

NAVIGATING COMPLEXITIES OF EDUCATOR PROFESSIONALISATION: IMPLICATIONS ON PROGRAMME DESIGN & EVALUATION

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ABSTRACT

This study explores the principles of effective professional development (PD) through a case study of a Universal Design for Learning (UDL) training programme in higher education (HE). In increasingly diverse HE environments, inclusive teaching is essential. Although UDL frameworks offer robust guidelines for fostering inclusivity, there is limited understanding of how PD interventions translate into sustained behavioural change among educators. This study identified key factors influencing learning transfer. The case study involved a three-day UDL training programme conducted at a Flemish university, attended by 25 participants from various faculties. The training aimed to enhance participants' knowledge, confidence, and ability to implement inclusive teaching strategies. The programme incorporated practical exercises, discussions, and collaborative activities. Data collection included voluntary feedback from participants and expert input during a roundtable discussion at the EAPRIL 2024 conference. Thematic analysis identified three critical factors for effective learning transfer: structured and adaptive training design, trainer scaffolding, and participant self-reflection. Findings highlight that learning transfer requires continuous support, adaptable content, and reflective practices. Trainers play a crucial role in guiding participants through challenges and reinforcing learning outcomes. This study underscores the importance of PD programmes that balance immediate applicability with long-term behavioural change. Future research should explore the interplay between the three critical factors across diverse institutional contexts.



BACKGROUND

The complexity of professionalisation

As higher education (HE) classrooms diversify, educators must create a responsive learning environment (LE) that maximises the potential of various learners (Awang-Hashim et al., 2019). Inclusivity is a fundamental principle that guarantees equitable access, participation, and success for all learners, irrespective of their backgrounds, abilities, or circumstances (Göransson & Nilholm, 2014; Moriña, 2017). Achieving inclusivity in HE necessitates a multifaceted strategy encompassing curriculum, pedagogy, professional development (PD), technology utilisation, and cultural competence training and assessment (Awang-Hashim et al., 2019; Li et al., 2022; Riedel et al., 2023; Jaegler, 2022). The mechanisms supporting effective educator professionalisation remain ambiguous. PD programmes (PDPs) emphasise various sources of conformity (Kelman, 1958) yet lack evidence regarding their impact on daily teaching practices. This study therefore digs deeper into the principles of an effective PDP and uses this PDP on UDL in HE as a case study.

Understanding the context: UDL training as a case study

Universal Design for Learning (UDL) emphasises providing various means of engagement, representation, action, and expression to eliminate learning barriers and promote accessibility and success for all learners (Dalton et al., 2019; Espada-Chavarria et al., 2023; Rose et al., 2006; Sewell et al., 2022). UDL offers a systematic approach to inclusivity by promoting curriculum design that addresses various learning needs. Integrating adaptable teaching techniques and resources accommodates diverse learners, fostering equitable access to education across various LEs, including online and asynchronous courses (Almeqdad et al., 2023; Dalton et al., 2019; Ismailov & Chiu, 2022; Sanger, 2020).

PDPs on UDL can significantly enhance educators' skills in creating and maintaining inclusive LEs by improving their ability to acknowledge learner diversity and implement accessible lesson planning and teaching strategies (Rusconi & Squillaci, 2023). The effectiveness of UDL training seems to be independent of factors such as duration, teaching style, participant profiles, and the type of educators involved. However, despite its theoretical strengths, the empirical evidence about the effectiveness of the PDPs on UDL remains varied (e.g., Fränkel, Sterken & Stinken-Rösner, 2023). The lack of empirical support for the claims warrants more research into the mechanics to make PDPs on UDL a success. This study is contributing to this.

