

Higher level degree apprenticeships done right: exploring pedagogical practices through a qualitative lens at a research-intensive university

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Abstract

Purpose – The purpose of this study is to construct a comprehensive pedagogical framework for work-based learning, particularly within the context of rapidly expanding Higher Level Degree Apprenticeship (HLDA) programmes in the UK.

Design/methodology/approach – The study is based on qualitative survey data collected from staff involved in teaching at a range of HLDA programmes at a research-intensive university, including programmes in the areas of medical imaging, management, digital technologies, clinical practice, education, mining and finance.

Findings – The research identifies key pillars of effective HLDA pedagogy, including fostering skill development, applying coaching and mentorship methods, building community and promoting empathy and self-awareness. These elements collectively highlight the importance of a holistic, integrated approach to work-based learning.

Practical implications – The findings provide practical recommendations for educators to design and deliver impactful work-based learning experiences in a variety of HLDA programmes, supporting effective and meaningful pedagogy in this context.

Originality/value – This research contributes original insights by advancing the understanding of effective pedagogical practices specifically tailored to the field of work-based learning within UK HLDA, addressing a gap in existing educational frameworks.

Keywords Teaching methods, Degree Apprenticeship, Work-based learning

Paper type Research article

Introduction

Higher Level Degree Apprenticeship (HLDA) programmes adopt a work-based learning model that combines full-time employment with part-time study towards a diploma or degree qualification in the UK (DfE, 2025; QAA, 2018). This design meets industry needs while integrating academic learning with practical experience, enabling apprentices to gain a relevant degree without incurring tuition fees (Anderson, 2018; Bradley *et al.*, 2019; Crawford-Lee and Wall, 2018).

Since 2011, England's apprenticeship system has undergone major reforms (Wolf, 2011; Richard, 2012; DfE, 2024), expanding to over 400 standards from undergraduate diplomas to masters' degrees and serving as entry routes into a wide range of professions (DfE, 2025). Nearly a decade later, evidence demonstrates that HLDAs deliver positive outcomes for both apprentices and employers, including skills development and productivity gains (Nawaz *et al.*, 2022). These programmes have also widened participation, creating opportunities for learners



with diverse needs who must balance employment and study (Crawford-Lee and Moorwood, 2019; Welbourn *et al.*, 2019; DfE, 2025).

Delivering HLDAs requires higher education institutions to rethink traditional pedagogical practices (Rowe, 2018; Welbourn *et al.*, 2019). Close collaboration between universities and employers is essential for developing curricula that meet industry demands and effectively support learners (Quew-Jones, 2023). This involves not only classroom teaching but also structured guidance through two key roles (Robert *et al.*, 2019):

- (1) *Academic mentor* – a figure within the higher education institution who supports apprentices in applying academic knowledge in the workplace and bridges communication between the university, the student and the employer. This role is referred to differently across institutions (e.g. *coach*, *tutor*) but commonly participates in tripartite reviews involving the apprentice, the employer and the education provider (Rowe, 2018).
- (2) *Workplace mentor* – typically a more senior employee within the organisation who supports the apprentice's day-to-day work-based learning, often drawing on their own professional experience.

In addition, lecturers teaching on HLDA programmes frequently have prior industry experience (Rowe, 2018). The quality and effectiveness of teaching and mentoring – across both institutional and workplace settings – play a critical role in preparing apprentices for future challenges, driving social mobility and promoting innovation within the workforce (Bradley *et al.*, 2019; Nawaz *et al.*, 2022).

Despite the centrality of these roles, empirical research on HLDAs has primarily focused on the student experience rather than on teaching and mentoring staff, even though their practices differ significantly from those in traditional higher education (Konstantinou and Miller, 2020; Quew-Jones, 2023; Rowe, 2018). This study addresses this gap by exploring the teaching practices adopted by staff involved in the delivery of HLDAs within a research-intensive UK university, using an exploratory, qualitative research design. The study is structured as follows: it starts with an overview of current research on HLDA pedagogy, followed by a description of our case study and methodology. Findings and discussion are presented around four key dimensions of what we term “optimal pedagogical practice” in HLDAs, culminating in an integrative model of these pillars. The study concludes with practical recommendations for staff delivering HLDA programmes.

