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Reconceptualising teacher engagement in health professions education via emotional narratives and professional identity processes: an AI-prompted qualitative study

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Abstract:

Teacher engagement (TE) in health professions education (HPE) is essential to the quality of education and student outcomes, yet existing conceptualisations predominantly focus on observable behaviours and psychological states. Little is known about how faculty experience and make sense of students' engagement through emotional, narrative, and identity-based processes, or how reflective methods may surface these dimensions. This study explored how such processes shape and sustain TE when faculty respond to AI-generated reflective prompts.

We conducted an inductive qualitative study on 17 HPE faculty members at a single university using semi-structured interviews. AI-generated reflective prompts, including metaphors, narratives, and journey descriptions, were designed to elicit deep reflection on teaching experiences. Interviews were audio-recorded, transcribed, and analysed through a step-wise thematic analysis.

Five major themes emerged. First, emotional dimensions of TE encompassed positive emotions and emotional reciprocity with students, as well as exhaustion and workplace stressors that depleted engagement. Second, narrative and reflective sense-making revealed how faculty conceptualized teaching as a journey. Third, professional identity and meaning in teaching highlighted teaching as central to professional identity, with the mentor-and-guide shaping self-concept, and creating tensions when competing identity demands emerged. Fourth, institutional and structural conditions shaped engagement through workload pressures, administrative burden, limited recognition systems, and organizational constraints that either supported or hindered TE. Fifth, AI-prompted reflection, as a context for engagement, demonstrated that AI

served both as a resource for deeper reflection and as a source of strain, while eliciting insights that traditional methods might not capture.

Together, these themes depicted faculty engagement with students as an iterative process of emotional experience, narrative sense-making, and professional identity work, shaped by institutional and technological contexts. TE in HPE is best understood as a dynamic process integrating emotional experience, narrative reflection, professional identity, and institutional conditions. The reflective interview approaches used in our study offer valuable opportunities for faculty development programs and institutional policies aimed at supporting sustainable TE.

Keywords: *teacher engagement, professional identity, AI-assisted reflection, narrative identity*.

Introduction

The engagement of teachers with their educational role, in short, teacher engagement (TE), is a fundamental aspect of educational quality in Health Professions Education(HPE)(Rathan et al. 2025)(van Bruggen et al. 2025)(Rawat, Rawat, and Sharma 2025) that significantly affects student learning outcomes, faculty retention, and institutional vitality(van den Berg et al. 2017). Faculty who are engaged bring energy, dedication, and creativity to teaching and help foster environments where students develop clinical competence and professional identity (Alexandraki 2025). In an era marked by increasing workload, competing clinical and research demands, and rising concerns about burnout, understanding how faculty sustain engagement in teaching has become a critical priority for HPE

Present conceptualizations of TE are mostly based on behavioural and cognitive frameworks (van den Berg et al. 2017)(Schaufeli et al. 2002)(Rathan et al. 2025). Dominant models conceptualise engagement as a psychological state or behavioural disposition, typically operationalised through the Job Demands-Resources framework and self-report scales like the Utrecht Work Engagement Scale (UWES), which assesses vigour, dedication, and absorption(Schaufeli, Bakker, and Salanova 2006)(Bakker and Demerouti 2017)(van den Berg et al. 2017). While these approaches have generated valuable insights, they emphasise observable indicators and static states, offering a limited understanding of how engagement is experienced, constructed, and sustained over time.

Emerging research in HPE suggests that TE is closely related to emotional experience, narrative sense-making, and professional identity formation(van Lankveld et al. 2021)(Finn and Hafferty 2023)(Haramati, Bonaminio, and Osheroff 2023). Faculty create meaning in their work through stories of success and struggle, manage multiple professional identities across teaching, clinical, and research roles, and participate in emotional control in their interactions with students and institutions(McAdams and McLean 2013)(Weidman 2013). From this perspective, engagement is not simply an internal state, but is shaped by emotion, identity, and context. However, empirical studies that examine these processes directly remain limited.

Methodologically, the limited exploration of the emotional, narrative, and identity-based dimensions of TE may be partly explained by the predominance of survey-based and structured interview approaches that limit participants' responses to predefined categories. Such methods may obscure metaphorical language, internal dialogues, and identity narratives through which faculty articulate their engagement. Reflective and Narrative approaches have been shown to illuminate professional identity formation and emotional experience in HPE (Mann, Gordon, and

MacLeod 2009)(Wald 2015), yet they have rarely been applied to TE studies. Furthermore, recent developments on generative AI offer new possibilities for facilitating reflective enquiry through prompts that invite metaphor, storytelling and self-dialogue, potentially enabling access to dimensions of engagement that remain difficult to capture through conventional techniques(Kasneci et al. 2023). In this study, Generative AI was used to rapidly generate diverse metaphors and story frames that could serve as reflective stimuli during interviews, while the research team retained full control over the conceptual alignment, selection, and ethical appropriateness. This approach is conceptually aligned with reflective interviewing that treats prompts as tools for meaning-making rather than as measurement instruments(Nardon et al. 2025)

The present study addresses these conceptual and methodological gaps by exploring how faculty experience and make sense of TE through emotional, narrative, and identity-based processes, using AI-generated reflection prompts in interviews. We conducted a qualitative study with HPE faculty to examine the following research question: How do emotional, narrative, and identity processes shape and sustain TE when faculty respond to AI-generated reflective prompts in HPE? By integrating emotional, narrative and identity perspectives, this study aims to provide a process-oriented understanding of TE and to inform faculty development and institutional strategies to support sustainable TE in HPE.

