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Constructing meaning across experiences – a qualitative study of Norwegian students’ professional becoming

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Abstract

Work-integrated learning is often promoted as a ‘solution’ for gaps between graduates’ competencies and labour market needs, typically framed as initiatives connecting learning and work-based experiences. Yet these experiences alone do not ‘ensure’ professional becoming, underscoring the need to examine students’ meaning-making. This qualitative study explores how students become professionals focusing on how they interpret, connect, and legitimise experiences within and beyond the university. Grounded in sociocultural perspectives on learning, identity and meaning-making, it asks: *How do students construct meaning for their professional becoming across contexts?* Individual semi-structured interviews with 24 first- and final-year students across four programmes at a Norwegian university were analysed grounded in reflexive thematic analysis. The analysis generated two relevant themes: *Enacting professional competence* and *Seeking recognition and feedback*. The findings suggest that competence becomes meaningful when students can participate in contexts they perceive as authentic and receive confirmation that their participation is legitimate. However, identifying authentic opportunities for participation beyond formal learning seems contingent on students’ reflective capabilities to notice, interpret and articulate their competence. Accordingly, the study contributes to broadening the understanding of WIL as a multidimensional meaning-making phenomenon. Additionally, it bears practical implications for universities as the findings underscore how they play a vital role in not only affording and legitimising students’ authentic participation across different contexts, such as student organisations or work placements, but also support them being able to interpret different kinds of experiences – also outside the realms of the university – as meaningful for their professional becoming.

Keywords: Competence, Learning, Practice, Professional becoming, Recognition, Work-integrated learning

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Introduction

Work-integrated learning (WIL) has become a common response to concerns regarding the gap between higher education (HE) graduates' skills and knowledge and labour market needs. However, recent WIL-research calls for multidimensional perspectives on how learning and professional development are interconnected (Björck & Willermark, 2024; Ferns et al., 2025). These also suggest that researchers and practitioners should take on a broader perspective, understanding WIL as learning phenomenon that can occur across contexts, not just within pre-defined initiatives, with Areskoug Josefsson et al. (2025) stressing that WIL is often reduced to particular formats despite current scholarship pointing to conceptualising WIL beyond the 'traditional' arrangements. The connections between the labour market and HE has traditionally been related to employability and professional identity, underscoring how the 'purpose' of HE can be linked to educating work ready graduates (Jackson & Tomlinson, 2020). Recent work, though, also stress framing professional identity and employability as closely connected and extending beyond instrumental knowledge and certifications to include identification with and belonging to their professional field (Carter, 2021; Sanna et al., 2026).

In line with this broad understanding of WIL and concerns related to students participating in rich experiences without recognising what they are learning, this study focuses on the meaning-making of students across different contexts, not just formal initiatives (Björck & Willermark, 2024; Ferns et al., 2025; Winchester-Seeto & Rowe, 2019). Speaking to debates related to the role of identity construction in professional learning (e.g., Dall'Alba, 2009; Sanna et al., 2026) and broadening conceptualisations of WIL (e.g., Björck & Willermark, 2024; Areskoug Josefsson et al., 2025). The aim of the study is accordingly to explore how students connect, interpret, and legitimise diverse experiences – within and beyond university and workplace contexts – as meaningful for who they are becoming as future professionals. The study is guided by the research question: *How do students construct meaning for their professional becoming across contexts?*

Building on the expanding conceptualisations of WIL and calls for WIL-research anchored in learning theory (e.g., Ferns et al., 2025); the study draws on sociocultural perspectives on learning and identity constructions to offer practical and research-relevant insight into how students come to recognise their competence and find meaning across contexts. Through emphasising students' own accounts, the study contributes to WIL scholarship by turning the attention to the different experiences where they may recognise and legitimise their skills and knowledge in their professional becoming – insight relevant also beyond the scope of WIL to other researchers and practitioners within the HE field.

Theoretical framework

This study is grounded in sociocultural understandings of learning and identity as situated practices of social participation and meaning-making. Learning and identity are positioned as inherently intertwined, and socially and individually constructed. Additionally, this study builds on an understanding of learning as taking place across formal, non-formal, and informal learning contexts (Biesta et al., 2011). While formal learning tends to refer to learning occurring within traditional, established educational institutions, non-formal learning relates to structured learning outside formal institutions, like internships or organised workplace learning. Lastly, informal learning, or everyday learning, refers to the unintentional and unstructured learning opportunities integrated in our everyday lives.

Identity and professional becoming

Students' identities and professional becoming is at the centre of the study, as the context and anchor for how meaning-making is explored. Identity is understood as something people *do* and negotiate in relation to the social world they participate in, not something they statically have (Holland et al., 1998; Wenger, 1998). Thus, it is actively constructed and contested through participation in different contexts, cultures, and interactions. At its core, identity is inseparable from belonging and recognition – from oneself and others – as it is a process of negotiating meaning and membership in response to other people, contexts, and personal beliefs (Gadot & Segev, 2025; Wenger, 1998).

Becoming foregrounds the open-ended nature of identity and appears especially valuable in the context of *students'* professional identities (Dahl, 2020; Dall'Alba, 2009; Sanna et al., 2026). By using the term 'professional becoming' it emphasises the underlying assumption that people are neither made up of distinct, separable identities that they switch between, nor that there is an end point where people statically *are* professionals (Dall'Alba, 2009).

Instead, this highlights that identity is lifelong and context dependent and that different aspects of people's identities are made relevant or useful in different contexts. Students' professional becoming, then, is not only related to their instrumental knowledge and skills, nor the formal certifications they receive upon graduation, it also relates to their identification with, commitment and feelings of belonging to, and recognition by their professional field, as well as their understandings of the culture, norms, and expectations of this profession (Park & Hong, 2022).