Teaching practices in HLDAs

HLDAs in the UK are designed to integrate academic study with work-based learning, creating a strong alignment between theoretical knowledge and workplace practice (QAA, 2018). This dual learning model spans multiple industries and career stages, offering benefits for both learners and employers (Welbourn *et al.*, 2019). Compared to other work-based learning arrangements – such as placements or live projects – HLDAs represent one of the most integrated approaches (QAA, 2018), making them an important context for understanding how to deliver effective pedagogical practices in work-based learning.

Despite this promise, aligning academic and workplace learning poses considerable challenges (Bravenboer, 2016; Powell and Walsh, 2018; Rowe *et al.*, 2016, 2017; Rowe, 2018). The complexity arises from the need for collaboration between employers and universities and the redesign of traditional academic formats (Quew-Jones, 2023). This has prompted calls to identify teaching strategies that ensure positive learner outcomes in HLDA settings (Dennen and Burner, 2008).

One widely referenced approach is the *cognitive apprenticeship model*, defined by Collins *et al.* (1989, p. 456) as “learning through guided experience on cognitive and metacognitive skills and processes”, shifting the emphasis from physical skills to the development of higher-

order thinking. Research has demonstrated its effectiveness in promoting positive student outcomes (Alwafi, 2023; Dennen and Burner, 2008; Jensen *et al.*, 2023; Liu, 2005; Ostovar-Namaghi *et al.*, 2024). Building on this model, Dennen and Burner (2008) argue that teaching staff should adapt their practice by modelling thought processes, asking questions that stimulate cognitive engagement, encouraging and verbalising reflection, and fostering hypothesis exploration. Such activities have been linked to supportive social networks, sustained career progression (Jensen *et al.*, 2023) and enhanced critical thinking skills (Alwafi, 2023).

However, while cognitive apprenticeship addresses important elements of workplace learning, it does not fully capture the broader pedagogical needs of HLDAs, particularly the role of sustained reflection in linking academic theory to workplace practice. Reflection is widely recognised as a cornerstone of professional development and critical thinking (Schedlitzki, 2019; Urkia-Basterra *et al.*, 2025). Techniques such as reflective journaling, portfolios, peer discussion and problem-based assignments are commonly recommended (Helyer, 2015; Kelliher and Byrne, 2018; Konstantinou and Miller, 2021; Smith and Martin, 2014; Travers, 2022; Vespone, 2023). Yet, research indicates that opportunities for structured reflection remain inconsistently embedded in HLDA programmes (Colombari and Neirotti, 2022; Rowe *et al.*, 2020), limiting their impact on identity formation, confidence building and lifelong learning skills.

A further gap within this model is the explicit consideration of inclusive teaching practices. HLDA cohorts are increasingly diverse in background, experience and learning needs. While inclusive pedagogies are broadly advocated (Cotán *et al.*, 2021), current literature provides only abstract principles, offering little actionable guidance for HLDA contexts. Most studies focus on learner difficulties (Qew-Jones, 2023) rather than designing pedagogies that respond to the full spectrum of equality, diversity and inclusion (EDI) considerations.

Understanding how to implement an effective HLDA teaching model is essential, as the quality and experience of teaching staff directly influence learning outcomes, skill transfer and long-term career trajectories (Espina-Romero *et al.*, 2023; Fabian *et al.*, 2022; Welbourn *et al.*, 2019). Curricula that are closely aligned with workplace practice can optimise opportunities for skill development (Lillis and Bravenboer, 2020) and help reduce the perceived disconnect between academic learning and real-world experience (Konstantinou and Miller, 2021). Prior work highlights valuable pedagogical principles – such as cognitive apprenticeship and reflective practice – but these remain fragmented and under-theorised within HLDA contexts, with limited guidance for implementation. This raises the importance of investigating how these approaches can be extended into a more holistic model of work-integrated learning. This study contributes to that agenda by examining how teaching practices in HLDAs can systematically integrate cognitive and reflective strategies to support inclusive, effective pedagogy in higher-level work-based education.