Methodology

Study design

In this qualitative study, we captured the opinions and understanding of faculty from HPE about their teaching engagement. We used a questionnaire developed from AI-generated reflective prompts, which were metaphor-based, through semi-structured interviews. Our research was guided by an interpretive qualitative framework, which assumes that social phenomena such as are constructed through individual's experiences and interpretations(Holtzman 2014)(Qu and Dumay 2011). This approach was motivated by 2 main reasons. First, existing research on TE in HPE has largely relied on survey instruments or conventional semi-structured interviews, which may privilege descriptive or role-based accounts over emotionally and narratively grounded experiences. Since we conceptualized engagement as an emotional, narrative, and identity-based process, we looked for a method that could access metaphors, implicit meanings, and internal dialogue.

Secondly, qualitative studies have shown that reflective and metaphor-based interviewing techniques facilitate deeper articulation of lived experience, particularly when exploring professional identity(Bleakley 2005). Hence, to systematically generate metaphorical and narrative findings, we used AI assisted prompt generation in our study. The approach allowed us to enhance reflective elicitation while retaining researcher rigor and standard over alignment, refinement, and ethical oversight.

Participants and recruitment

The study was carried out at the College of Medicine, Gulf Medical University, United Arab Emirates. Purposive sampling technique was used to recruit faculty to ensure variation in discipline, teaching experience, and career stage. The invited faculty members were actively involved in undergraduate teaching. Three additional faculty members participated in the pilot phase and were excluded from the final analysis.

Development and piloting of AI-Generated prompts

We used generative AI (Chat GPT) to create a set of AI-generated prompts as reflection elicitation tools rather than as standardized instruments. The process of prompts development was led by the research team members and was divided into three domains (i. Emotions in teaching, ii Narrative identity and meaning making, iii Professional identity formation (PIF)) that were aligned with our research question. The three domains were used as conceptual anchors to guide AI-assisted prompt generation. For each domain, the research team defined the intended reflective focus and incorporated this into a structured meta-prompt provided to the AI system. The generated prompts were treated as drafts and iteratively reviewed and refined by two researchers to ensure conceptual alignment, clarity, and appropriateness, with AI contributing primarily to variation in phrasing and metaphor.

Using these domains, we prepared a structured meta prompt (provided in Appendix 1) that instructed AI to generate open, non-leading, and non-evaluative prompts designed to elicit a metaphor, story, and self-dialogue about teacher engagement.

To improve the quality of research and to mitigate research bias, two researchers independently reviewed these prompts and further refined them through multiple rounds, removing any prompts that were leading or culturally inappropriate. The final prompt set was therefore human designed in intent and selection, with AI assisting in producing varied phrasing and metaphorical frames.

We piloted the selected prompts on three faculty members. Based on their feedback, the prompts were revised to improve clarity, emotional response and relevance to teaching practice. This process refined the wording and removed ambiguous terms to support the flow of the conversation. An initial set of 11 prompts was developed and piloted, following refinement we retained ten prompts for the final interviews as shown in Table 1.

Table 1: An overview of the selected AI-assisted, metaphor-based prompts used in this qualitative study.

a. **Metaphorical:** 1. "Think of your teaching like a journey. What kind of route are you now on (smooth, winding, bumpy). What keeps you moving forward? 2. If your energy as a teacher is like the weather, how would you describe it for this semester- sunny, stormy, cloudy, rainy or changing day by day? What influences this weather? 3. Imagine your engagement as a plant. What kind of plant is it? What nourishes it, and what threatens its growth?
b. **Narrative and storytelling:** 4. Tell the story of a one-week teacher's experience from the perspective of an object in your classroom (ex, whiteboard, a student notebook etc). what does this object see hear and feel? 5. What would its title be if you had to make a short film that day, week when you were deeply involved with your work? 6. Think of a time in this semester when you felt drained or discouraged. What helped you get through it?
c. **Emotion and professional identity:** 7. How has your motivation to teach changed over time? Has it stayed steady, grown or gone through ups and downs? 8. Write a letter to your "engaged self" to your "tired self". What does one say to the other?

d. **Visual Mapping:** 9. What fuels your engagement as a teacher, what would be at the center and what would be around? 10. Imagine you are explaining your teaching experience to someone new. What 3 words would you use to describe your current life?

Data collection

Two researchers from our team (RR and MN) conducted semi structured interviews via Zoom to enable audiovisual recording. Interviews were conducted using the AI-generated prompts. Participants represented a wide range of academic positions from various disciplines and were actively engaged in undergraduate teaching at the university. They responded verbally and were encouraged to elaborate on their reflections. All interviews were recorded and transcribed for further analysis.

Data analysis

We followed the Braun and Clarke's six-phase thematic analysis approach for our research(Braun and Clarke 2006). Primarily, all the transcripts were anonymized before analysis. The six phases of analysis were then applied, i. Becoming familiar with the data, ii. generating initial codes, iii. searching for themes among the codes, iv. reviewing the themes v. defining and naming them, and vi. writing the final report.

An inductive approach was adopted, with codes and themes generated directly from the data rather than being predetermined. Transcripts were read multiple times to achieve familiarisation, after which meaningful units were coded to capture participants' experiences of teacher engagement. These initial codes were iteratively compared and grouped into categories based on conceptual similarity. Categories were then refined into subthemes and subsequently into overarching themes through ongoing discussion among the research team. This inductive process allowed patterns and meanings to emerge from participants' accounts while maintaining alignment with the study's interpretive framework.