Meaning-making

Meaning-making is approached as situated work where students construct if and how an experience is meaningful in relation to, in this context, their professional becoming, learning and competence. Building on Wenger (1998), learning becomes an ongoing interplay between active participation in social practices, and reification – the process of objectifying meaning in artefacts, concepts, stories or routines. Meaning then is not only negotiated in social interactions with others but also in relation to cultural contexts, and what is communicated as valued within the given context (Dahl, 2020; Peach et al., 2025; Wenger, 1998). *Communities of practice* demonstrates the social component of meaning-making and learning as groups share interests and practices, as well as associated expectations and norms for what counts as participation and legitimate, competent membership (Lave & Wenger, 1991; Salo et al., 2024; Wenger, 1998). However, people do not only partake in single, isolated communities of practice, but are constantly moving between such communities across *landscapes of practices* (Salo et al., 2024; Wenger-Trayner & Wenger-Trayner, 2014). As each community has their own norms, expectations and understandings of what counts as competent participation which must be continuously negotiated across the landscape. Wenger-Trayner and Wenger-Trayner (2014) employ *knowledgeability* to capture how people navigate these landscapes, how they relate to practices and communities they are not fully a part of, how they learn what matters where, and how they position themselves in relation to different expectations.

Furthermore, Billett (2001) emphasises how learning opportunities are co-produced through affordances – the activities, interactions, guidance and *access* – and individual engagement, agency, and interpretations. Learning and meaning-making, then, are positioned as *co-participation* dependent on how social practices invite participation and how individuals choose to engage (Bernhard et al., 2026; Billett, 2001). Thus, experiences can become meaningful through active interpretive work by noticing what is expected of them, interpreting what is valued participation in that context, and making sense of feedback or recognition (or the absence of it) as indicators of competent participation. Affordances are, however, neither neutral nor equally distributed, they are shaped by norms and judgement related to trust and readiness, affecting who is granted access (Billett, 2001; Chue & Billett, 2024). Similarly, the act of meaning-making is largely contingent on individual engagement, as people must invest effort, take initiative and connect what happens to their goals or the overarching context.

Situating the study within WIL-literature

Within WIL-research, a recurring assumption is that participation in WIL-related experiences is not by itself a guarantee for learning as students often struggle to interpret and find meaning in what 'counts' as competence, what is valued, and how different experiences may connect to who they are becoming (Areskoug Josefsson et al., 2025; Björck & Willermarck, 2024). Within the sociocultural perspective there is not a distinction between learning and participation per se, thus in this study this claim of experience not being 'enough' relates to articulating and recognising said learning. A substantial amount of research underscores the importance of structured opportunities for reflection to support students' recognising their learning. This becomes especially relevant in light of recent arguments that WIL should be understood as a phenomenon rather than a fixed set of practices as students' professional learning or meaning-making cannot be assumed to automatically follow from participation in activities labelled as WIL (Areskoug Josefsson et al., 2025). Ferns et al. (2025) stress that WIL inherently requires intentional integration across settings, and that the key challenge is supporting students' sensemaking across contexts. Similarly, Winchester-Seeto and Rowe (2019) demonstrate how facilitated debriefing may aid students' reflections and meaning-making, and help them construct relevance from their experiences for learning and professional becoming. However, they also foreground encouraging autonomous, self-directed learners and avoiding over-reliance on instructor-led approaches. Deliberate feedback structures, for instance 'plan-do-review' cycles, have in turn been suggested to strengthen these feedback and reflection opportunities (Peach et al., 2014). Similarly, ePortfolio-based approaches are also frequently framed as ways for students not only to curate and articulate their competencies for employers, but as

reflective processes that help them acknowledge, name, and legitimate their skills and experiences for themselves (Carter, 2021).

Across the literature, authenticity, engagement, reflection, and meaning-making are repeatedly highlighted as conditions for transferable knowledge and professional becoming (Areskoug Josefsson et al., 2025; Jackson & Dean, 2023). Relatedly, the importance of purposeful support before, during, and after WIL-activities, like structured reflection and feedback activities, is continuously emphasised for students' professional learning (Ferns et al., 2025; Winchester-Seeto & Rowe, 2019). Yet feedback and reflection have also been topics of contention within WIL, as students may have different opportunities for receiving feedback and meaningfully reflect over their experiences (Peach et al., 2014).

Methodology

Context

The study is situated at a Norwegian university. Norwegian HE is an egalitarian system, predominantly publicly funded, offering both discipline-based and profession-based programmes, and, of relevance for this study, bachelor's degrees, master's degrees, and five-year integrated master's programmes (Sandsør et al., 2021). Admission to study programmes is regulated through a national system largely based on grade point averages from upper secondary education (Samordna opptak [NUCAS], 2025). The distinction between profession-based programmes leading toward specific occupational titles or formal authorisation, such as teaching or engineering, and disciplinary programmes, like informatics or pedagogy, is very prevalent in the Norwegian HE system. In the context of this study, this seems particularly relevant as the participants from the profession-based programmes have work placement embedded in their degrees, whereas the discipline-programmes do not.

Design and data collection

The study employs a qualitative design with individual semi-structured interviews to explore how students construct meaning for their professional becoming across diverse contexts and experiences, including how they interpret and legitimise these experiences. Semi-structured interviews were chosen as the method for data collection because it enables detailed attention to the participants' reflections and accounts, allowing for a participant-driven design, which appeared fitting for this study and its aims. The interviews were conducted during the autumn semester of 2022 with 24 students across four different programmes at the university: bachelor's in pedagogy, bachelor's in informatics, five-year integrated master's in teacher education, and five-year integrated master's in cybernetics and robotics engineering. These four programmes were chosen to represent the distinction between discipline and profession-based programmes – with the two former representing discipline-based programmes and the latter being profession-based programmes – as well as representing both STEM and humanities and social science (HSS) programmes.