Methodology

This research was conducted within HLDA programmes at the University of Exeter, one of the UK's largest research-intensive universities that offers HLDA, with nearly 3,000 apprentices and over 400 employer partners. The university has received multiple national awards for inclusive teaching and employer collaboration, reflecting its commitment to combining academic excellence with real-world skills. Its success made it a natural case study for this exploratory research, based on the assumption that pedagogical practices of staff contributed significantly to positive outcomes.

Teaching staff, including lecturers and academic mentors (collectively referred to as “tutors”), participated in a qualitative survey via Qualtrics, responding to five open-ended and six short-answer questions. The open questions focused on their pedagogical approaches and perceptions of effectiveness. Participants taught across HLDA programmes in medical imaging, management, digital technologies, clinical practice, education, mining and finance.

This project was reviewed and approved by the ethics committee at the University of Exeter and was conducted in compliance with ethical standards. The research did not aim to evaluate practices within a specific programme or HLDA standard. Instead, it sought to explore and identify pedagogical strategies commonly employed by tutors across diverse HLDA contexts, contributing to a broader understanding of effective teaching in work-integrated learning environments.

Participants could submit video, audio or written responses. Video and audio lengths ranged from 9 to 38 min, with an average of 21 min, and some participants choosing to write their responses. Thirteen responses were received, and while the variation in format and video/audio length was noted, after their text analysis, the data were deemed sufficient for thematic saturation due to the re-occurrence of themes across participants, so no further participants were invited. This was due to similar codes being identified across participants, with the four themes present in all participant data.

Regarding the analysis, the Gioia methodology was chosen for its suitability for multiple researchers (Gioia *et al.*, 2013) and its promotion of qualitative rigour (Grodal *et al.*, 2021). Six researchers independently analysed the data, generating a wide range of perspectives, as recommended by Gioia *et al.* (2013). Coding in the first-order analysis stage focussed on allowing the participants' voices to be heard. When there were differences in codes, categories were used that would broaden interpretations to capture the range in perception. While a six-person team allowed for diverse perspectives, a potential limitation is that consensus may lead to prioritising majority views and suppressing nuance. In this study, we did not observe such effects but remain aware of the possibility.

Findings and discussion

Our findings show that tutors (our research participants) adopt a range of pedagogical practices, summarised in the “four pillars model” (Figure 1): skill development, coaching and mentoring techniques, community building, and self-awareness and empathy. Together, these form an “optimal pedagogical practice” in HLDA programmes, supporting students' academic success and professional growth. While these areas can overlap and reinforce each other, not all need to be present in every programme or by every tutor for students to succeed. Some

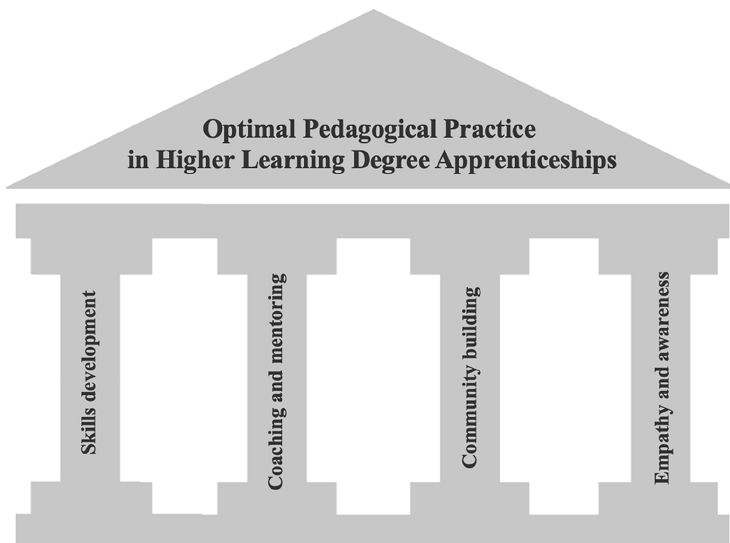


Figure 1. Categories of optimal pedagogical practices that support HLDAs as per the findings of this research

practices may be less implemented or absent in certain contexts. The “pillars” metaphor illustrates that removing a few doesn’t cause the whole structure to collapse, universities can still run HLDAs without all practices. However, our evidence indicates that when all are actively applied, these practices significantly enhance students’ learning and professional development.