Two researchers (RR and MN) independently coded all transcripts, initially identifying meaning units related to emotional experience, narrative framing, professional identity, institutional context, and reflections prompted by the interview process. Coding was primarily data-driven, informed by sensitizing concepts from the literature on narrative and professional identity formation, such as meaning making, professional role identity, and narrative interpretation of experience(van Lankveld et al. 2021)(Mcadams and McLean 2013) . Through an iterative process, codes were grouped into categories and sub-themes, then organized into themes. Disagreements were resolved through discussion until a consensus was reached.

Our analysis aimed to be emergent. The data was independently coded, and all authors met regularly to discuss the findings, ensure consistency, and agree and verify data interpretations. Rigor was enhanced through independent coding, iterative team discussions, and maintenance of a transparent analytic process. During the analysis, visual thematic diagrams were developed to represent the relationships between themes and subthemes identified through the coding process.

Ethical considerations

Ethical approval was obtained from the institutional research ethics committee (IRB-COM-FAC-18-Sep-2025). All participants provided informed consent before the interviews.

Results

The themes presented below were developed through an iterative analytic process following Braun and Clarke's approach. Interview excerpts were first coded inductively to capture meaningful units of emotional, narrative, and identity-related experiences. These initial codes were then grouped into categories based on conceptual similarity, which were further refined into subthemes and subsequently into overarching themes through iterative discussion among the research team. In total, approximately 140–160 initial codes were generated, which were organised into 15–18 subthemes, resulting in five final themes that represent patterned meanings across the dataset. Representative excerpts are presented to illustrate each theme.

Theme 1: Emotional dimensions of TE

Two sub-themes characterised this dimension: Positive Emotional Experiences and Emotional challenges and fatigue. Faculty described teaching engagement as deeply emotional, shaped by both positive affective rewards and persistent emotional strain. Figure 1 visually summarises the themes and subthemes identified through the thematic analysis.

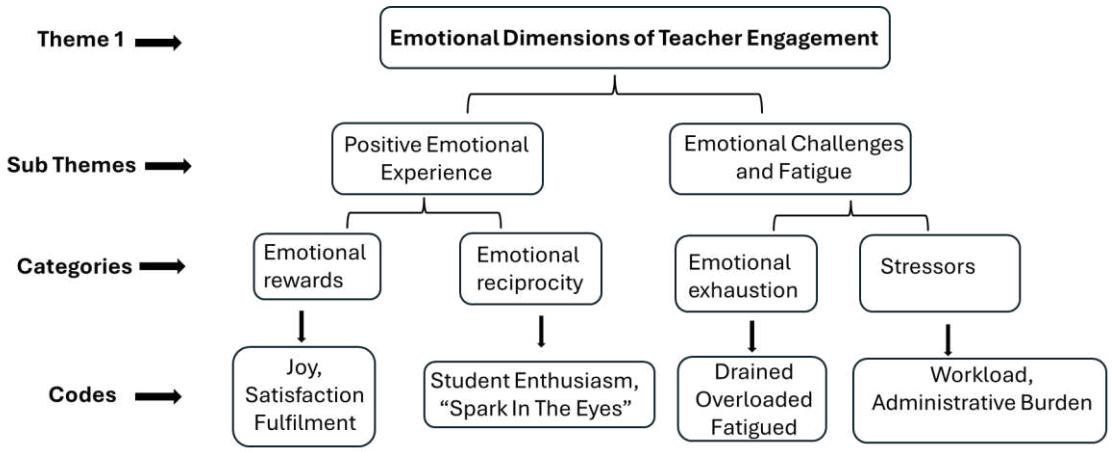


Figure 1. Emotional Dimensions of TE in HPE

1.1 Positive emotional experiences

A. Emotional rewards

Faculty frequently described teaching as a source of joy, satisfaction, and fulfilment. These emotions were not abstract but were closely tied to moments when teaching felt meaningful or successful.

Several faculty spoke of the intrinsic pleasure of teaching itself.

"I love teaching… it gives me satisfaction".(P8)

"Teaching has always been my passion… it's by choice."(P11)

Others described fulfilment emerging when students reached a level of understanding or performance that aligned with the teacher's expectations.

“The satisfaction that the students are able to get to a point that I want them to get to.”(P6)

“At least I’ve made some change in some people’s lives.”(P6)

These comments showed that engagement was experienced as emotionally immersive, with some participants reporting a loss of awareness of external stressors during teaching.

B. Emotional reciprocity

Faculty linked their emotional experience directly to students’ engagement and responses.

“If students are active, I will have a great day.” (P3)

“The spark in their eyes when they understand, that keeps me going.” (P9).

Positive student responses generated energy and affirmation among the participants.

“Students listen… ask questions.” (P8)

“By the end of the class, I should see satisfaction on their face.” (P12).

Difficulty or disengagement from students produced immediate emotional impact:

“When they say it is difficult… I become worried.” (P5)

“If a student says they didn’t understand… not a good feeling… it affects me.” (P12)

1.2: Emotional challenges and fatigue

A. Emotional exhaustion

Along with positive emotions, some of the faculty members also reported feeling drained and fatigued.

