different learning preferences could engage more effectively with the content. One student with dyslexia, who previously struggled with written text, showed marked improvement in understanding and retention when given access to audio reading equipment of lecture notes and readings. Additionally, implementing flexible deadlines and varied assessment formats allowed students to demonstrate their understanding in ways that played to their strengths. One particular example was a student who excelled in creating a poster project and presented it through video instead of a traditional essay, which not only displayed his knowledge but also his creativity and technical skills. These experiences underscored the effectiveness of flexible instructional methods and the importance of appreciating the richness that diverse perspectives bring to the learning environment. They have also contributed to the reshaping my understanding of inclusivity, emphasising the importance of creating a space where every student, regardless of background or diverse learning need, feels seen, heard, and empowered. Through self-reflection and experiential insights gained from integrating UDL with first-year undergraduates, transformative shifts have occurred. These reflections deepen my understanding of inclusive pedagogical practices and cultivate an appreciation for the diverse educational journeys of students. This ongoing process of self-discovery and experiential learning continually shapes my approach as an educator committed to nurturing an inclusive and dynamic learning environment within my HE classroom.

### 3. Navigating Challenges.

Navigating the complexities of UDL implementation has offered experiential lessons in adaptability. Keeping in mind UDL is all about offering choice, by implementing minor adjustments using Tom Tobin's and Kirstin Behling's (2018) UDL "*plus one*" mindset approach can yield significant benefits for both students and teachers alike. Each class becomes a dynamic, living experiment, requiring continuous adjustments to cater to the evolving needs of the diverse student cohort. The iterative nature of this process has reinforced the notion that effective teaching is an ever-evolving journey, and the ability to pivot in response to student feedback and performance is paramount. The experiential dimension of UDL extends beyond instructional methods to shape interpersonal dynamics within the classroom. As I integrate UDL principles, fostering relationships with students has evolved into a more nuanced endeavour. Understanding and respecting individual learning preferences are paramount in creating a collaborative learning community where students learn not only from me but also from each other. For instance, by implementing regular check-in sessions where students could discuss their learning preferences and any challenges they were facing, helped me better understand and respect individual learning preferences. To build a collaborative learning community, introducing group projects that required students to work together, leveraging each other's strengths. For example, in a project on educational theories, students were grouped based on diverse skills: some excelled in research, others in presentation, and yet others in technology. This approach not only facilitated peer learning but also helped students appreciate the value of diverse perspectives and skills. This collaborative environment enriches the educational experience, reinforcing the concepts of lifelong learning and communities of practice.

Embarking on the journey of integrating Universal Design for Learning (UDL) into my pedagogical approach for first-year undergraduate students has been both illuminating and, at times, daunting. One of the foremost challenges I grapple with is the need for a change in thinking in my teaching philosophy. Transitioning from traditional, standardised methods to the nuanced landscape of UDL demands a recalibration of instructional strategies (Meyer, Rose, & Gordon, 2014). It is a transformative process that calls for breaking away from the comfort of familiar teaching routines and urges me to embrace flexibility and adaptability.

Creating learning materials that embody UDL principles poses another set of challenges. The quest for inclusivity demands meticulous attention to detail and a creative reimagining of

course content (Burgstahler, 2015). To address these challenges, I adopted Tom Tobin's and Kirstin Behling's (2018) UDL "*plus one*" mindset, which suggests making one additional format available for every resource. For example, if leaving written notes on their loop page, I would also offer an audio version. This incremental approach made unplanned extra notes more manageable and less overwhelming. I also incorporated feedback loops every few weeks where students could suggest adjustments that would help them better engage with the material. One practical solution involved using technology such as 'Vevox' an interactive engagement tool and online discussion forums via loop, creating a more inclusive and interactive learning environment. These tools allowed for real time feedback and engagement, which were crucial in adapting my teaching methods to meet diverse student needs effectively.

The time and effort invested in designing materials that cater to diverse learning needs and abilities underscore the resource-intensive nature of this endeavour. Striking a balance between aspirations for inclusivity and pragmatic constraints of time and resources requires a delicate dance and navigating the human dimension of this change has proven to be an equally significant feat. Cultivating awareness and acceptance of UDL principles among students and colleagues requires intentional communication and advocacy. Overcoming pre-existing attitudes and fostering a community that recognises the value of diverse learning experiences necessitates a sustained effort.