We assert that the success of HLDA programmes at our case study organisation is partly due to tutors applying this full set of pedagogical practices. The following sections discuss our findings for each practice category, relating them to existing theory and literature.

Skills development

Skills development has been a central focus of adult learning (Knowles, 1980) and work-based learning practices (Schedlitzki, 2019; Urkia-Basterra *et al.*, 2025). Our empirical evidence further supports the importance of skills development in teaching HLDA programmes, with attention to how workplace alignment and reflection are tools to support this.

The need for aligning HLDA curricula with practice is stressed in the literature (Fabian *et al.*, 2022; Konstantinou and Miller, 2021; Welbourn *et al.*, 2019), with suggestions to incorporate workplace simulation – modelling, coaching, articulation, reflection and exploration – as proposed in the cognitive apprenticeship model (Lillis and Bravenboer, 2020; Ostovar-Namaghi *et al.*, 2024). Lillis and Bravenboer (2020) suggest that simulation pedagogy can be used to bring to light practice cases from the workplace. One tutor shared that after doing this, they role-played responses, evaluated how it went, and reflected and considered different stakeholders similar to Ostovar-Namaghi *et al.*’s (2024) progressive model. They highlight the links this has to developing workplace problem-solving skills:

I like to encourage problem solving skills within the learners by giving them anonymised real-life scenarios that either I’ve encountered in my professional practise and/or published employment tribunal outcomes to look at problem solving . . . We undertake activities relating to role play with the opportunity to provide feedback. I also encourage people to reflect on their own experiences, and what’s important when looking at people management is getting people to be able to reflect from different stakeholder perspectives. (Tutor 4)

Further, our data highlight the importance of explicit ties bringing attention to tactical practices and their impact during tutor modelling:

A lot of the work that we do . . . is about developing those practical skills and how we model them . . . it’s not just walking the walk and talking the talk, you know, it’s actually really showing what we do and why we do it. (Tutor 6)

Urkia-Basterra *et al.* (2025) stress that skills in HLDAs include technical and soft skills like communication, teamwork and critical thinking. Our data show that tutors embed these through activities and discussions, with a reflective approach underpinning skills development across varied contexts (Espina-Romero *et al.*, 2023), and it is apparent how our tutors emphasise a reflective approach for skills development. For instance, one tutor shared:

I get the degree apprentices to talk about an example of success at work and then get them to run through what skills and behaviours they feel they’ve used to do that activity. So, what they’ve learned from the module via the knowledge and then how they’ve adapted it in the workplace by running through a specific example and how they’ve done it, who they’ve done it with, what they’ve done using the technique. (Tutor 3)

Having apprentices identify their skills during tasks reinforces self-awareness, reflection and adaptability, which have been suggested to be crucial for preparing students to tackle complex problems but also for fostering lifelong learning (Jeanes, 2021; Vespone, 2023). Tutors shared practices of pairing critical reflection with skills development as a good practice. Further, concern about broader lifelong learning goals within skills development is illustrated by the example below from a tutor:

Now whether those practical skills are just related to their work or their wider life . . . what I encourage them to do in the module is [to] take a holistic approach that looks at all aspects of their life, not just the work-related skills . . . Here's an opportunity to stand back and look at your own practice for your own benefit, not for employer or for any qualification, but just to make your life more rewarding and fulfilling. And because it's kind of a focus on their own development, there is a high level of engagement I think in the module. (Tutor 2)

Key to this skills development was also reflection (Siebert and Costley, 2013). Research shows that reflection helps learners critically assess experiences, challenge practices, build confidence, plan development and become more self-aware (Helyer, 2015; Konstantinou and Miller, 2021; Siebert and Costley, 2013). With our data, tutors viewed it as essential for shaping interactions, designing tasks, facilitating peer learning and developing teaching approaches. They emphasise reflection should extend beyond academic settings to become part of apprentices' professional identities, fostering ongoing critical inquiry and self-evaluation in the workplace (Konstantinou and Miller, 2021). The following example illustrates these integrated practices.