“Juggling tasks, physical symptoms like neck pain… peak stress.” (P1)

“Deadlines… only two or three days… it’s affecting.” (P13)

One faculty described moments of near emotional collapse**.**

“Many times… I’m so frustrated, I’m ready to give everything up… then I remind myself… we are strong… we move forward.” (P14)

B. Stressors

Faculty members consistently compared emotional strain to workload, documentation, and time pressure:

“Administrative work… needle in my brain… pressure takes away joy… affects the way you teach.” (P1)

The problem increased with high teaching load:

“Fourteen classes a week… no space to breathe.” (P2)

“Work gets piled up… I have to do things not up to the standard I want.” (P13)

Despite this, many of the faculty members described continuing to engage with students even when exhausted**:**

“When I’m engaged, I give everything… when tired, I just do my duty.” (P9)

Theme 2: Narrative and reflective sense-making of TE

Faculty members described their teaching engagement with students through narrative accounts of their experiences over time, metaphorical framings, and reflective internal dialogue which is visually represented in figure 2. Across interviews, faculties used stories and images (journeys, seasons, plants, objects and letters to self) to describe how engagement shifted over time, how it was experienced on a daily basis and how they spoke to themselves during periods of uncertainty or strain

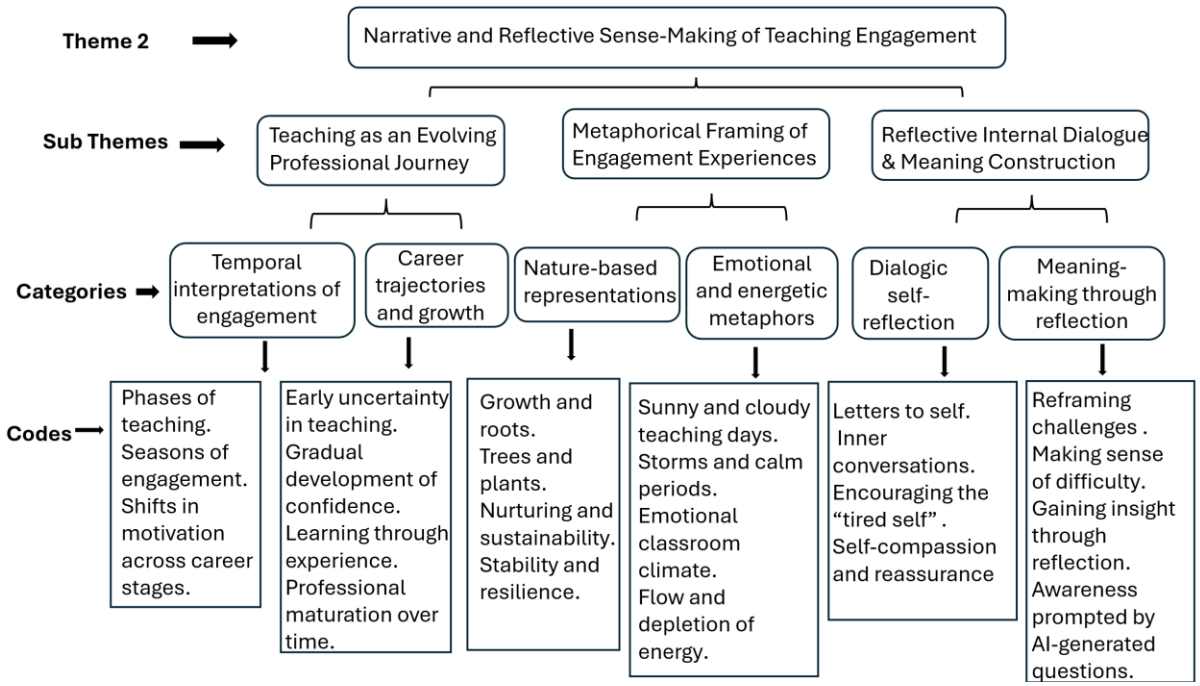


Figure 2. Narrative meaning-making in TE in HPE

2.1 Teaching as an evolving professional journey

A. Temporal interpretations of engagement

Faculty explained their teaching engagement with students in terms of time, referring to shifts across semesters, career stages, and periods of transition. Some of them described engagement as an initial phase of difficulty, which later got stabilized:

"Initially very stormy... do this, do that... I felt I could not do this... after three or four weeks it became sunny." (P4)

These conversations positioned engagement as something that changed, accumulated, and settled over time.

B. Career trajectories and growth

Faculty frequently described their professional teaching engagement as moving through phases of uncertainty, learning, and consolidation.

Several participants described early ambiguity followed by increasing clarity:

"At the beginning, I didn't know if I wanted to be a teacher... it wasn't a clear road... it was a foggy road... then suddenly it became a highway." (P3)

Others portrayed their journey as uneven and shaped by changes in institutional roles.

"It wasn't a smooth journey... bumpy... people changed multiple times... difficulties with directions from superiors... last 3 or 4 were smoother." (P1)

Some described engagement as growing through learning and adaptation:

"My teaching journey went uphill... I learned so many things... improved in many areas." (P12)

For a smaller group, accumulated experience produced a sense of stability.

"It was smooth... no major problems... it runs smoothly... successful." (P7)

"Being teaching for about 30 years now... experience matters... you know how to handle things." (P7).

2.2 Metaphorical framing of engagement experiences

A. Nature-based representations

Faculty used plant and tree metaphors to describe teaching engagement with students.

"I see myself as a banyan tree... deeply rooted." (P7, P8)

"Touch-me-not... if you touch it, it fades away." (P11).

B. Emotional and energetic metaphors

Weather metaphors were widely used to express emotional tone and energy levels. Many faculty members described periods of engagement as balanced and calm. Some of them described it as high energy. On the contrary, pressure and overload were described as storms:

"Definitely stormy... the fall semester tough... There was time constraints and pressure." (P1)

Some responses also showed fluctuations:

"Sometimes sunny... sometimes cloudy when students don't respond." (P9)

"Sunny... students were enthusiastic... cloudy when they say it is difficult... I become worried." (P12)

These metaphors allowed participants to describe engagement as variable, responsive, and emotionally textured.