The higher number of students within classrooms also poses challenges; it is not easy to build rapport with each student. Thus, creating an approachable, friendly, and open environment is vital to ensuring students feel comfortable approaching, disclosing their challenges, and expressing their understandings and needs (McCarthy, 2017). Continuous assessment and adjustment of instructional methods have become integral aspects of this journey. For instance, I implemented regular formative assessments, such as quick polls and exit tickets, to gather immediate feedback on student understanding and engagement. This feedback informed real time adjustments to my teaching strategies, ensuring that all students could keep pace with the material. The iterative nature of refining UDL applications is an ongoing challenge, demanding a commitment to reflection and adaptation. By routinely revisiting lesson plans and materials, incorporating diverse media formats and interactive elements to cater to different learning preferences. For example, replacing traditional lectures with a mix of videos, interactive simulations, and hands on activities, which allowed students to engage with the content in various ways. This dynamic process is not without its uncertainties and complexities, but each challenge encountered serves as a catalyst for personal and

professional growth. Reflective practices, such as maintaining a teaching journal and engaging in peer observations, have been crucial. These practices helped me critically analyse my methods and outcomes, leading to continuous improvement. In embracing these challenges, I find myself not only navigating the terrain of UDL but also contributing to a broader conversation on inclusive practices in higher education; by sharing my experiences and insights in departmental meetings and staff room conversation, I am fostering a culture of collaboration and mutual learning among colleagues. This personal reflection captures the intricate dance of adaptation, growth, and advocacy as I strive to create an educational environment that genuinely caters to the diverse needs of my first-year undergraduate students.

#### **4. Embracing Successes.**

Amidst the challenges encountered in integrating Universal Design for Learning (UDL) into my pedagogical approach for first-year undergraduate students, notable successes underscore the transformative impact of inclusive practices. One of the most rewarding achievements has been witnessing a palpable shift in student engagement and attendance. End of semester feedback highlighted this change with comments such as: Student one: *“engaging module and one that people actually wanted to go to”*, Student two: *“the lectures were engaging and interesting”* and Student Three: *“honestly my favourite module a relaxing engaging environment where I felt my own ideas come to life it was the only lecturer I never dreaded”*.

The flexibility afforded by UDL has empowered a broader spectrum of learners, enabling them to interact with course content in ways that resonate with their individual diverse learning needs and preferences (Rose & Meyer, 2002). This newfound enthusiasm has translated into more dynamic class discussions, presentations, and a palpable sense of ownership over their learning journeys. Another significant success lies in the tangible improvement in academic outcomes. As UDL principles accommodate diverse learning needs, students who may have previously faced barriers are now demonstrating enhanced understanding and proficiency (Burgstahler, 2015). This not only speaks to the effectiveness of inclusive practices but also reinforces the notion that embracing diversity in instructional design contributes to a more equitable and enriching learning experience for all. The positive impact extends beyond individual student achievements to foster a sense of community within the classroom. Collaborative learning, facilitated by UDL, has become a cornerstone of our educational

environment (Scott, McGuire, & Foley, 2003). Students, regardless of their varied backgrounds, are finding common ground and learning from one another. The classroom has transformed into a vibrant space where diverse perspectives are not just welcomed but celebrated. One student expressed this sentiment, stating: *“I always felt at ease in this modules lecture. An inclusive environment where everyone regardless of background was created from day one. Open communication was always encouraged.”*

Furthermore, successes are evident in the evolving attitudes of both students and colleagues toward UDL, not only in the classroom but also within assessments (Burgstahler, 2015). As awareness grows, there is a noticeable shift in the collective mindset toward embracing inclusivity. Colleagues are increasingly open to exploring UDL in their own practices, fostering a collaborative culture that extends the benefits of inclusive education across disciplines. These successes, while affirming the efficacy of UDL, also serve as motivation to continue the journey of refining and expanding inclusive practices in HE. The impact goes beyond individual accomplishments, contributing to a more holistic and equitable educational landscape.