Participants were recruited through faculty who distributed a digital sign-up form and information about the project, creating a largely self-selected sample based on voluntary participation (Sterba & Foster, 2008). The recruitment and sampling strategy was not aimed at statistical representativeness, but rather recruiting students who could offer rich descriptions of experiences across different contexts. The decision to interview first- and final-year students was grounded in an interest to access the early anticipatory accounts of first-year students, as well as the final-year students' retrospective reflections. As the first-year students were interviewed first, within their first couple of weeks at university, the interview guide was slightly adjusted before interviewing final-year students to allow for exploring prevalent topics brought up by the first-year students that were not originally included. For both groups, the interviews asked questions such as “When do you most feel like a [e.g., engineer]?” and “In what ways has your study programme/future profession become relevant in everyday situations?”. Additionally, the final-year students received questions explicitly asking about the role of their student organisations in their university lives due to it being brought up by many of the first-year students.

Interviews lasted 45-130 minutes and were audio-recorded. Though some variation in length, this does not directly translate to interview quality, and all interviews contribute to the findings. The variation can instead be attributed to the participants' engagement with the topic and general talkativeness. The interviews were transcribed verbatim, removing all identifying details to ensure anonymity and confidentiality, and the study follows established ethical guidelines, such as voluntary participation and informed consent, as well as the data being handled in accordance with data protection

guidelines. The project was reviewed and approved by the Norwegian Agency of Shared Services in Education and Research (SIKT).

Participants

The sample consists of 24 students, 12 first-year and 12 final-year students, 11 women and 13 men, from the four mentioned programmes. The participants' ages range from 19 years old to mid-thirties, and they have varied educational and work backgrounds as some have gone directly from upper secondary school into a university degree, some have taken a year (or more) off to work, go to folk high school or complete military service, and some have completed or dropped out of other degrees before enrolling in their current one. Thus, the participants represent many different backgrounds and perspectives that can support the study's multivocality and nuanced discussions (Tracy, 2010).

Analytic method

Interview transcripts were analysed inspired by a reflexive thematic analysis approach, where themes are understood as patterned meanings developed through active interpretive engagement with the data (Braun & Clarke, 2006). Progressing through the phases of familiarisation with the data, coding, theme development, review and refinement, and the final articulation of themes in relation to the research questions, the coding and result presentation have remained primarily inductive and close to the participants' accounts. Although the author conducted the interviews and performed the analysis, the research process was still influenced by the surrounding research environment and colleagues functioning as 'critical friends' offering opportunities for discussions, reflection, and developing the analysis and findings (Costa & Kallick, 1993).

Qualitative interviews can be regarded as dialogic spaces where meaning and accounts are co-constructed between the interviewer and the participants. They also have the potential to allow participants to organise and reflect upon experiences, make connections, and retrospectively acknowledge aspects they were not explicitly aware of previously due to the open nature of questions and encouragement to talk freely (Nardon et al., 2021; Pessoa et al., 2019; Way et al., 2015). Although the interviews were not designed as reflective pedagogical interventions nor reflexive or dialogic interviews, in retrospect after the analysis one can draw parallels between the accounts and reflections in the data material and the aims of such reflective pedagogical interventions. Scholars, however, underscore that dialogic interviews can elicit participant self-reflexivity and facilitate reflection influencing how they think about their experiences – even when this was not pre-intended. In the context of WIL, the interviews can be positioned as a structured opportunity for reflection, which will be elaborated on in the discussion section.

Results

The analysis of the empirical material generated two themes in relation to the research question: How do students construct meaning for their professional becoming across contexts? These themes: *Enacting professional competence* and *Seeking recognition and feedback* are presented in this section with inductive interpretations, while the later discussion section provides an overarching discussion of the findings in relation to existing literature.

Enacting professional competence

The first theme illustrates how students appear to construct meaning for their professional becoming through enacting their distinct disciplinary or professional competence in contexts they feel require it. In turn, acting in ways that they can recognise or articulate as in line with expectations for their future professional roles seem to contribute making their competence and professional becoming recognisable. Throughout the interviews the participants describe professional becoming as something they cannot simply think or read themselves to achieve, but that they make sense of who they are becoming through what they do. Opportunities for such enactment is, however, not limited to formal initiatives, according to the participants, although many of them seemingly hold these experiences in high regard.

One of the first-year cybernetics students says the following with regards to professional enactment within the formal structures of the university:

I like the approach they have in [one subject] where they pack in a lot of theory, but you also get the opportunity to test it out. You get to sit down and make the connections between what you learn in theory and see and test physically how it works. I think that's a great approach, because then you don't feel like you're only doing theoretical stuff, but you feel capable of using it for a purpose. You learn something that can be used. And, especially for my sake, that is really valuable for being an engineer. (Kyb1.2).

This student emphasises how connecting theory to practice is important for his professional becoming and making sense of theory, especially related to seeing that there is a 'purpose' to it. Through participating in course activities enabling him to reify abstract theoretical concepts into something he can use physically, his competence and knowledge appear to be experienced as professionally relevant. Accordingly, he seems to be able to align his performance in these contexts with what is expected of a future engineer, forming a bridge between theory and (professional) practice.

In contrast to this positive perspective by the engineering student, one of the first-year pedagogy students reflects on the formal opportunities for acting out his future professional role within his programme when he explains:

To feel like a pedagogue, I need to be able to prove to myself that I'm worthy of that title. I don't know how I can achieve it [during my degree] but it could be through providing work experience or at least create situations and scenarios that require a pedagogical education to handle professionally. And also receiving guidance and get proof that you are onto something, and that most pedagogues would do the same as you did in a situation. (Ped1.1.)

The student provides a somewhat bleak perspective on the coming three years, as he appears to not think he will be able to recognise himself as a pedagogue by the end of his degree. As the first-year students were interviewed within their first month of their degree, their perspectives may change over the next three years, however, the previous engineering student was also interviewed within his first weeks at the university, and he had already gotten a positive impression of such opportunities within his course. Still, the pedagogy student also acknowledges that *if* he were to get authentic opportunities to act out his pedagogical competence, that may aid him in his professional becoming as it facilitates him feeling worthy of a title and legitimised as a professional.

