Orientation Towards a Master's Degree: International Students' Perceptions of Successful Engagement in Higher Education

Signe Siklander. University of Oulu, signe.siklander@oulu.fi
Sanna Brauer, University of Oulu, sanna.brauer@oulu.fi
Pavithiran Thangaperumal, University of Oulu,
pavithiran.thangaperumal@student.oulu.fi

Abstract

Engagement significantly impacts the effectiveness of strategies in both education and employment. Engagement is closely linked to well-being, persistence, and goal orientation. To raise and maintain interest, motivation and engagement during academics is thus crucial. This study explores international university students' (n=25) experiences and perceptions related to the concept of engagement at the outset of a two-year master's programme in Finland. Phenomenography was used as an analytical approach to comprehend participants' different techniques to experience and understand the concept of engagement. The results suggest practical insights for supporting students' cognitive and collaborative engagement in international study programmes, guiding educators in the creation of more supportive materials, curricula, interactions, and practices from the beginning of students' academic journeys.

Keywords: agency, engagement, collaboration, higher education, phenomenography, teaching, multiculturalism

Introduction

Students' achievements and rapid employment outcomes are recognised societal demands and desired qualities placed on educational institutions (Brauer, 2021; Rhodes, 2012). However, learning objectives are often implicit, and students are expected to decipher these objectives independently, which can hinder their academic progress (Rhodes, 2012). This lack of clarity has been confirmed to diminish the efficiency of higher education, HE (Brauer, 2021). Engagement in the studies is an important piece of effective strategies in both education and employment (Jeong & Hmelo-Silver, 2016; Trowler et al., 2022). Moreover, engagement is strongly associated with well-being, persistence, and goal orientation (Fredricks et al., 2016), which are important for completing studies within the prescribed timeframe. Our aim as educators is to support every student in completing their degree and gaining the competences necessary for their future professional careers. Developing and maintaining interest, motivation, and engagement (Renninger & Bachrach, 2015) in their academic journey is therefore crucial.

The focus in learning should be placed on students and their activities, like collaboration, engagement with meaningful topics, and feedback, particularly from their peers (Siklander et al., 2017). In addition, it is possible to foster engagement by maintaining positive learning conditions, building a learning community, giving timely and consistent feedback, and leveraging the right technologies to deliver the right content (Chakraborty & Nafukho, 2014). Ideal engagement can occur from a dynamic interplay of emotions, engagement, and learning, forming a reciprocal spiral (Kahu et al., 2015). It is possible to enhance a reciprocal spiral through the course's pedagogical design. The physical and emotional constraints together, such as exhaustion, hunger, and feelings of stress due to time limitations, can significantly decrease the level of engagement (Siklander & Harmoinen, 2021).

Previous studies (Korkealehto et al., 2021; Salmela-Aro et al., 2016) have shown positive and negative impacts on engagement during the learning process in HE. For example, Siklander et al. (2017) identified collaboration with group members, particularly in challenging or problem-solving situations as the main element for triggering students' interests and enhancing their engagement. In addition, activities

that foster success through novel experiences can raise engagement (Siklander & Harmoinen, 2021). Other studies (Järvelä et al., 2016) have proved that collaborative engagement has a direct effect on one's knowledge construction and the outcomes of collaboration (Nix & Zacharia, 2014). Student-engaging activities and ownership in their learning can lead to increased learning, improved academic performance, and better preparation for further studies (Conley & French, 2014).

Many studies address the engagement of teachers (Kangas et al., 2017), but only a few studies examine students' perspectives regarding their own engagement (Fredricks et al., 2016; Lawton & Taylor, 2020). The student-centred approach highlights that students' own actions have a great impact on their engagement (Korkealehto et al., 2021). However, teachers' understanding of students' engagement refers mostly to cognitive engagement (Pietarinen et al., 2014) and student learning outcomes. Students' perspectives and experiences are considered noteworthy when designing curricula and teaching and learning processes in HE (Brauer, 2021), particularly how they comprehend the concept of engagement and the factors they identify as relevant for maintaining interest, motivation, and engagement. This trend towards integrating students' perspectives into pedagogical design may result in more inclusive and efficient methods, ultimately improving the overall standard of higher education.