2.3 Reflective internal dialogue and meaning construction

A. Dialogic self-reflection

Faculty members described how they talked to themselves and offered internal instructions during periods of fatigue, uncertainty or doubt.

"You're just not gonna give up... keep moving forward." (P14)

B. Meaning-making through reflection

Faculty members also used reflections to interpret difficulty, fatigue and persistence.

"This is a temporary period... you will overcome this tiredness." (P7)

"Look at the outcome... remember why you were there." (P16)

"Find what is making me tired... rest... take a break... bounce back." (P12)

These reflections showed how faculty members constructed meaning around engagement, exhaustion and continuation. They described teaching engagement as changing over time, shaped by growth, fluctuation and adaptation and articulated through images of paths, seasons and living systems as well as through internal conversations that support persistence and recalibration.

Theme 3. Professional identity and meaning in teaching

Faculty members described their engagement in teaching as deeply tied to who they are as professionals, how they relate to students, and how they experience recognition and constraints within the institutional context. Three subthemes were captured as shown in figure 3.

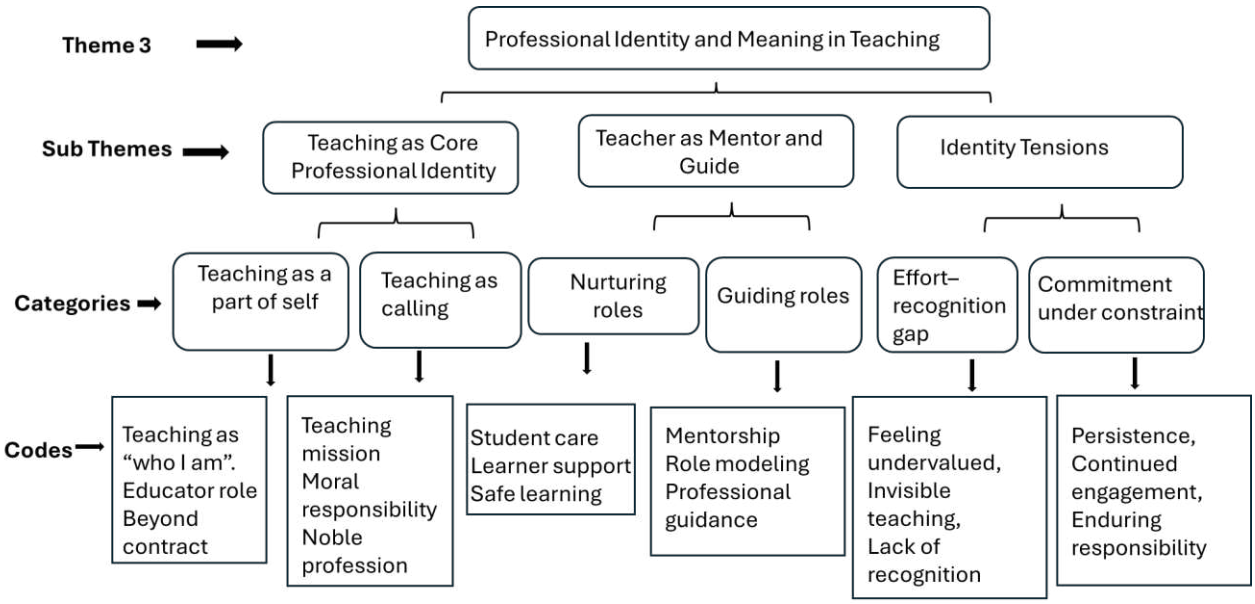


Figure 3. Professional Identity and TE

3.1 Teaching as core professional identity

A. Teaching as a part of self

Faculty members described teaching as deeply embedded in themselves.

"Teaching made me find myself." (P1)

Teaching was framed as extending beyond formal job expectations.

"From my childhood, I've been very passionate about being a teacher." (P10)

B. Teaching as calling

Some of the faculty members described teaching as something they were meant to do. Teaching was often framed as a moral and social responsibility.

"I feel responsible for their future." (P9)

"What I teach should not be artificial… I really believe in it." (P4)

3.2 Teacher as mentor and guide

A. Nurturing roles

Faculty members described caring deeply for students' wellbeing and confidence.

B. Guiding roles

Faculty described themselves as guiding students academically and professionally.

"I see myself as a banyan tree… giving a lot of shadows, support, mentoring, and coaching." (P7, P8)

3.3 Identity tensions

A. Effort–recognition gap

Some faculty members felt that their teaching was not adequately recognised.

"I'm not heard… misunderstood… they cannot see who I really am." (P4)

B. Commitment under constraint

Despite frustration and lack of recognition, participants described continuing to teach.

"Teaching is not negotiable (P14).

Theme 4: Institutional and structural factors shaping engagement

Faculty members described that institutional structures, workload demands and recognition systems are strong factors which shape their engagement. Two sub-themes captured these influences as shown in figure 4.