Formal work placement is not a part of the bachelor's in pedagogy, nor the bachelor's degree in informatics, but it is an inherent aspect of the integrated master's degree in teacher's education. The integrated master's in cybernetics and robotics engineering also has a work experience requirement, although not 'traditional' work placement like the teacher's education. Most participants discussed work placement as either highly influential for their professional becoming – the teacher and engineering students – or something they really missed in their programme – the informatics and pedagogy students. One of the fifth-year teacher students says:

I feel like I've gradually felt [like a teacher] more and more throughout the years of work placement. Like, now in our fifth year, we don't have placement, and that makes me feel really ready for the profession kinda. Now I just have to finish the final subjects and the master's thesis, but everything to do with being a teacher, I've kinda finished. I only have the formalities left. [...] While in work placement I've been able to feel it, rather than read about it. When you stand there in front of a group of pupils and get to experience it first-hand it is so different than reading about it, and that's what shapes you the most as a teacher. However, I would also have liked it if we had more about that professional role in the programme outside work placement as well, especially seeing how many teacher students who choose to not work as a teacher after graduation or drop out after a year or to. If we could get that feeling of being teachers, or future teachers, a bit earlier that might help. (Lek5.2).

As with most of the teacher and engineering students, this participant positions work placement as valuable for her identification as a teacher and for constructing meaning in her experiences. She describes how work placement has provided an opportunity for understanding and enacting the theory she has learned through her courses, as well as for recognising the theory as meaningful for her professional becoming. Telling how once she finished work placement she felt like she had completed everything teacher-related in her degree, she demonstrates how (repeated) meaningful enactment and participation can contribute to professional becoming and feeling competent and secure in their professional role.

Similarly, one of the third-year pedagogy students who does not have any formal work placement his programme reflects upon how his part-time work has shaped him as a pedagogue and contributed to his professional becoming, saying:

To be honest, I don't feel like the programme has given me much in terms of [feeling like a pedagogue]. It is more about the stuff I've done and my personal development over the years. I never saw myself as an instructor. A leader position. That has given me a lot of personal development relevant for seeing myself as a pedagogue. I think the degree has helped along the way and given me a sense of direction in terms of where I'm going, but then I have had to use the essence of everything we've learnt over the years in different situations. [...] I instruct kids in martial arts now and am really happy with that. And it is quite relevant too, 'cause I use a lot of the pedagogy I've learnt when I teach it. (Ped3.3)

This third-year student seems to confirm some of the fears presented by the previously quoted first-year pedagogy student as he claims to have had few meaningful moments related to his professional becoming within the formal realms of his degree. Rather, he points to how his part-time work as a martial arts instructor enabled him to act out and use knowledge and skills he can trace back to his degree. When he says that he never saw himself as a leader previously, it is possible to interpret him as not only experiencing that the part-time work has provided a structure for meaning-making in relation to his degree, but also that he felt secure and confident to take on this position because of the competence acquired through his programme. He does not dismiss the study programme entirely in relation to his professional becoming, but he seems to see it as a foundation for the enactment that he must find opportunities for in other contexts – demonstrating how meaning-making is contingent on students' interpretations and initiative.

Another context repeatedly highlighted as meaningful by the STEM students is the student organisations. These organisations have a prevalent role within the STEM programmes and their associated campus at the university, whereas they are not as prominent within HSS environments. Rather, many of the HSS students express a longing for student organisations that they can be more involved in. One of the fifth-year cybernetics students explains:

[I've learned] by far the most through volunteering. I'd be one tenth of what I am now [in terms of being an engineer], and I'm not much to begin with, if it wasn't for [the organisation] being an arena where I can solve problems, and design software architectures... [...] It's because of part-time work, summer internships, and [the organisation] that I've been able to experience that I'm good enough. [...] When you participate in the volunteer organisations, you always have a channel to not sit by yourself in your dorm and not do anything. If you want to do something, you do something. It can be technical, it can be social, but you get to go somewhere and get to know people who do the same or something similar to you and get a context for what you do and see the bigger picture. (Kyb5.2.)

The student seems to place volunteering in the student organisations as a high-affordance site for enacting his professional role and using his knowledge practically to "see the bigger picture". He shows how partaking in this organisation, which he positions as an authentic 'simulation' of being a professional engineer, makes it possible to recognise that he is "good enough". He also emphasises how students have agency when saying that if you want to do something you can, underscoring how learning is co-produced between affordances and individual engagement. As the HSS students do not have student organisations in their everyday practices to the same degree as the STEM students, this may reflect different opportunities for meaning-making and professional becoming within the university.

Relatedly, a first-year informatics student reflects upon his emotions when *not* getting into any of the committees in the student organisation¹, expanding on the social value of student organisations:

¹The student organisations have different committees where students must apply and are interviewed before some are accepted into a limited amount of available positions within that committee

When I didn't get into any committees in the student organisation, I was kind of sad, but I realised I just had to make the best out of the situation... So I thought I could work really hard on our webtech project 'cause I actually got a real client there, and I thought if I could create a good product for him and impress him, I would always have that project to show for in an interview for instance. Like yes, I didn't get into any committees, but during that time I was able to create this website and this solution and became a paid entrepreneur (Bit1.3)

This quote does not only highlight the perceived social value of student organisations within the STEM programmes, it also emphasises how they seem to hold some professional and academic value as the student says he wanted to invest time and energy into his coursework to have something to 'show for' during the time he was not a part of the student organisation. When faced with exclusion from such an opportunity for community and acting out his disciplinary competence, he appears to have reoriented his focus to another task he deemed authentic and relevant for his professional becoming.

Another fifth-year cybernetics student elaborates on how different types of student organisations serve as opportunities for trying out their professional and disciplinary competencies. He says:

In addition to the normal student organisations, we have technical student organisations at the engineering programmes as well, where we actually work practically to make stuff. That's very fun. A lot of people do it as well, so like all of my friends are a part of these technical organisations, and you get to be a part of a social environment that isn't necessarily focused on partying and drinking but instead building and creating stuff together. In my organisation, we're quite a large group of people with like 70 members, and we have our own offices, and our on social happenings. I feel like I have learnt so much more here... or maybe not more than the programme, but I've learnt a lot just by being here and getting experiences that may be more valuable for working life and my life after graduation compared to what I've gotten in a lot of subjects. (Kyb5.1.)