Collaborative Engagement in the Higher Education (HE) Context

The mechanisms contributing to the students' engagement have not yet been clearly articulated, and the concept of engagement is used differently in various contexts (Kahu, 2013; Redmond et al., 2018). The definition of engagement as framed by Christenson et al. (2012) can be interpreted as students' active involvement or participation in formal and informal activities within HE and their commitment to related goals and objectives. This involvement can focus on particular content areas and broader cognitive and affective experiences, as well as social and academic behaviours (Fredricks et al., 2004). We understand engagement as a situational and malleable process that varies in intensity. It can evolve over time (Järvelä et al., 2016) and manifest through cycles of engagement and disengagement (Kahu et al., 2020). Engagement emerges from the interplay between context, contents, interpersonal

interactions between people and students, and students' previous and current experiences. It is essential to adopt an affordances perspective to understand engagement effectively (Jeong & Hmelo-Silver, 2016; Martin & Borup, 2022) by asking how students' interactions with institutional environments (including the curriculum courses, people, knowledge, technologies, materials, etc.) create opportunities for engagement? The realisation of affordances depends on both the characteristics of the students and the institutional environment. Engagement is not merely an individual trait but should be seen as embedded in the wider social and cultural contexts (Kahu, 2013).

When defining engagement in the context of HE, we connect it with triggers, which mean factors or moments that can raise students' interests, maintain them, and reactivate them, thereby fostering motivation and engagement (Renninger & Bachrach, 2015). Engagement always has antecedents and measurable consequences that should be acknowledged (Kahu, 2013). Triggers are interpreted as antecedents, predispositions, or catalysts of engagement (Renninger & Bachrach, 2015). Students' values, global motives, intentions, and reasons for engagement were found to be significant triggers (Tani et al., 2021). Kahu et al. (Kahu & Nelson, 2018; Kahu et al., 2020) have also identified four significant triggers for engagement, namely self-efficacy, emotions, belonging, and well-being, factors that increase or decrease students' engagement. These triggers can act independently, but often they work synergistically and influence each other. Since engaging in learning can take place in both formal and informal contexts, the model of the engagement interface was created (Trowler et al., 2022). This model demonstrates how strategies for increasing student participation may shape educators' work. For instance, strengthening the "belonging pathway" necessitates fostering peer relationships, building staff-student rapport, and nurturing congruent values. Recognising the multifaceted, context-based nature of engagement and focussing on its triggers allows higher education institutions to better construct educational strategies that promote students' academic and personal development.

Although engagement can be understood from different perspectives, e.g., behavioural, emotional, and cognitive (Fredricks et al., 2004), developing a nuanced

understanding of one element without denying the existence of others is recommended (Kahu, 2013). As education for the master's degree stresses collaborative learning and collaborative problem-solving in methods and contents, we find it necessary to approach engagement from a collaborative perspective, referred to as collaborative engagement. Collaborative learning can be approached through three different perspectives (Dukumuremyi & Siklander, 2018). The first, emotional perspective, means togetherness, fostering a feeling of belonging within a group. The second, cooperation, refers to group work characterised by the division of tasks and roles during learning activities. The aim of the third and most advanced perspective, collaborative learning, is to construct new knowledge, deepen understanding of complex topics, or develop novel innovative skills together.

Successful collaborative learning requires an understanding of the kinds of interactions and activities that facilitate deeper learning (Dillenbourg et al., 2009; Vuopala et al., 2015). Dillenbourg et al. (2009) identified three main categories of interaction that facilitate learning: explanation, mutual regulation, and argumentation or negotiation. Interestingly, factors like communication, interaction, presence, collaboration, and community have been found effective in triggering engagement (Martin & Borup, 2022). Feeling success in collaboration can motivate students to collaborate with their peers more intensively (Siklander et al., 2017). Collaboration is both an antecedent and a consequence of engaging collaboratively (Kahu, 2013).