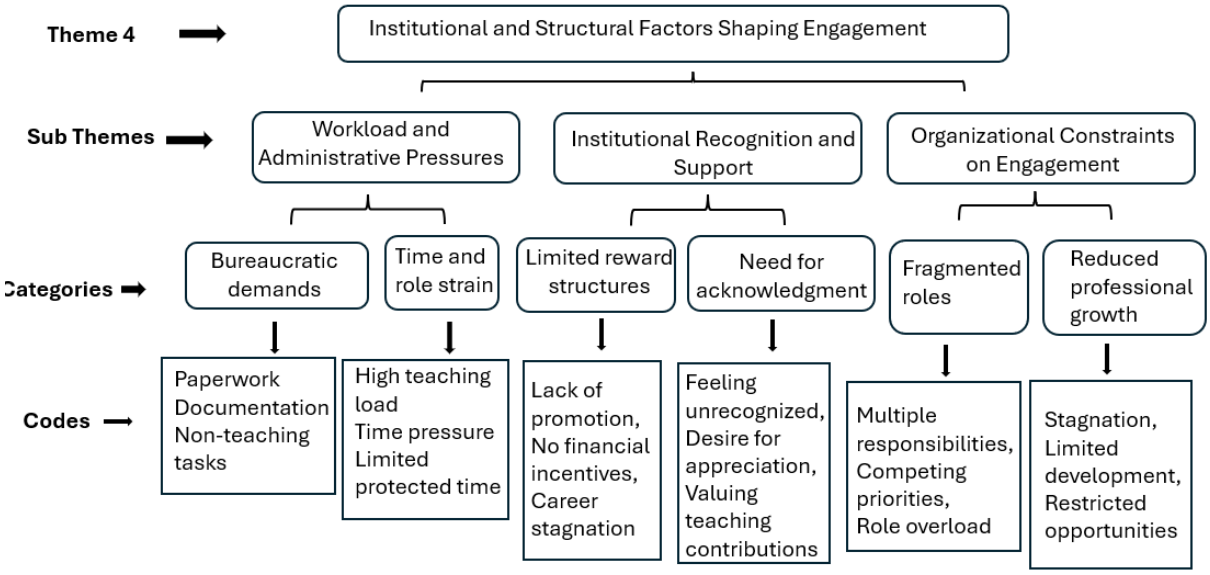


Figure 4: Institutional and structural conditions shaping engagement

4.1 Workload and administrative pressures

A. Bureaucratic demands

Faculty described extensive paperwork, reporting requirements and compliance tasks that consumed time and attention that would otherwise be directed towards teaching.

"Documentation... non-teaching tasks... this takes away from teaching." (P4)

Some of the faculty members felt that documentation was mentally intrusive:

"Paperwork is like a needle in the brain... it takes away the joy of teaching." (P1)

B. Time and role strain

Some participants highlighted that heavy teaching loads and compressed schedules left little time for preparation, reflection and recovery.

"We jumped from four to fourteen classes a week... no space to breathe." (P2)

Some faculty members pointed out that teaching was becoming overshadowed by other institutional demands:

"In some streams it has grown... learning technology... but teaching has reduced to documentation." (P10)

4.2 Institutional recognition and support

A. Limited reward structures

Faculty members felt a lack of promotion, financial incentives, or formal recognition for their teaching efforts.

"Stagnant salaries... no increments... delayed promotions... very demotivating." (P7)

B. Need for acknowledgement

Faculty members expressed a desire for their teaching work to be seen, valued and appreciated.

"I'm not heard... misunderstood... they cannot see who I really am." (P4)

"Doing so much yet moving so little... need incentive... position without recognition." (P1)

4.3 Organizational constraints on engagement

A. Fragmented roles

One faculty member mentioned the situation of being pulled across multiple unrelated responsibilities.

"A blackberry tree... roots don't go deep... spread across many menial tasks." (P1)

B. Reduced professional growth

Institutional conditions were described as limiting opportunities for growth and development.

"Copy-paste routines... no new elevation." (P1)

In addition to these core engagement processes, faculty members described how AI-prompted reflection functioned as a contextual and methodological influence shaping emotional articulation, narrative construction, and identity reflection

Theme 5: AI-Prompted reflection as a context for engagement.

Faculty described educational technologies as both supportive tools and sources of uncertainty, while also serving as a context for facilitated reflection. Three sub-themes as shown in figure 5 captured this experience: Technology as a Resource for Teaching Engagement, Technology-Related Strain and Uncertainty, and AI-Prompted Reflective Practice