This, again, reiterates the prominent role of student organisations in STEM students' everyday lives, as the participant says that "all" his friends are a part of these organisations. At the same time, he explains the different types of student organisations where the technical organisations appear to be centred around acting out professional competence and putting theory into practice, whereas other kinds may be focused on social connection. As he likens his learning in the student organisation to what he has learnt during his degree, he seems to position the programme as a formal anchor for his professional becoming, while the student organisation appears more aligned with working life and life post-graduation. Thus, participating in the student organisation makes his professional becoming more intelligible, and meaning-making seems to arise from both practice and belonging in these contexts.

Student organisations evidently take up a lot of the everyday lives of the STEM students partaking in this study, and in the interviews it becomes apparent that the HSS students draw on other kinds of experiences within their everyday lives. This becomes particularly salient with the pedagogy students as they do not have any formal work placement embedded into their degree either. One of the third-year pedagogy student reflects upon several experiences in her daily life where she has been able to act out her role as a pedagogue in informal settings, such as visiting a friend's family in another country and social gatherings with her own extended family:

A lot of times I had to stay home 'cause I got so tired from being the only pedagogue in the house. I get that there may be cultural differences, but every time I went to their house I was shocked at how they just ignored the children and kept up conversations pretending that the kids didn't exist. [...] Like if the children did cartwheels and wanted their parents to watch, they got no response, so they loved me because I actually gave them attention and played along. I'm always the one at family gatherings or birthdays that joins the kids and play with them. [...] I think experience is relative, cause it's not the experiences where I've had a summer job and been at the office from 8-16 everyday, it is every time I meet kids [that make me realise I'm a pedagogue]. Like on my way here today, a little girl stared at me on the bus and looked kinda angry, so I met her gaze and smiled, and before I left the bus, she smiled back. In every interaction or every time I'm in the vicinity of kids something happens inside me that I can't really control, it's just a switch. (Ped3.2)

The participant demonstrates how professional becoming can be recognised in seemingly mundane interactions. Suggesting that the ‘pedagogue in her’ automatically switches on when she is in the presence of children appears to reflect that this identity is embodied and habitual – even if she does not explicitly think about acting in a certain way because she studies pedagogy. Thus, the meaning she constructs from these experiences and the relevance she identifies for her professional becoming does not hinge on external recognition or expectations of what a pedagogue is supposed to do from others but appears dependent on her own retrospective interpretation of how a pedagogue should act. She also implies that formal work experience may not be the end all be all of her professional becoming, saying that although she has had summer jobs, it is through interactions with children in her everyday life that she is able to truly recognise her pedagogical competence.

When students find themselves in contexts and communities that require their professional judgement and they experience that they can partake in a proper manner, it appears to make their competence more recognisable and tangible. Experiences where theory can be ‘tested’, connected to concrete consequences, and used for a purpose is repeatedly underscored as important for experiencing authenticity. However, it is important to note that these competencies are not something the students are always explicitly cognisant of but through interpreting what is asked of them and (re)acting they are able to recognise their professional becoming either in-action or retrospectively.

Seeking recognition and feedback

Where the former theme illustrates how the participants can recognise their professional becoming and construct meaning through enacting their competence in various contexts, this theme foregrounds how that competence seems to become legible through recognition and feedback. Across the interviews, professional becoming is repeatedly argued to be difficult to articulate and become aware of strictly through self-reflection, and the students seem to actively seek out and interpret feedback and recognition as benchmarks for whether they are ‘good enough’ across various contexts. Thus, recognition and feedback become not only encouragement or assessments but also interpretive resources for meaning-making and reconstructing ambiguous experiences into valuable understandings of one’s professional becoming. Many of the participants specifically seem to find formal assessments and feedback from the university insufficient, forcing them to seek alternative reference points.

In this first quote, a first-year pedagogy student shares his reflections related to what the university communicates, or does not communicate, in relation to expectations of students’ professional becoming. He says:

I don’t feel like you get any clear information from the university about what you can do with your degree. Especially when I studied political science², I was completely blank on what I could do with it, even if I would have completed all three years. It’s kind of similar in pedagogy as well, it’s more like you get information in the courses about how that subject will help you in a certain direction. (Ped1.3)

The student appears to put most – if not all – of the responsibility of identifying professional trajectories on the university. He highlights how meaning-making can falter when students experience the institutional contexts as providing little clues to what is expected of them, while he can also be interpreted to undermine the active role that the students have in their own learning and identity constructions. A first-year pedagogy student who has previously completed a degree in social work expands on this lack of clarity from a slightly different angle:

Through the programme, you never get the confirmation you need to get the confidence to know that you have the knowledge you need to enter the workforce. I know I can technically start working as a social worker now, but I don’t have the confidence to think that I know enough. I would love to get the resources to obtain that confidence to think that the knowledge I have acquired is actually good enough to be used for something. (Ped1.2)

Both of these first-year pedagogy students have previously studied something else, where they first changed programmes after a year, and the latter has completed a different degree already. While the first student appears to put most of the responsibility onto the university, the second pedagogy student frames it differently, underscoring how the lack of

²This student had previously began a political science degree but changed to pedagogy in part because of the uncertain professional future

‘confirmation’ has affected her confidence and reflects upon how – or whether or not – the university and the programmes are capable of affording the opportunities she would need to feel competent as a professional. One could interpret this as the student thinking the university is not able to provide this confirmation because she would need to enter the workforce to be able to gain that in action-confidence, but she could also align more with the first-year student arguing that the university offer too little opportunities for feedback and recognition, which in turn leads to her not feeling confident in her professional competence.