The aforementioned activities are mainly based on verbal and bodily collaborative interactions. Jeong and Hmelo-Silver (2016) point out practical activities that can promote successful collaboration and lead to engagement, such as encouraging students to share resources or establishing a joint task. By employing thoughtful design strategies, providing resources and integrating useful technologies, teachers can help students engage mutually. Identifying concrete indicators of mutual engagement in collaborative settings is difficult; however, the group flow (Sawyer, 2015) can be a sign of mutual engagement and successful collaborative performance. Mutual engagement includes synchronised and reciprocal interactions with others who share the same task, strategies, and goals for the task at hand with the same environment and tools. Students' possibilities for shared annotation or interpretation mechanisms and awareness of group identity can further increase mutual engagement

(Bryann-Kinns & Hamilton, 2009). These factors enable participants to synchronise their efforts and perceptions, producing a stronger feeling of collaboration and a shared goal. By creating these environments strategically, educators may help students achieve meaningful and sustainable collaborative engagement.

Methodologies

Aim and Research Question

This qualitative research aimed to analyse and describe how international master's degree students comprehend the concept and phenomenon of engagement, with a particular focus on collaborative engagement and the factors affecting it. To achieve this, the following research question was set:

> *"What are the variations of perceptions of the concept of engagement among international HE students?"*

The aim of the overarching research question was to allow for a comprehensive exploration of descriptions reflecting students' awareness of the different forms and aspects of engagement based on their lived experiences.

Context and Participants

This study was conducted within the context of Finnish HE, stressing the international full-time master's degree programme (120 ECTS credits). Graduates of this programme will be qualified to work in scientific, practical and administrative roles in different organisations, either as employees or entrepreneurs. Through this curriculum, students will become experts in understanding how people learn, designing productive learning processes and environments, and coping with changes and challenges in education, such as the global COVID-19 pandemic and its effects on teaching and learning. Their job roles can vary from researchers, educators and coordinators to human resource experts, project leaders, learning designers, educational consultants and online learning experts. During their education, students are able to work on real-life problems collaboratively with researchers, teachers, institutions and businesses.

Participants (n=25) included first-year international master's degree students who were newcomers to their studies. Internationalisation in the HE institutions is common globally, as well as in Finland. The number of international degree programmes as well as the number of international students in HE, is remarkable. The international student enrolment in Finnish HE institutions has been increasing in recent years. A total of 31,913 international students in 2019 has increased to 47,271 in the year 2024 (Institute of International Education, 2024). However, it was found that international students in Finland face challenges similar to international students in other countries, including non-English speaking countries. A "two-way integration" process is recommended, emphasising reciprocal process to enhance international students' comprehensive experiences that will establish the Finnish HE institutions "as culturally aware institutions that promote diversity" while paving the way for international students to integrate into the host country and adapt to their new environment (Lu & Everson Härkälä, 2024).

The data collection was conducted as a part of the course Orientation (5 credits, The European Credit Transfer and Accumulation System ECTS) over two sessions conducted a year apart. The interview groups (n=2) consisted of 12–13 people at a time. The participants identified themselves as male (n=9), female (n=15) and other (n=1) by gender. Participants' ages ranged from 22 to 39 years. From their educational background, they represented several fields at the bachelor's degree level, such as linguistics, engineering and business. In addition, many of them had gained experience in the educational field. Their places of origin covered Oceania, Europe, Asia and Africa, and they represented 18 different nationalities. Students in this research were not seen as objects of the research but rather as active, appreciated, and knowledgeable contributors with cross-cultural perspectives (Page & Chahboun, 2019). Only 22% of the participants did not have any previous work experience, while 44% of the respondents had worked as a teacher for 1–5 years, and 13% had almost 6–10 years of experience in the educational sector.

Data Collection

The experience-focused group interviews (Brinkmann, 2013) were conducted with two groups of new master's students, each session lasting between 80 and 90 minutes. They were informed about the purpose of the study, which aimed to raise awareness

of the importance of synchronising their perspectives with the research and knowledge base of the learning sciences domain.

Kumar and Herger (2013) recommend using on-site interviews for data collection. A specific research infrastructure specifically designed for multidisciplinary studies on learning and interaction within the human sciences was used for the data collection in this study. The versatile technical setting allowed transformation based on the researchers' needs and requirements, thereby fostering a conducive environment for exploring learning and interaction. The students were seated in a circular arrangement so that everyone could see each other, and the 360-degree video camera was positioned in the middle. Although participants were informed and gave their consent to be recorded, the facility was friendly enough that the participants could participate naturally, as they would in an authentic collaborative learning space.