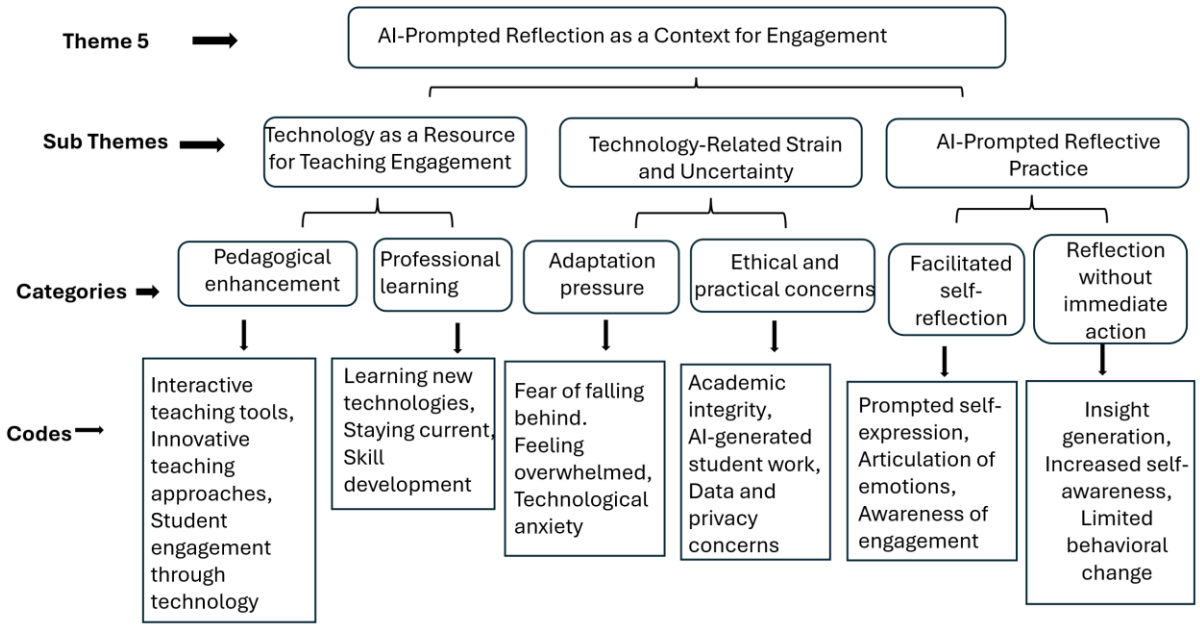


Figure 5. AI-prompted reflection in TE

5.1 Technology as a resource for teaching engagement

A. Pedagogical enhancement

Faculty members described digital tools and AI as enhancing clarity, interaction and student engagement.

"The smart board... multimedia... AI... ChatGPT... audio-visual presentation is the best mode." (P15)

Some described technology as enabling richer explanation and connection.

B. Professional learning

Technology was also described as a means of staying current and developing professionally.

"Climbing vines... always upgrading... reaching the most updated literature." (P5)

Faculty members described integrating new tools into their teaching as a part of the ongoing professional growth.

5.2 Technology-related strain and uncertainty

A. Adaptation pressure

Some faculty members reported feeling overwhelmed by the pace of technological change.

"The pace of AI....sometimes I feel stuck." (P7)

B. Ethical and practical concerns

Faculty members also expressed concerns about academic integrity and data protection.

"We have to be careful what students submit... what is real." (P4)

5.3: AI-Prompted reflective practice

A. Facilitated self-reflection

Faculty described AI-generated prompts as enabling them to combine feelings of fatigue and motivation.

"You're just not gonna give up... move forward." (P14)

"This is a temporary period... it will pass." (P7)

B. Reflection without immediate action

Several participants described gaining increased awareness through reflection, although this did not always translate into immediate changes in their behaviour

"Re-evaluate... find what is making me tired... then bounce back." (P12)

Faculty members described AI-generated prompts and educational technologies as simultaneously enabling engagement, introducing new pressures and creating a reflective space in which emotions, fatigue and motivation could be articulated. These tools functioned both as pedagogical resources and as mirrors through which faculty examine their own engagement.

4.0 Discussion

Our study elucidated TE in HPE as a dynamic process shaped by emotional experiences, narrative meaning-making, professional identity, and institutional conditions. Faculty described engagement as emotionally driven, sustained through reciprocal interactions with students, and challenged by exhaustion and workload pressures. Engagement was further constructed through narrative interpretations of teaching as an evolving journey, supported by reflective internal dialogue. It was closely tied to professional identity, with teaching experienced as a core and meaningful role, yet often constrained by limited recognition and competing demands. Institutional structures, including administrative burden and workload, played a significant role in enabling or constraining engagement. Additionally, AI-generated reflective prompts facilitated deeper articulation of experiences, highlighting their potential as tools for reflective inquiry.

Our findings highlight that emotions play a central role in sustaining engagement. Faculty described engagement as closely linked to emotional exchanges with students, where moments of curiosity, understanding, or enthusiasm from learners replenished teachers' motivation. In educational contexts, emotions have been shown to shape commitment, resilience, and professional endurance (Zembylas, 2003; Day & Gu, 2009). This interpretation also adds depth to the literature related to burnout in academic medicine (Dyrbye et al 2022; Shah et al 2018). Although the amount of work matters, our results suggest that relational quality and institutional recognition have an equal impact on emotional exhaustion. Engagement and exhaustion may coexist, mediated by the availability of emotional replenishment. Therefore, engagement may be conceptualized as a relational energy system rather than an individual trait.

Faculty made sense of their engagement through narrative framing. Metaphors such as journeys, weather, and growth allowed the faculty to interpret fluctuations in their work experience over time. According to the Narrative identity theory, people use stories to create coherence across time(Mcadams and McLean 2013), and thus faculty may benefit from narrative framing to integrate periods of stress or uncertainty into a broader sense of professional development. In our study, narrative appeared to function as a stabilising mechanism that allowed teachers to maintain continuity of meaning despite changing institutional pressures. These findings extend existing literature on professional identity formation in HPE (van Lankveld et al. 2021)(Haramati, Bonaminio, and Osheroff 2023) by demonstrating how narrative reflection can sustain engagement through meaning-making.

Engagement appeared most sustainable when teaching aligned with the faculty's professional identity. Faculty often said that teaching was essential to their professional identities, and conflicts arose when institutional structures did not recognise or support this role. According to the identity-based motivation theory behaviour is sustained when it is consistent with fundamental self-meanings(Oyserman 2009). Our results indicate that engagement may depend less on workload quantity and more on identity congruence within institutional environments. This emphasizes the importance of organisational cultures that recognise and support educational work within academic medicine.

Through administrative requirements, recognition programs, and workload pressures, institutional factors further shaped engagement. Faculties explained how documentation burdens and fragmented responsibilities reduced time available for meaningful teaching interactions. These results are consistent with earlier studies, which show that institutional structures, recognition, and autonomy are key resources for sustaining engagement(van den Berg et al. 2017)(Duke et al. 2020). Engagement, therefore, appears to emerge not only from individual motivation but also from institutional ecologies that signal the value of teaching.