## **5. Lessons Learned and Ongoing Reflections.**

The journey of integrating Universal Design for Learning (UDL) into my pedagogical approach for first-year undergraduate students has proven to be a multifaceted experience, offering profound insights into inclusive educational practices. A valuable lesson I have learned is the necessity to view flexibility in instructional methods not merely as a pedagogical strategy but as a fundamental shift in mindset (Novak, 2016). Embracing UDL demands an ongoing commitment to recognising and accommodating diverse learning needs, fostering an environment where each student's educational journey is acknowledged and supported. Effective communication and proactive engagement emerge as indispensable components in promoting acceptance and understanding of UDL principles (Couros & Novak, 2018). Articulating the rationale behind inclusive practices cultivates a collaborative ethos among students and colleagues, laying the groundwork for a collective dedication to diversity and inclusivity in education.

The ongoing processes of UDL implementation underscores the importance of reflection and responsiveness (Flood & Banks, 2021). Each classroom encounter provides an opportunity to assess and refine instructional methods, tailoring approaches to better align with the diverse



needs of students and flexibility and adaptability, both in curriculum design and classroom dynamics, emerge as integral elements of this ongoing learning process. Navigating challenges highlights the need for resilience and a growth mindset whilst viewing setbacks as opportunities for improvement rather than obstacles is essential. This resilience extends to addressing resistance or scepticism from students or colleagues, recognising that change often entails overcoming initial discomfort and uncertainty. Collaboration and shared learning emerge as essential components of the journey toward UDL integration (Novak, 2016; Fovet, 2020). Engaging with fellow educators to exchange experiences, strategies, and insights fosters a supportive community of practice (Sonsupap & Cojorn, 2024) dedicated to UDL principles. Such collaborative efforts not only contribute to personal growth but also fuel broader transformations in educational practices. The insights gained from integrating UDL extend far beyond the confines of the classroom as they play a vital role in fostering a culture of inclusivity, adaptability, and continuous improvement within the educational institution. As I continue along this transformative path, these insights serve as guiding principles, shaping my evolving understanding of UDL and its profound impact on the educational journey of first-year undergraduate students.

## 6. Conclusion.

The journey of integrating Universal Design for Learning (UDL) into my teaching for first-year undergraduates has been nothing short of transformative. Through navigating challenges and embracing successes, I have witnessed firsthand the profound impact of inclusive pedagogical practices. The challenges encountered, including paradigm shifts in instructional methods and the resource-intensive nature of content creation, have not hindered progress but rather encouraged personal and professional growth. These challenges have driven me toward a deeper comprehension of the intricacies involved in fostering inclusivity within higher education environments. In the face of these challenges, notable successes have emerged, reflecting the tangible benefits of UDL implementation. Heightened student engagement improved academic outcomes, and the cultivation of a collaborative learning community of practice stand as testament to the power of inclusive practices. Yet, beyond the visible outcomes lie invaluable lessons learned and the journey of integrating UDL has underscored the importance of resilience and continual improvement. Each obstacle encountered has provided an opportunity for reflection and refinement, reinforcing the notion that adaptability and innovation are paramount in educational practice. Furthermore, UDL demands more than

just a surface level adjustment to curriculum design; it necessitates a fundamental shift in mindset, a commitment to inclusivity that permeates every aspect of teaching and learning. As I continue along this dynamic path, the experiential lessons learned inform my practices, reminding me of the ever-present need for adaptability, flexibility, and innovation in education. Looking forward, the integration of UDL stands as a beacon for creating a more equitable and enriching educational experience, one that celebrates the unique strengths of every learner and fosters a diverse and inclusive educational environment. As educators, it is our collective responsibility to embrace this journey, to champion inclusivity, and to pave the way for a brighter future in higher education. Reflecting on the journey thus far, it is essential to consider how can I and we as educators continue to refine and expand our inclusive practices. Embracing ongoing reflection, seeking feedback from students and colleagues, and remaining open to new ideas and approaches are critical components of this process. By fostering a culture of reflective practice and continual improvement, we can ensure that our classrooms remain dynamic, inclusive, and responsive to the diverse needs of our students.

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