A fifth-year cybernetics student elaborates on the feedback offered by the university and his study programme, saying:

I think our perception of what it takes to be an engineer depends on what the university expects from an engineer, and I don’t know if there’s a correct answer to what that is or should be... I mean it would be nice to get insight into what [the university] thinks about it, and sometimes a lecturer may mention something in passing, but it’s all very random and nothing that’s actually a part of our programme to learn what our future professional roles may be. [...] I think a possible improvement for the programme is to give us more feedback throughout the programme on the work we do, ‘cause that has a lot of influence on knowing what is expected of you as an engineering student. Most of our assignments are simply approved/not approved, and to get them approved you only need 40% so you don’t really know how well you’ve done. The same goes for exams, you just get a grade and nothing more. You can ask for an explanation, but most often you get the grade and maybe the grade description. So you get very little feedback through the programme, which I think could have been done better. [...] The entire programme is very individual, and before this final semester we didn’t really have any contact with our professors or got any personal feedback on the work we did. The friends I work with become my learning environment and who I can get feedback from. [...] I would have liked more communication between the students and professors throughout the degree, ‘cause it is something about receiving that recognition from someone or just realising that you are doing a good, or OK, job. (Kyb5.1.)

This quote further reinforces how students, across different programmes, experience institutional assessments and communication as weak signals of their competence and professional becoming. Through approved/not approved assessments, graded exams without explanations, and little contact with professors, the participant appears to be left unsure about both whether his performance and competence align with expectations of a (future) engineer. Although he refutes that there is one single standard for being an engineer, he still seems to long for clearer and more consistent cues and feedback from the programme or university regarding what is expected of his professional competence. In the absence of such cues, he appears to seek out other sources for feedback and recognition, such as his peers.

Similar to the previous theme, work placement and recognition from supervisors is also a recurring topic within this theme as sources for recognition and feedback. One of the fifth-year teacher students says:

What I’ve gotten the most out of is feedback from my work placement supervisors. Those who have... Or, like they haven’t connected theory to practice, but they have showed me how what I did led to the pupils’ responses. And maybe they have asked questions if I think that worked well or if I could have handled it differently. I have had some great supervisors who have been good at both giving credit, as well as not providing a correct way of doing it, but rather made me think and reflect. And then they have given me the opportunity to try stuff out by myself as well which has made me think like OK I’m doing something right here. (Lek5.3)

In this account, the student argues that feedback has been most valuable when it has linked his actions to specific consequences, inviting reflection rather than prescribing a ‘correct’ way of acting. As the supervisor has provided feedback it has guided the teacher student’s participation and enactment in his work placement, highlighting how recognition and feedback not only serve as introspective, interpretive resources but may also affect later actions. Importantly, receiving “credit” is not interpreted as mere praise, but as something the student uses as a socially credible signal that he performed in a way that reads as legitimate in terms of being a teacher. Furthermore, when he says that he has been given opportunities to try things out by himself, this can also be understood as a form of feedback and acknowledgement that he is doing something ‘right’ by being gradually afforded more opportunities for independence and legitimate participation.

Another teacher student, in her first year, demonstrates how recognition and feedback is not limited to professionals or ‘higher-ups’ like supervisors. Recounting an experience she had with her peers, she says:

The other day we had a lecture about theory of knowledge, which I already know a bit about so I understood it quite quickly. And then when we were supposed to work on it, I had to explain it to the people in my group, and it’s quite a big topic so I tried to explain it in a simple way that is easy to wrap your head around and broke it down into pieces. [...] And after doing that they all said that I would make a really good teacher because they actually understood it. It made me feel all warm inside because I was able to get that feeling like I know this and I was able to teach it to someone else, and like I can do this I can become a teacher. (Lek1.1.)

This quote highlights how peers can be an immediate and consequential source of recognition despite not being in positions of authority. The participant paints a dual picture where she both appears to feel validated in her competence because she was able to break down a seemingly complicated theory into understandable pieces, as well as the acknowledgement and positive feedback from others reinforcing her professional identification. Feeling “warm” by receiving the acknowledgment also signals the affective dimension of professional becoming, emphasising how meaning-making can be catalysed by ‘small’ moments of social validation.

A third-year pedagogy student continues this topic of less formal and structured sources for recognition, saying:

My brother recently enrolled in the same degree as me. [...] And I think it was Monday, I helped him write... or I gave him some pointers on an assignment he didn’t get approved. So I read through it and gave him some specific feedback and just talked to him for 40 minutes before I said I think you have it under control just do your best. In that situation I didn’t just feel like a pedagogue but I felt like a really successful big sister because I could step up and explain and use my knowledge from studying to help a little brother that usually wouldn’t ask for help and see that I actually understood what I was trying to say. [...] Seeing as I kinda feel like a pedagogue already, the diploma doesn’t only say who I am, but it is actually confirmation for other people that they can say the same. My overall goal in life is to change the school system. I don’t imagine I will be able to do that without having the papers that show that I know what I’m talking about. (Ped3.2.)

The student demonstrates how recognition and feedback may not be expressed explicitly by others but can be interpreted through others’ (re)actions – i.e., her seeing that her brother understood what she explained signalling that she had acted in a competent, pedagogical manner. She also highlights the interwoven nature of identity as context-dependent and relational, not as distinguishable different identities, as this interaction made her feel competent and acknowledged as a decent pedagogue *and* sister. Later in the quote she also reflects on the dynamic between her internal identification as a pedagogue and how she regards her diploma as a credential that serves as a confirmation for other people, not something that provides her with meaningful feedback in terms of her professional becoming or competence.

Relatedly, a third-year informatics student recounts his experiences of *not* receiving recognition from family and others, and how he has handled these experiences:

Like my dad doesn’t understand anything of what I’ doing. He presents me like ‘here’s my engineer’, and I’m just like ‘I don’t become an engineer’, and he’s like ‘so what do you become then’, and have to say like ‘well I get a bachelor’s degree in informatics’. But what does that mean? I don’t know... I get a bachelor’s degree, what more can I say? So when people ask now, I typically say something like I don’t become anything, but I get a lot of work opportunities, especially to work as a developer, or that I study IT and get a lot of work opportunities depending on what I do after graduation. (Bit 3.2)

The student discusses how he feels explicitly not acknowledged and to some extent interpreting his dad’s or others reactions as negative in light of his professional becoming. The quote foregrounds not the absence of feedback or competence, but rather the difficulty of making professional becoming intelligible for others. Through the account, the student seems certain of what he is not, an engineer, and secure in that a degree in informatics provides him with plenty of work opportunities. Thus, one can argue that his professional competence becomes crystallised in having to correct his father. However, he can

also be interpreted as uncertain of his professional becoming and that this is reinforced through others' misinterpretations of the 'end goal' of his degree, saying that he does not really know what a degree in informatics means.