We talk about reflective practice . . . ways that you can gently introduce reflective practise into your organisations. So, a common example that comes up is in team meetings. Many apprentices include the last 5 minutes of the meeting to just reflect on those things that we've discussed here: what's the learning from this, what are we going to do, what are we going to take away? So, I think this skill of reflective practice is a foundation to that skills development in the workplace. (Tutor 2)

Further to the use of reflection across skills development, a common theme across our findings was the intentional design of assignments to encourage reflection on workplace practices. Tasks were framed to help apprentices draw on experiences, engage critically with challenges and connect theory to practice, echoing prior research (Konstantinou and Miller, 2021; Schedlitzki, 2019).

While literature often discusses reflective methods as standalone tools, our tutors integrated diverse approaches – frameworks, problem-based learning, dialogic activities – holistically with a focus on developing skills. This shift supports Konstantinou and Miller's (2020) call for deliberate, explicit reflection linked to theory and practice.

Coaching and mentoring

Although coaching and mentoring are often conflated (Roberts *et al.*, 2019), key differences exist. Coaching is task-oriented, focussing on behaviours to achieve specific goals, while mentoring is broader and supports long-term development – both task-related and emotional (Van Tiem *et al.*, 2001; Viera, 2021). This immersive approach distinguishes HLDA learning from other modes (Roberts *et al.*, 2019; Konstantinou and Miller, 2021). Our data reflect this, with responses showing practices aimed at guiding and encouraging students rather than simply instructing them. For example:

It's not a dictatorial approach. It's more kind of working with students so that they own their own learning. So, asking them what do they want to develop and how do they think they're going to develop this, and then sort of guiding and signposting them and scaffolding so that they can. (Tutor 6)

To clarify, we are referring here to the practices of coaching and mentoring as pedagogical approaches that can be employed by any of the tutors/research participants in their distinct roles, rather than linked exclusively to the role of "academic mentor" or similar. Some tutors explicitly foregrounded their coaching or mentoring style of instruction terming it an empowering approach (Tutor 9) highlighting its value in fostering learner agency. The tutor below highlighted that this can also involve providing advice through prior expertise:

I take a coaching approach (and) ask questions to generate thought and find out their reality before offering advice. (Tutor 2)

Respondents used interchangeably the terms coaching and mentoring, referring to developing flexible, reflective (for both learners and tutors) and context-specific approaches, guiding learners toward applicable knowledge and skills. A context that surfaced was group coaching. For instance, the tutor below discussed how coaching was used in group work:

Particularly in mixed groups where some may have more experience than others, um, I encourage people to, um, be able to learn from other people's experiences also. (Tutor 4)

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Tutors emphasised valuing learners as individuals and being empathetic (Viera, 2021; Van Tiem *et al.*, 2001) and responsive to their needs (emotional and skill-based). Respondents highlighted the observable development of apprentices because of the coaching and mentoring which they experienced:

I see students growing in confidence, I see students who seemed lost at the beginning starting to find their feet and achieve both academically and with work examples for the portfolio. (Tutor 9)

The data further supported the emphasis on the discussion and exploration stages when bringing workplace examples into the classroom, as highlighted by Ostovar-Namaghi *et al.* (2024), particularly in group environments. The quote below highlights how the tutor can incorporate industry insights to strengthen these discussions, and how discussing as a group might bring more insights:

Students on the DA [HLDA programme] seem especially appreciative of lecturers that demonstrate a practical understanding of their topics rather than simply an academic insight. Informal feedback indicates that they like practical examples and also the opportunity to discuss experiences collectively.

Tutors also noted the value of interactive and group-based formats – including discussions, peer feedback and facilitated conversations – as vital for surfacing knowledge and developing insights. This resonates with Smith and Martin (2014) and Helyer (2015), who highlight peer dialogue and Communities of Practice. Tutors also used tools like Gibb's learning cycle to scaffold reflection, aligning with literature on guided frameworks and reflective journals that help articulate experiences (Kelliher and Byrne, 2018; Siebert and Costley, 2013).