Effective PDP outcomes

Well-structured programmes or content is not enough for effective PDP training outcomes. Educators frequently encounter various challenges: inadequate training and support for personnel constitutes significant obstacles. Inclusion-focused initiatives may



fail if participants lack the necessary skills or continuous support to apply strategies in real-world educational contexts (Fränkel, Sterken & Stinken-Rösner, 2023; Rokhim, Suryadi & Supadi, 2021). Additionally, inclusive education is often hindered by curricular and infrastructural limitations. When a curriculum is poorly tailored to meet the needs of all learners and the infrastructure is insufficient to support their development, their learning experiences are significantly compromised (Rokhim, Suryadi & Supadi, 2021).

There are measurement instruments available, such as the LTSI and LTEM, that provide insights into the extent to which learning transfer has occurred (LTEM) and the contingent factors that might have either hindered or facilitated learning transfer (LTSI) (Holton et al., 2000; Thalheimer, 2018). These survey instruments evaluate the degree of learning transfer from any learning intervention and can assess whether a curriculum is (poorly) aligned with the needs of learners or the performance infrastructure. These tools will illuminate what makes UDL PDP training effective and how to maximise its effectiveness.

Drivers for effective educator professionalisation programmes

Despite growing attention to the importance of PD in fostering inclusive practices, much of the existing research emphasises the broad outcomes of PD rather than delving into the specific mechanisms that drive their effectiveness. The effectiveness of these PDP programmes is a subject of ongoing research, with mixed results regarding their impact on teaching practices and learner outcomes due to challenges, such as divergent views on training goals or challenges in measuring impact (Gibbs & Coffey, 2000; Loyalka et al., 2019). There remains a critical gap in understanding how PD interventions translate into meaningful behavioural change among educators. Specifically, little is known about the contextual and systemic factors that support or hinder this process. Using a case study, this study seeks to bridge this gap. The research aims to uncover the mechanisms that enable the transfer of learning into effective inclusive practices, addressing the question: *What are the fundamental factors that facilitate effective training and learning in educator professionalisation?*

METHODS

The case study

Qualitative research was used to answer this exploratory question. Using a single case study, we examined a UDL training course in HE to answer our research question. This case study involved a three-day UDL course. A Flemish HE institute hosted the training to help educators construct inclusive LEs. Three key components comprised the



program. First, using the Triandis paradigm (1971), which defines attitudes as emotional, cognitive, and behavioural responses to stimuli, it sought to educate educators about inclusion and diversity. The training promoted inclusive attitudes across several dimensions as a core mindset. Second, the programme provided practical tools and methods to assist educators in implementing inclusive teaching practices that prioritise accessibility, representation, and decolonisation. Third, the programme sought to boost instructors' self-efficacy, the confidence that they can meet varied learning requirements, a concept rooted in Bandura (1969, 1997), who found it to predict motivation and performance.

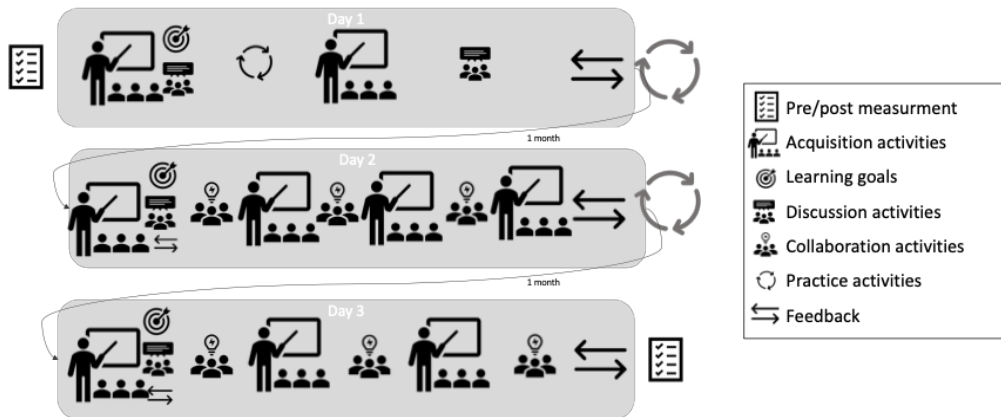
The training programme consisted of three non-consecutive days (one month between every training day), each with distinct objectives. The first day focused on building awareness, increasing learners' participation, and fostering a diversity-responsive mindset. Activities emphasised transitioning from presentation-based teaching to interactive and inclusive teaching approaches. The second day concentrated on developing competencies in inclusive teaching methods, such as creating accessible study guides and applying UDL principles, focusing on accessibility, representation, and decolonisation. The third day addressed inclusive assessment practices, including alternative grading methods and effective feedback, emphasising practical application and behavioural change.