Similarly, a first-year pedagogy student, discusses her varied experiences with both feeling like her competence is not acknowledged, while also receiving recognition in other settings, she says:

When I meet parents in my part time jobs, I can think that I have a lot of knowledge, but because I'm quite young and don't have children of my own, I feel like they don't really want to listen to me. I don't get the same respect as I would have if I was 40-50 years old even though I might know a lot about children's development, even more than the parents know. [...] There are certain values and ways of behaving that I didn't really... Or I didn't realise that I had them, but other people have made comments about it, and I have kind of picked up along the way that 'oh I think the way I handled that situation was smart'. [...] It happens a bit under the radar I think, that those qualities and skills show up, and you're not really aware of it before someone comments on it or a situation makes you realise that you acted in a certain way because of those qualities. (Ped 1.2)

This account reflects a throughline in the theme, as recognition and feedback are not consistent across contexts, and may contribute in different ways to what becomes meaningful for the participant. The pedagogy student here, who has completed another degree previously, first recounts experiences where her competence and professional abilities were undermined based on other norms and judgement of readiness or (in)competence, i.e., her age or not having children. Later, she reflectson experiences where others have given her feedback that she acted like a pedagogue when she has not been cognisant of acting in a pedagogical way. In the former example, the lack of acknowledgement seems to trigger an internal recognition of her own competence as she – at least internally – tries to disprove this 'negative' interpretation of her. Similarly, the latter example also highlights how recognition and feedback may make previously tacit dispositions and values evident, demonstrating how professional becoming can emerge indirectly through interpretation of different experiences.

It is apparent that the students value feedback that aids them in linking action and consequences, and prompt reflection. Recognition appears to facilitate legitimacy when the students seek out 'proof' that their actions resemble what other professionals would do, as external recognition, and in some settings, formal credentials, provide socially credible confirmation that can communicate competence beyond what their self-assessments are able to. Thus, the participants appear to construct meaning for their professional becoming by actively sourcing recognition and feedback that help them interpret competence and legitimacy across contexts.

Discussion

The study asks how students construct meaning for their professional becoming across contexts, drawing on the established sociocultural theoretical framework and WIL-literature. The findings suggest that students meaning-making and identity constructions are situated, as they negotiate their learning and professional becoming through participation, recognition and interpretation across multiple contexts (Biesta et al., 2011; Dahl, 2020; Holland et al., 1998; Lave & Wenger, 1991; Salo et al., 2024; Wenger, 1998). Thus, professional becoming cannot be reduced to individual meaning-making or cognition, nor confined to formal, or WIL, initiatives. Instead, it is evident that it is constructed through students ongoing meaning-making by connecting experiences, deciphering what counts as competent participation, and making their competence intelligible to themselves and others (Chue & Billett, 2024; Dahl, 2020; Dall'Alba, 2009; Gadot & Segev, 2025; Salo et al., 2024; Wenger-Trayner & Wenger-Trayner, 2014).

The participants repeatedly express a strong desire for opportunities to enact their professional knowledge and skills in authentic experiences – resonating with the emphasis on authenticity and engagement as conditions for connecting HE and working life within WIL-research (Areskoug Josefsson et al., 2025; Jackson & Dean, 2023). Yet the findings also nuance this emphasis by demonstrating how students may experience a wide range of contexts as opportunities for meaningful, authentic participation relevant for their professional becoming, such as student organisations, part-time work, coursework, or everyday interactions – resembling Park and Hong's (2022) findings underscoring the value of informal interactions for students' professional becoming. What appears important is not the label placed on the activity, but rather

whether the students are able to participate in practices where their competence is recognised as legitimate and authentic, and that they are able to connect these experiences to their professional becoming in ways that make the learning meaningful (Areskoug Josefsson et al., 2025; Björck & Willermark, 2024; Gadot & Segev, 2025). Accordingly, learning becomes an interplay between participation and reification, as enactment in legitimate experiences may provide lived experiences for becoming, and meaning-making strengthens when they can objectify experiences through interpretive cues making their competence visible (Dahl, 2020; Park & Hong, 2022; Salo et al., 2024; Wenger, 1998). This becomes particularly evident in the findings when students describe how connecting theory and practice, regardless of the context, becomes meaningful when they can test, use, and see possible consequences, thus demonstrating how active participation and individual engagement can be more influential for professional learning than the formal 'label' placed on the activity (Chue & Billett, 2024).

The results also appear to uncover an uneven distribution of opportunities across programmes with regards to perceived relevant, authentic opportunities for practice. The profession-based programmes in the study, engineering and teaching, both have work placement (in varying forms) embedded as parts of their programme, providing obvious opportunities for legitimate participation in professional practices (Lave & Wenger, 1991; Salo et al., 2024). At the same time STEM students, engineering and informatics, also continuously foreground student organisations as high-affordance communities of practice where participation, belonging and competence are intrinsically interconnected (Wenger, 1998). It is important to note that these communities are not unproblematic, and that they may be exclusionary, which can interrupt equal access into valued opportunities for participation and recognition, demonstrating how the communities shape opportunities for participation and may be both constructive and restrictive (Chue & Billett, 2024). Yet, being excluded from this participation may also prompt reorienting one's attention to other contexts they evaluate as authentic opportunities for participation. In relation to recent research, this may on the one hand relate to Dahl's (2020) 'turning points' or 'moments of rupture' that can redirect, or even strengthen, students' self-understandings of themselves as (future) professionals because it is such a 'dramatic' experience. On the other hand, it can also reflect how some communities are more closed and competitive, which Park and Hong (2022) argue may hinder professional becoming and learning. Still, the HSS students do not have any affordances for such authentic participation likened to the position of the student organisations within the STEM programmes. Especially related to the pedagogy students who do not have work placement as part of their programme either, they appear to seek everyday practices to recognise and 'discover' and enact their professional competence. Thus, it demonstrates how meaning-making is shaped by both the availability of opportunities for participation, as well as the engagement and actively seeking other opportunities when these are not afforded within one's primary environment (Bernhard et al., 2026; Billett, 2001; Chue & Billett, 2024).