The value of coaching and mentoring interventions to facilitate learning by encouraging critical and independent learning was also illustrative of coaching and mentoring forms of instruction. Overall, the data extracts illustrated a pedagogy centred around coaching and mentoring as interventions most likely to enable skills and behaviour development and to foster more independent peer and problem-based forms of learning (Roberts *et al.*, 2019; Konstantinou and Miller, 2021).

Community-building

Previous studies have identified peer collaboration, development of networks and personal connections as some of the more common elements and benefits reported by learners in work-based programmes (e.g. Fleming and Haigh, 2017; Siebert, 2009; Taylor-Smith *et al.*, 2023; Urkia-Basterra *et al.*, 2025). Such practices align with a constructivist approach to learning based on collaboration and participatory methods (Vespone, 2023), aligned with social theories of learning that emphasise social participation, dialogue and social relationships, beyond individual cognitive processes.

However, the existence of peer networks can often be student-driven and/or do not necessarily emerge from intentional pedagogical design or tutor agency. Some HLDA programmes show apprentices with limited opportunities for interaction, wanting more engagement (e.g. Nottingham and Mao, 2023). Conversely, our tutors demonstrated a strong awareness of their role as key in actively creating safe spaces for students and facilitating relationship-building within peer networks – an important distinction highlighted by Vespone (2023). For instance, one tutor shared:

I'm trying to help the apprentices feel as though they belong in this group, feel as though they belong in this classroom environment, whether that's online or face to face, but it feels safe, it feels as though they can ask questions. They can raise concerns, they can challenge us as we go through. (Tutor 2)

This effort can go beyond just the creation of a supporting environment by the tutor but also involve pro-actively the learners in the joint definition of ground rules in the shape of a "cohort charter", where they commit to positive engagement and maintaining a safe space for all:

I lead the session on developing a cohort charter, where we try and identify the things that people would want to help them, to give their very best, to do their best work in the classes . . . I encourage them to build on it and add things and amend it as necessary to try and make it as um a kind of a living breathing document as much as we possibly can. (Tutor 2)

Having a safe space creates in turn the conditions for learning to take place through relationships (Vespone, 2023). Here again our respondents demonstrated a concern in creating the conditions for such relationships to develop, facilitating meaningful interactions and connections that encourage peer learning and can gradually develop into learner communities.

With our courses, we do also have some on-campus teaching. Those sessions, I think are key to creating relationships between staff and students and within the students. . . . because in their workplaces, they might be the only apprentice there. And so them having a community that they can go to, trust and have relationships, I think is really key . . . and so as much as the campus weeks are about teaching, they're also really about generating those relationships. (Tutor 1)

Tutors pointed to a wide range of practices aimed at incentivising community-building, both in the design of on-campus and online learning experiences. For instance, in both settings, formal teaching is intentionally interspersed with networking, group work, playful practices and relationship-building activities:

Now obviously this is a bit more challenging with online teaching, because you're not having that face-to-face interaction. But in that case, what I would do is making sure that students are interacting with each other in breakout rooms, encourage sort of regular small group discussions so that they can learn from each other. (Tutor 6)

Active promotion of peer-to-peer learning was a common element of practice across all respondents. This included tutors regularly mixing different learning groups in classes, to create longer-term student study groups comprised people from different organisations and varied degrees of experience. Likewise, in some programmes, tutors arranged Action Learning Sets for their students to continue their peer-learning and support outside of the classes' context.

Though learning groups from mixed cohorts might not be "communities of practice" in the traditional sense of the term (as learners can come from a wide range of industries, roles etc.), as Mayes (2002) stresses in such learning groups, the "practice" is the learning itself. Rather than a focus on the group's relationship with a specific practice of activity from their workplaces, here the emphasis is on generating supportive relationships between the group members and building a new common social identity as work-based students.