To simplify and categorise the training activities, Laurillard's (2012) framework of six learning types was used. These types provide a structured lens to understand the diverse activities within the programme. First, **acquisition activities** included presentations and reflective discussions that provided foundational knowledge about UDL and inclusive practices. For example, participants reflected on how UDL principles could be applied in their teaching. Second, **discussion activities** enabled participants to share experiences and perspectives on implementing inclusive teaching methods, such as group dialogues about accessible study guides and assessment techniques. Third, **practice activities** involved practical exercises where participants developed and tested skills in inclusive teaching, such as designing alternative assessment methods or creating inclusive teaching materials. Fourth, **investigation activities** included exploring case studies to apply UDL principles to realistic scenarios, such as examining the impact of representation and accessibility in teaching resources. Fifth, **collaboration activities** promoted peer learning through group projects and sharing best practices, often facilitated by tools like Padlets. For example, participants collaborated to create inclusive study guides. Finally, **production activities** consolidated learning by requiring participants to create tangible outputs, such as portfolios of inclusive teaching strategies for diverse learners. Feedback activities were added as an additional part of the process. The learning activities are visually mapped onto Laurillard's (2012) framework in Figure 1, providing a clear overview of the programme's design.

Figure
UDL programme design

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This mapping illustrates the diverse approaches used to achieve the training’s objectives and highlights the alignment between the activities. By integrating theoretical insights with practical applications, this training programme offers a comprehensive example of how to support educators in fostering inclusive LEs. As such, it serves as a robust case study for analysing training effectiveness and learning transfer.

Research data, participants and analytical approach

Data for this research was gathered from two primary sources to ensure diverse perspectives and enable data triangulation through cross-analysis of participant feedback and expert input:

1. **Participant Feedback:** Voluntary feedback was collected at the end of the UDL training from participants through an anonymous survey. Approximately 40% of the participants completed this survey, offering insights into their experiences and perceptions of the training. Here, questions such as ‘what did you think of the training?’, ‘what is useful from the training?’ or ‘what have you already been able to do with the training in practice?’ were asked. This post-measurement feedback was essential in understanding how the participants evaluated the immediate applicability and value of the course.
2. **Expert Feedback:** A roundtable discussion was conducted during the EAPRIL 2024 conference, involving trainers, academics, and practitioners. The session was organised to gather additional input on the design and delivery of the UDL course and explore ways to improve future iterations of the program. This provided a broader perspective on the course’s perceived strengths and potential areas for improvement.

The UDL course was attended by 25 participants, all affiliated with a Flemish university. The group represented a diverse mix of academic disciplines, with participants from various faculties, ensuring a broad range of perspectives. Although the audience was



predominantly female, the diversity in professional backgrounds contributed to rich discussions and reflections during the sessions. Participation in the course was entirely voluntary, and the sessions took place over two years, in 2022 and 2023.

The data collected from both sources were analysed using thematic analysis. To enhance the rigour of the analysis, thematic coding was performed independently by two senior researchers, and any discrepancies were discussed to reach consensus and increase the inter reliability of the findings.

RESULTS

The numerous insights and observations of the experts and course participants were quite diverse and related to all the different stages of the course. The remarks and suggestions related to aspects before, during and after the course. We have clustered these comments thematically, inspired by the Gioia (2013) method. The data structure can be found below in Table 1.