The original interview protocol was designed by the two authors responsible for conducting the interviews. They were present throughout interviews and were prepared to encourage participants to express their feelings, perceptions and thoughts. The thematically-guided semi-structured questions in the phenomenographic interviews (Stenfors-Hayes et al., 2013), enabled the interviewees to sustain the debate.

Sample interview questions from the study:

1) How do you understand collaborative engagement?
2) How engagement actualises in formal/informal and collaborative contexts?
3) How can teachers, learning designs and methods, and environments support students' engagement?

Phenomenography can be considered useful in facilitating the development of students' understanding of difficult and abstract scientific concepts (Han & Ellis, 2019). The aim was to encourage comprehensive narratives to capture "the most complete and accurate understanding of the phenomenon" (Russell & Gregory, 2003, p. 37). Follow-up or reformulated questions were asked when necessary to uncover underlying meanings and insights (Stenfors-Hayes et al., 2013). Everyone had the

opportunity to contribute, ensuring a smooth and inclusive discussion. Video recordings from both sources were transcribed. The pseudonymised data reveal only contextually relevant elements that will help to describe and understand the context of the study (Cortazzi & Jin, 2006). The transcription comprised 36 pages for analysis. All data were anonymised before analysis, ensuring the permanent deletion of the identifiable information upon completion of the study.

Phases in Phenomenography Analysis

The study employed a phenomenographic approach, which investigates individual variations in experiencing or understanding a given phenomenon (Åkerlind, 2005; Marton, 1981; Marton & Booth, 1997).

The first phase of the phenomenography protocol focused on identifying and describing students' diverse beliefs and perceptions of the concept of engagement. Transcripts were considered as a whole and were read repeatedly to obtain and identify the underlying statements and intentions expressed in them. Phenomenography is grounded on the premise that there are a limited number of ways of experiencing a particular phenomenon and that these are logically interconnected (Marton, 1986). No predetermined categories or theories were used at this stage of the qualitative, inductive analysis. However, it is not possible to ignore the researchers' previous experiences with the subject of the research.

The practice of "bracketing" has been conscientiously applied throughout the analysis stage. Bracketing here refers to the deliberate suspension of researchers' own beliefs and presuppositions while analysing the data. Though the earliest expert proponents of phenomenography neither advocate nor oppose the practice of bracketing, bracketing has notably become a point of criticism within phenomenographic literature (Stolz, 2020). However, recent phenomenographers have begun to acknowledge the "practice of bracketing" during data analysis by retaining their own beliefs, preconceptions and judgements away while analysing the data (Beligatamulla, 2021; Kettunen & Tynjälä, 2018; Marton & Booth, 1997, p. 120 - 121).

A preliminary set of descriptive categories was developed by comparing and contrasting the identified similarities and differences in expressed meanings. The

second phase of the analysis sought to delineate the logical relationships among the various categories. The primary unit of analysis was a succinct expression of words or a concise quote that seized the meaning of an individual experience related to the phenomenon. The purpose was to reveal different ways of understanding the concept by comparing the different aspects related to the concept of engagement (Åkerlind, 2005; Marton & Booth, 1997). Logical relationships within and between categories were identified to represent the nuanced ways of experiencing and conceptualising investigated phenomena (Åkerlind, 2005).

The final phase of the analysis focused on ensuring that the categories of description met the three quality criteria defined by Marton and Booth (1997):

1. Distinctiveness – Each category captures a unique perception of the phenomenon.
2. Hierarchical Structure – A clear, hierarchical relationship is evident among the categories in their delivery.
3. Limited Scope – The limited number of categories represents a manageable yet comprehensive range of variations.

The final outcome was developed after collective moderation and rigorous discussions by the researchers through an ongoing comparison of descriptive categories (Kettunen & Tynjälä, 2018). Collaboration was emphasised to ensure the validity of the analysis and to bolster trust in the research findings. In addition to researcher triangulation, we could have provided the participants with an option to review the researchers' interpretations in order to ascertain whether our interpretations accurately reflected students' diverse perspectives and experiences (Russell & Gregory, 2003).