Methodologically, this study also explored the use of AI-assisted reflective prompting within qualitative interviewing. We used AI as a stimulation tool to produce metaphor-based and narrative prompts consistent with interpretivist interviewing traditions rather than presenting it as a better question generator(Kvale and Brinkmann 2009). These prompts appeared to facilitate reflective articulation of emotional and identity-related experiences. However, this method may potentially influence how faculty frame their answers, and without a comparator interview guide we are unable to determine whether similar insights would have emerged through conventional interviewing. Future methodological research should therefore examine how AI-assisted prompt generation influences qualitative data elicitation.

Overall, this study contributes to the literature by positioning TE as an emotionally mediated, narratively constructed, and identity-based process embedded within institutional contexts. By shifting the focus from assessing engagement to understanding how it is experienced and sustained, our findings provide a more process-oriented perspective that may guide faculty development and institutional policies meant to encourage meaningful engagement in HPE.

Implications for practice: faculty development and institutional support

Conceptually, these findings suggest that interventions to enhance TE should attend not only to workload and resources but also to emotional processing, narrative coherence and identity alignment. Engagement may be more effectively supported through reflective, relational and identity affirming practices rather than solely through motivational or behavioural interventions.

Firstly, faculty development initiatives should move beyond a narrow focus on pedagogical skills to clearly address the emotional dimensions of teaching. Creating structured spaces for reflection, peer dialogue, and emotional processing may help faculty manage emotional labour and sustain engagement over time.

Second, the narrative and identity dimensions of teaching should be addressed in faculty development. Chances for narrative reflection and metaphor-based discussion may help faculty to refine their teaching identities, supporting professional coherence and resilience. This is consistent with evidence that reflective and narrative approaches play an important role in professional identity formation(Kiran et al. 2023)(Haramati, Bonaminio, and Osheroff 2023).

Third, universities should look at the structural factors that shape engagement. To support meaningful engagement, the administrative burdens, protect time for teaching, and ensure realistic workload expectations should be reduced. Furthermore, the development of distinct educational career pathways with transparent reward structures may strengthen the validity of teaching as a valued academic role(Elmberger et al. 2019)(Finn and Hafferty 2023).

Fourth, recognition of teaching should be strengthened through promotion criteria, performance evaluation, and leadership practices that explicitly value educational contributions. Consistent with previous studies, recognition from peers and leaders emerged as a critical resource for sustaining engagement and professional commitment(Van Den Berg et al. 2018).

Limitations of the study

This study was conducted with faculties from a single institution, which may limit the transferability of the findings to other institutional, disciplinary, or regional contexts. Future studies across diverse settings are needed. Second, the use of AI-generated reflective prompts, while innovative, precludes comparison with traditional interview methods. Without a comparator, we cannot determine whether AI-based prompts elicited substantively different or

richer data. Third, the cross-sectional design captured engagement at a single point in time. Given that engagement emerged as dynamic and evolving, longitudinal studies are needed to examine developmental trajectories across career stages. Fourth, as with all qualitative research, analysis was interpretive. Although independent coding, consensus procedures, and audit trails enhanced trustworthiness, alternative analytic frameworks may have generated different interpretations. Finally, the study focused exclusively on faculty perspectives and did not include students or institutional leaders.

Future research directions

Future research should focus on studying TE longitudinally to understand how it improves across different career stages and institutional transitions. Comparative studies are needed to assess faculty development approaches that talk about the emotional, identity, and structural dimensions of engagement, and to evaluate the effectiveness of technology-enhanced interventions. Future studies should also examine how institutional policies, workload models, and reward structures shape engagement across contexts and disciplines within HPE. Also studies linking TE to student learning and professional outcomes would strengthen the evidence base. Finally, a systematic investigation of AI-supported qualitative methods is needed to clarify their value, limitations, and ethical implications for educational research.

Conclusion

This study focuses on the complex, multidimensional nature of TE in HPE. Our findings reveal that TE encompasses emotional investment, narrative sense-making, professional identity work, and is profoundly shaped by institutional contexts. Faculty members who engage deeply in teaching experience both the joys of emotional reciprocity with students and the challenges of emotional exhaustion and institutional constraints. They construct coherent narratives about their teaching journeys, using metaphors and reflective dialogue to make sense of their roles. Teaching is central to their professional identities, yet they navigate tensions between teaching and other professional demands. Institutional conditions, including workload, recognition, and organizational culture, fundamentally enable or constrain their engagement.

These findings have important implications for faculty development and institutional support. Efforts to enhance TE must address not only pedagogical skills but also emotional dimensions, identity formation, and structural conditions. Faculty development should create spaces for narrative reflection, emotional processing, and community building. Institutions must provide meaningful recognition for teaching, reduce administrative burdens, and create cultures that genuinely value educational work. Our methodological innovation of using AI-generated reflective prompts underpins new possibilities for qualitative research in HPE.

Appendix 1: Meta-prompt used for AI generation

Generate a set of open-ended reflective interview prompts for faculty from health professions to explore their engagement in teaching. The prompts should align with the following domains:

(1) emotional experiences in teaching,

(2) narrative meaning-making of teaching experiences, and

(3) professional identity formation.

The prompts should:

- *be non-leading and non-evaluative*

- *encourage deep reflection rather than factual responses*
- *incorporate metaphorical or imaginative elements (e.g., journey, weather, objects, letters to self)*
- *promote storytelling, temporal reflection, and internal dialogue*
- *be appropriate for use in qualitative interviews*

Avoid yes/no questions and avoid directing participants toward positive or negative responses. Focus on eliciting rich, descriptive accounts of teaching engagement.

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Declarations

Ethical approval Ethical approval was obtained from the institutional research ethics committee (IRB-COM-FAC-18-Sep-2025).

Consent to participate Informed consent was obtained from all individual participants included in the study.

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Competing interests The authors declare no competing interests.

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