Table 1

Thematic clustering of the data



Illustrative quotes ^{a,b}	Second-order concepts	Aggregate dimensions
- Maybe begin each session with what an opportunity to listen what happened in practice. (E) - One month in between seems quite long to me. Doesn't it fade into the background then? Two weeks would be better. (E)	Concerns about knowledge retention and embedding of what has been learnt in the course	Learning Transfer
- We have seen many concrete examples, including examples how other course participants approach it. (P) - I think I will only make minor adjustments for the time being: e.g., adjusting names in case studies. In the long term, actions will probably have to be taken. I have already discussed it within the team. (P) - I am going to change a number of small things, such as giving an overview of the trajectory in each lesson, making objectives clear, taking time to get in (but this still needs to be worked out :-), etc. (P)	Inspiration and questions about practical feasibility of implementing what has been learned	
- Can or can't the learning objectives be adjusted along the course? (E) - Start from the experiences of the learners instead of theory. (E)	The train-the-trainer needs to repeat the learning goals and tailor it to the teacher's needs.	Scaffolding: Repeat and Tailor the content to the learning needs
- I intend to provide more diverse teaching materials from which students can choose to practice learning material. (P) - I will organize my lessons differently: first a short recap presentation and then let them practice new learning material. (P)	The teacher's trainer needs to repeat the learning goals and tailor it to the student's needs.	
- Are the learning goals achieved? (E) - Is there enough time for Feedback/reflection? (E)	Systematic evaluation and feedback	
- Participants indicate that the 6 principles provide a solid basis. - I am more aware of how students think and how this way of thinking should be accommodated by the teacher. However, I have also become concerned by the practical implications/obstacles around this. I sometimes experience resistance in myself; it is good that I have done some introspection. (P) - How to build a lesson like a car that can be adapted to the needs of the student (adjusting mirrors, moving seats forward). That you can remain authentic as a teacher, strengthened my confidence. (P) - Awareness and understanding have certainly expanded. - Decolonization: to make the course a bit more light-hearted, I showed a photo of Mr. Hooke with 'Hooke's law'. I am now looking for another way to make the course more light-hearted and will now also try to name Hooke's law differently. (P)	Personal growth, reflection, and awareness	Self-efficacy

Note. a = Dutch quotes are translated to English. Care was taken to ensure that the translation and the original quotes remained closely related. b = source (E) = expert, (P) = participant



Theme 1: Concerns about learning transfer

Experts were primarily concerned with the link between the UDL course and participants' practice, questioning what was retained by the participants. One expert highlighted the risk of spreading the course over time: *'One month in between seems quite long... Two weeks would be better.'* They also suggested ways to promote the transfer of learning to the workplace, such as beginning each session with a reflection on practice (see first row, Table 1).

Participants echoed similar concerns, framing them slightly differently. They emphasised the practical value of the course, noting, *'We have seen many concrete examples, including how others approach it.'* They also shared intentions to make small adjustments in their curricula, such as modifying case study names or providing clearer lesson objectives. One participant said, *'I think I will only make minor adjustments for now, like adjusting names in case studies... I've already discussed it within the team.'* Another participant mentioned, *'I'm going to change a number of small things, like giving an overview of the trajectory in each lesson...'* (see second row, Table 1)

We infer from these quotes that **both groups recognised the course's value**. Participants appreciated the **immediate applications** the UDL course offered, while experts were **concerned with embedding knowledge into daily practice**. Both groups' responses align with the concept of learning transfer, defined by Talheimer as the use of learnt experiences in real-world situations (Talheimer, 2018).

Theme 2: Scaffolding

Another important theme identified was the need for trainers to support learning transfer through scaffolding techniques (Van de Pol et al., 2010). Experts emphasised starting from learners' experiences rather than from theory. They argued that starting from personal learning goals makes it easier to guide learners towards final objectives. Continuous monitoring was deemed essential, with systematic evaluation and feedback in place to assess whether learning goals were achieved.

Experts repeatedly asked *'Whether the learning goals had been achieved?'* Participants highlighted the importance of adapting content to learners' needs, such as offering diverse teaching materials for practice. Both groups stressed **the importance of continuously tailoring the course to participants' specific needs** and ensuring **learning transfer** during the training programme.