Empathy and awareness

Empathy and self-awareness are interconnected constructs that have been extensively explored in pedagogical literature (see Butler, 2012; O'Connor, 2008; Watt *et al.*, 2021). Empathy, as defined by Davis (1983), is the ability to understand and share the feelings of another person. It involves cognitive processes such as perspective-taking – putting oneself in someone else's position – and affective processes, whereas self-awareness is the conscious knowledge of one's character, feelings, motives and desires (Goleman, 1995). Roberts *et al.* (2019) suggest that tutors should find ways of working that are mindful of the needs of the apprentices, building upon self-awareness and empathy. In a similar vein, a recurrent theme

across tutors' responses was the need to be aware and appreciate the diverse needs of the student body and how they are feeling. For instance, one tutor shared:

I recognise that there's likely to be a bunch of anxiety about studying again, recognising that we've got people who may never have had formal higher education. Or people who have had quite a gap between studying and then coming back to studying. (Tutor 9)

[Bozkurt and Ozden \(2010\)](#) found that an empathetic climate improves student motivation and success by promoting trust and openness. Respondents echoed this, noting that HLDA students face unique pressures balancing work, study and family. This awareness leads tutors to be more flexible and accommodating than in traditional higher education:

they're very time strapped . . . it's sort of having some compassion and understanding that it's, there's a lot of work to do. (Tutor 5)

This empathy was related to changes in practices and accommodations that were apparent across our data. For instance:

I'm aware that a number of people that work night shifts. I will make sure that if I'm organising webinars and such like, I will have different time options throughout the day to take account of the fact that they need to sleep. (Tutor 4)

This empathy also included the incorporation of inclusive practice and an awareness and empathy toward EDI within the learning environment as a prerequisite of a positive learning environment ([Filippou et al., 2025](#); [Moriña, 2017, 2022](#); [Wilkinson and Nagar, 2025](#)). For many of the tutors in this study, the more general acknowledgement of diversity and cultural differences was a key part of their inclusive learning strategy. All of the researchers recognised this aspect of the data in the first stage of coding independently of one another. Tutor 1 provides an example of how they have adapted their teaching to be more inclusive:

Something that I've incorporated in my teaching [is] highlighting where perspectives are coming from. So, if I am talking about a historical Western perspective, that is absolutely fine as long as I'm acknowledging that, because we have a diverse set of students with wonderfully diverse backgrounds.

Tutor 3 stated that their approach to inclusivity was to simply ask the students how they would like their educator to engage with them to provide as much flexibility to the process as possible. Tutor 3's approach is representative of two consistent themes which resonated throughout the findings: the importance of flexibility and the meaning of "inclusion". The theme of flexibility was widely acknowledged amongst the tutors as a key component of inclusive teaching practice. This was not necessarily to accommodate learning challenges the student may experience but a universally applicable approach. For example, tutor 4 commented on the need to offer apprentices' flexibility in meetings as some of them were working night shifts. Tutor 2 commented that setting group work outside of class times might require longer than anticipated as the apprentices' schedules varied. Contrary to some of the academic literature on the subject, the tutors in this study conceptualized "inclusion" as the participation of all students, rather than as the incorporation of students with particular needs or characteristics.

The extant literature on inclusive pedagogical practice has tended to be vague and ambiguous in relation to inclusivity ([Stentford and Koutsouris, 2021](#)). [Cotán et al. \(2021\)](#) highlighted promoting motivation, a positive environment and collaborative learning, stressing the importance of students feeling included. However, practical advice on how to achieve this is limited. The tutors frequently mentioned the importance of presenting information in various formats. This was explained in part as a provision for individuals with specific learning challenges such as dyslexia and attention deficit disorder but also simply because "not everybody enjoys listening to a podcast" or because reading an academic journal can be "quite boring, or can be quite hard" (both quotes from Tutor 1). Tutor 5 spoke of offering reading content at different levels, from sources using more colloquial language to academic

journals so that the content can be processed irrespective of the apprentice's preference. In addition to supporting EDI within the curriculum, this showcases the importance of awareness and empathy as important in the cognitive apprenticeship model.