According to Åkerlind (2024), "pre-existing assumptions and misinterpretations of phenomenography can limit and distort scholars' understandings of research findings and the implications of those findings". The aim of phenomenographic research is to gain an understanding of the phenomenon as experienced by individuals, distinguishing it from other forms of research that often focus on the phenomenon itself (Brauer et al., 2023). Åkerlind (2024) delineates five dimensions of phenomenography

that scholars engaged in the field of higher education must be cognizant of in order to optimise the value they will derive from phenomenographic studies. These dimensions are as follows: (a) the distinctiveness of the method; (b) the focus on variation in individuals' understandings of a phenomenon; (c) the focus on structural relationships between the different understandings; (d) the pedagogical utility of the findings; and (e) the implications for everyday thinking and practices. With these observations in mind, we have described our findings through an iterative process utilising unique features of a phenomenographic method instead of adhering to the linear sequences applied in other qualitative methods. This sophisticated methodology enabled us to adequately capture and communicate the complexities and diversity of the participants' diverse experiences and perspectives.

Results

Results of the Phenomenography Protocol

The interpretations of peoples' varied experiences of the same phenomena (Pang, 2003, p. 145) align with the theory of variation. Data analysis revealed five distinct categories describing qualitative variations in students' collective beliefs and perceptions regarding the phenomenon in question (Marton, 1986). The primary outcome of the phenomenographic analysis is a structured set of logically related categories (Table 1) of description reflecting *1) Orientation, 2) Emotional Factors, 3) Actions, 4) Cognitive Engagement and 5) Collaborative Engagement*.

Table 1

International master's degree students' different ways of perceiving the concept and phenomenon of engagement

Dimensions of Variation	**CATEGORIES**				
	Orientation	**Emotional Factors**	**Actions**	**Cognitive Engagement**	**Collaborative Engagement**
Attraction	Avoidance	Perseverance	Empowerment	Metacognition	Passion

Achievement Goals	Informative	Relevant	Versatile	Progressive	Purposeful Intentions
Forms of Triggers	Methodological	Expectations of Success	Curiosity	Conflictive	Committed
Social Behaviours	Situational	Active	Proactive	Self-regulative	Self-reflective
Type of Learning Community	Equal	Positive	Disruptive	Motivational	Optimistic
Agency	Interested	Attentive	Understanding	Mutually Regulated	Innovative

Description of the Categories

Category I: Orientation

In the first category, engagement was primarily experienced as a means of *avoidance of negative outcomes*. Students here expressed that the potential negative impact of not engaging in their studies is what attracts them to participate in the learning activities. The *informative* content of the degree course sets achievement goals for students. The information (content) that students gain (in the form of the curriculum, course descriptions and verbal descriptions) is experienced as instrumental to their future careers when they return to their respective home countries.

In the orientation phase, students experienced the teacher's *methodological* approaches as key triggers of their engagement. Students noted that they became motivated when their teachers used dialogical approaches and methods, encouraging their active participation and interaction.

> *"And as a student, I would like to have those professors who know what they are talking of. So that really helps me, and that really motivates me in cognitive sense, what I can do (--)"*

> *"The teachers are very open to answering all of our questions and a lot of them are like 'Do you have any questions? (--) open (--) very, welcoming."*

Social behaviours in the Orientation category were perceived as *situational,* and engagement was understood as a student's interaction with immediate external factors (i.e., learning materials).

Students experienced the learning community as one of equality. However, the orientation was predominantly focused on the teacher-student relationship. The students and teachers were seen as engaged in a non-hierarchical relationship, fostering a collaborative environment conducive to active learning:

> *"Although … (--), they have a holiday and they still kept reading my, reading and also sending me email, like whoa, I was surprised that I was, oh I got the email, the first email from the professors from Finland. That's really not common in my country. Your lecturer, your teacher has higher, much higher level than you."*

In the first category, agency and proactivity were identified as students' initial efforts familiarise themselves with the master's degree programme. Students made the effort to contact former students who have graduated to gather information about the degree programme that they are *interested* in enrolling in, reflecting a self-driven approach to understanding the curriculum and making informed decisions about their academic progress.