Theme 3: Self-efficacy

While learning transfer must be supported by the trainer and the course, course participants ultimately need to take ownership. Experts emphasised structured evaluations and feedback, while participants focused on personal growth and reflection. One participant stated, *'I am more aware of how students think and how this way of thinking should be accommodated by the teacher. However, I have also become concerned by the practical implications/obstacles around this.'* This reflects



the concept of self-efficacy: 'People's judgments of their capabilities to organise and execute courses of action required to attain designated types of performances' (Bandura, 1985, p. 391).

The three identified themes are interconnected. One expert summarised the interplay: "To achieve meaningful transformational learning, there must be inspiring, reflecting, and experiencing to transform; that's transformative learning. Experts focused on structural aspects, such as **session connections and consistency of learning goals**, while participants appreciated **the practical inspiration and applicability** to their work context. Achieving transformational learning requires learning transfer, scaffolding, and self-efficacy.

Discussion

This study examined the fundamentals of educator professionalisation training and learning. Thus, a three-day UDL training programme was analysed using the LTSI and LTEM models. Analysis of participant and expert comments revealed three key factors: learning transfer, scaffolding, and self-efficacy.

In this study, **learning transfer between training sessions and practice was a key concern**. Experts emphasised session timing and integration of learning objectives, as research shows that well-timed, integrated training improves retention (Holton et al., 2003). Professionals recommended starting each session with reflective discussions to maintain continuity and reinforce competence. While participants valued the course, they prioritised immediate applicability. The tension between short-term application and long-term sustainability points to the need for institutional support (Hutchins et al., 2013).

The findings highlight **the trainer's role in accommodating diverse learning needs and transmitting information**. Experts recommended adapting training to participants' prior experiences and rigorously assessing progress. Educators should evolve from content delivery to transformative learning facilitation, helping participants connect reflections to learning outcomes to enhance decision-making and competence. Participants emphasised flexibility in training design, suggesting varied materials and adjusted session goals. Earlier studies (Capp, 2017; Nijakowska & Guz, 2024) underline the importance of adaptation in inclusive teaching programmes.

Self-reflection is crucial for behavioural transformation. Experts emphasised **formal evaluation**, while participants highlighted **introspection and personal growth** for UDL implementation. According to Bandura's (1997) self-efficacy theory, confidence in one's abilities predicts motivation and persistence. The integration of personal capacity for transfer (LTSI) and decision-making competence (LTEM) illustrates how self-evaluation helps learners identify problems and adjust their practice.



Limitations and Future Directions

This study has its limitations. As a single case study, the findings are context-specific and may not be generalisable to other training programmes or institutional settings. To examine the relationship between the three factors, longitudinal and mixed-methods research should fill these gaps.

CONCLUSION

This study investigated the ways in which UDL training within PDPs can promote behaviour change among teachers. Three essential elements emerged: learning transfer, trainer support and self-reflection. Collectively, these elements provide a solid foundation for designing effective PDPs that support teachers in implementing inclusive teaching principles.

Learning transfer requires a carefully tuned and flexible design of training sessions, in which both reflective moments and practical applicability are of equal importance. Trainers perform a crucial function in this process by aligning content with participants' experiences and providing ongoing support. Self-reflection promotes ownership and strengthens teachers' confidence, enabling them to integrate the principles of UDL into their teaching practices with greater conviction and sustainability.

To maximise the impact of UDL training, PDPs should not focus solely on short-term inspiration, but also on long-term support and promotion of behavioural change. Integrating reflection, flexibility and structural guidance can contribute to a deeper application of inclusive teaching practices within these programmes.

Educational institutions, policymakers and trainers are encouraged to integrate the principles of UDL into PDPs strategically. This requires collaboration and an ongoing investment in reflective and practice-based methods. Only by collaborating can we foster a LE that is both sustainable and inclusive, ensuring benefits for all learners.

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