In summary, the findings highlight not only the importance of having empathy to be aware of inclusive pedagogical practices but offers practically applicable guidance for educators on creating this teaching environment. Embedding empathy in HLDAs fosters self-aware, reflective professionals equipped for today's complex workplace. Empathy underpins self-awareness – crucial for understanding one's emotions and impact in academic and professional contexts. As shown earlier, reflective practice (Schedlitzki, 2019; Urkia-Basterra *et al.*, 2025) supports this development, highlighting how pedagogical approaches in our findings reinforce each other.

These results suggest that an expansion of the cognitive apprenticeship model to also include pillars of good practice focussed on skills development, an emphasis on coaching and mentoring, community building and empathy and awareness (which may include modelling, coaching, reflection, verbalisation and hypothesis formations) (see Dennen and Burner, 2008) supports HLDA student outcomes. This expands the cognitive apprenticeship model to include not only development but a holistic view of what student success means.

Conclusion and recommendations

This study addresses a gap in the literature on pedagogical practices in work-based learning, focussing on HLDA programmes in areas such as medical imaging, management, digital technologies, clinical practice, education, mining and finance. While these programmes are increasingly recognised for integrating academic learning with workplace experience, there remains limited understanding of a cohesive pedagogical framework that educators can use to support positive student outcomes. The literature shows that embedding workplace contexts into curricula is not enough; more deliberate pedagogical strategies are needed to translate this dual context into meaningful learning (Konstantinou and Miller, 2021).

To address this need, we propose a set of integrated recommendations grounded in empirical findings. These are organised around four interrelated themes, each addressing a key challenge in delivering high-quality, work-integrated education. We do not suggest that each theme holds equal weight across all HLDA programmes. Different standards and contexts may favour some approaches over others or present constraints to their application. However, taken together, these themes form a conceptual framework to guide effective and responsive teaching practices in HLDA settings.

(1) Promote holistic skill development

Design learning activities that reflect real workplace contexts, using scenarios, industry challenges and practice-based tasks. Techniques such as modelling, simulation and structured reflection – especially when paired with hypothesis generation – support the development of applied skills. Educators should go beyond technical knowledge to intentionally develop broader capabilities such as leadership, ethical reasoning, teamwork, cultural sensitivity and emotional intelligence. These should be embedded into learning outcomes, assessment criteria and feedback practices to ensure they are not treated as secondary.

(2) Use coaching and mentoring approaches

Adopt coaching strategies in teaching, including open-ended questioning, scaffolding and goal-setting, to foster learner autonomy and self-direction. This requires educators to shift from content delivery to facilitation, which may involve professional development in coaching methods. Mentoring should complement coaching by supporting long-term personal and professional growth, particularly for students navigating complex workplace dynamics. Reflection should be embedded into the curriculum as a core pedagogical tool, assessed and

supported, to promote self-awareness, integrate academic and practical knowledge, and strengthen professional identity formation.

(3) Foster a sense of community

Create inclusive spaces, online and in person and beyond, that encourage collaboration, peer learning and shared purpose. This is especially important for HLDA students, who often balance multiple roles and may feel disconnected from their cohort or institution. Community building helps reduce isolation and increase engagement. Educators should design structured opportunities for interaction, such as group projects and peer mentoring. Institutions can support this through cohort-based activities and social learning platforms.

(4) Demonstrate awareness and empathy

Recognise the diverse and demanding circumstances of HLDA learners by building flexibility into teaching and assessment. This includes offering alternative participation modes, flexible deadlines and understanding attendance challenges. Personalised support can enhance learner confidence. Teaching should be inclusive by design, using varied and accessible methods that reflect the educational, cultural and socio-economic diversity of the cohort. This includes offering content in multiple formats and being sensitive to prior learning experiences. Institutions should adopt a proactive stance on inclusion principles from the outset.

This framework is not a prescriptive model but a conceptual guide that educators can adapt to their disciplinary and institutional contexts. It also provides a foundation for future empirical research into HLDA pedagogy. Crucially, it recognises teaching in HLDA programmes as a relational and situated practice, requiring not only technical expertise but also emotional and social awareness. It moves the conversation beyond curriculum design toward a more holistic understanding of how pedagogical care, responsiveness and alignment can enhance student outcomes.

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