The pedagogy students accordingly appear to lean more on implicit feedback through interpreting other people's reaction to them and retrospectively recognising their competence in mundane contexts. In the findings, recognition and feedback function as critical interpretive resources that make competence legible and support meaningful connections between theory, action, and consequences (Areskoug Josefsson et al., 2025; Gadot & Segev, 2025). The students seem to experience professional becoming as difficult to grasp through self-reflection alone, seeking benchmarks and reinforcement from multiple sources – like peers, supervisors, professors, family, and others – to evaluate whether their participation resembles legitimate professional practices (Holland et al., 1998; Wenger, 1998). Several newer studies also present similar findings, with Gadot and Segev (2025) arguing that students need help to interpret various experiences as possibly meaningful, and Areskoug Josefsson et al. (2025) stressing that participation is not the end all be all of professional becoming and learning, as students need to be able to recognise their competencies to interpret different experiences as opportunities for learning. This recognition is not simply instrumental, but affective, as the students' accounts indicate that being recognised as competent strengthens their confidence and sense of belonging to their profession, in addition to recognising their own professional competencies. In the absence of feedback and acknowledgement, especially from the university and their programmes, however, this may intensify uncertainty and ambiguity related to professional becoming and what their degree 'leads to', which in turn can push students to seek alternative sources for recognition (Bernhard, 2026; Billett, 2001; Gadot & Segev, 2025; Salo et al., 2024; Wenger, 1998; Wenger-Trayner & Wenger-Trayner, 2014).

The findings suggest that informal moments of enactment may be difficult to recognise as authentic unless something probes the retrospective interpretation, although research emphasises the value of informal experiences for professional becoming (Park & Hong, 2022). Throughout the interviews students describe acting automatically in-situ and only later recognising these actions as professionally meaningful, thus demonstrating the embodied and habitual enactment

in identity and learning (Dall’Alba, 2009; Gadot & Segev, 2025; Salo et al., 2024; Wenger, 1998). In the context of this study, it is impossible to know if the interviews acted as triggers for such reflection, or whether the students had already interpreted the experiences as professionally meaningful (Areskoug Josefsson et al., 2025; Nardon et al., 2021; Pessoa et al., 2019). In the context of WIL, the interviews may have served as structured opportunities for reflection that made the learning visible (Ferns et al., 2025; Gadot & Segev, 2025; Winchester-Seeto & Rowe, 2019). Nevertheless, the findings demonstrate how professional becoming and competence may be lived and tacit before one is able to articulate it, emphasising the need for supporting students’ capabilities to recognise informal opportunities for learning and evaluate and construct meaning for their professional becoming across contexts.

Lastly, misrecognition or not getting the recognition they believe they ‘deserve’ also appears to shape the participants’ professional becoming. It seems to both deepen the ambiguities of becoming through reinforcing uncertainty about the ‘end goal’ of a degree, especially when institutional cues about their professional becoming and what is expected of them are weak (Dall’Alba, 2009), as well as facilitating a stronger sense of professional becoming through correcting others’ interpretations. This may also be a moment of rupture in terms of their professional self-understandings, which can be largely influential for processes of becoming and identity (Dahl, 2020). Thus, by defending their competence they may construct more explicit narratives of what they are becoming and why it matters in a context (Salo et al., 2024; Wenger, 1998; Wenger-Trayner & Wenger-Trayner, 2014). Accordingly, misrecognition may both interrupt professional becoming, as well as intensify the interpretive work related to sharpening their feelings of professional belonging and recognition of professional competence.

Conclusions

The study sets out to explore how students construct meaning for their professional becoming across context. The analysis shows that this meaning-making unfolds through a dynamic interplay of enactment, recognition and retrospective interpretation. The findings demonstrate how professional becoming is not confined to formal education or structured work experience initiatives, but negotiated across formal, non-formal and informal contexts where students can participate in practices they experience as authentic, and where competence becomes intelligible through both implicit and explicit feedback (Biesta et al., 2011; Lave & Wenger, 1991; Wenger, 1998). The students’ accounts show that opportunities for enactment and recognition are, however, unevenly distributed across programmes and communities, and that institutional communication are often weak signals of what ‘counts’ as legitimate participation and competence – prompting the student to seek alternative sources for recognition. Although this study is limited to one Norwegian university, this does not negate the possible transferability of the findings to other contexts, emphasising how universities should pay attention to the distribution of different types of opportunities, like student organisations and other less formal contexts, for recognised, legitimate, professional participation for students.

Practically, the findings suggest that study programmes and the universities should not only attend to offering opportunities for enactment and practical experience but also facilitate conditions that aid students in connecting theory to practice and develop knowledgeability across contexts (Wenger-Trayner & Wenger-Trayner, 2014; Winchester-Seeto & Rowe, 2019). Theoretically, the study also contributes to the field of WIL by understanding WIL as a multidimensional meaning-making phenomenon where students connect enactment, recognition, and feedback across contexts and experiences. By framing professional becoming as constructed through interpretation of experiences, the article stresses the importance of exploring how these processes unfold beyond formal teaching initiatives. Accordingly, future research could benefit from exploring the less formal opportunities for professional becoming and how HEIs may provide structures for interpreting these experiences into meaningful professional becoming.

Declaration of interests

The authors declare no competing interest.

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