Category II: Emotional factors

In the second category, participants experienced that the orientation towards engagement requires *perseverance* as an emotional driver that allows students to focus on long-term achievement, especially those who have moved in from a different country:

"… with the sacrifices we have been making, because it's not, I don't know about others but it's very, sacrificing a lot, I am sacrificing a lot of things to stay here for next two years. I have a family, I have kids, and friends and job and so many things…"

"… going on and there are so many challenges back home in my country. I am also facing some of the challenges which quite most of the time are solved, but still, there are some tiny challenges. So, it, (--) okay (-) you are challenging yourself but ultimately you will have a long-term success. It's a short-term pain, it's not a pain by the way, but if we calculate, if it is a pain, short term, but the long-term gain after all we are getting a degree"

They experienced the achievement of goals as *relevant* and motivational for their future prospects. The *expectations of success* were considered a crucial trigger for engagement. In this context, the role of the teacher was also viewed as pivotal:

"That helps a lot in engagement also, (--) that the teacher, they set you up for success (--) they want you to succeed and you see that also."

The social behaviours experienced reflected *active* involvement, and the students considered reciprocity as an important emotional influence on their engagement. Students felt *positive* about their learning community and recognised several factors affecting their emotional experiences:

"I am having good company of people, on campus and off campus as well, the technology which I have, and some other stuff like teachers are quite friendly."

In terms of agency, students felt *attentive* towards the cognitive and emotional processes they were engaged in and sought to better understand themselves and their evolving academic journey.

Category III: Actions

The third category describes students' experiences characterised by *empowerment*, *versatile* achievement goals, and *curiosity* that pushes them forward. Experienced

social behaviours in this category reflect resilient *proactivity* – "taking an active role in whatever you're doing." The students brought up both positive and negative connotations regarding engagement in the learning community as *disruptive* actions.

> *"If it doesn't happen, then at least for me it's gonna be very easy to disengage 'cause (you're not going to get anything from the group work)"*

> *"Actually it's different from the way they do it in the other departments.' And well it was really inspiring, even if I don't know I still want to engage myself to know. So, I use that as a motivation."*

> *"For instance, I'll go to, this is kind of uncommon for at least at my university, I'll go to, office hours for a professor, and I'll ask a question not about the course but just about something related to it and then they're like so surprised that like oh this person actually has curiosity"*

> *"But in my case, for example, I have done these kind of, many qualitative research courses in different places, but then, when I came to the education side, I thought that I knew everything and then, (I was like) 'What? I didn't know this. They actually do this."*

Students experienced that, through actions, they began to develop a clearer *understanding* of their agency and of processing both cognitive and emotional experiences either by themselves or as group members.

Category IV: Cognitive engagement

The fourth category describes students' perceptions regarding cognitive engagement. Students were attracted to the relaxed learning atmosphere, which allowed them to critically analyse their own learning and thinking processes, leading them to incorporate a surprisingly wide range of field-specific vocabulary to illustrate their own awareness and lived experiences. This *metacognition* was also related to students' personal achievement goals, emphasising *progressive* challenges resulting in skills and knowledge required for their future careers:

“in my case, for example, I have done these kind of, many qualitative research courses in different places, but then, when I came to the education side, I thought that I knew everything and then, (I was like) 'What? I didn't know this. They actually do this. Actually, it’s different from the way they do it in the other departments.’ And well it was really, inspiring, even if I don’t know I still want to engage myself to know. So, I use that as a motivation.”

"I think that for example in my case, and maybe most of us we (have used in certain), knowledge that we haven't really thought about so much that they would be used in some of the courses here (in the degree programme). For example, when we had to use, (-) (Google), we have always I’ve always seen it but I’ve never really thought that I can use it until (-) attending (-) course and it somehow, (--) that oh actually there are so many things that I have learned but I haven’t really thought that I could use them. So, in that way, I’m improving on my already acquired skills (--),

In addition to metacognition from the previous learning experience, one of the participants highlighted previous experiences from their working life:

"I think it's working together to a common goal. In my experience, I think, how to work together, how to be open to the other people's ideas, and to understand your role in the group. So, to answer the question how do I see my competence I see, (normally) because I have working quite a lot with a team when I was working, so I figure out my role in that team is kind of like a facilitator."

Social cognitive conflict arises when students hold different views on certain beliefs or issues. However, *conflictive* situations were seen as important for learning, as “you also learn because you rethink.” Apart from social–cognitive conflicts, students demonstrated *self-regulation* in an environment where they feel there are opportunities for personal growth, which is an expected *social behaviour.* Students experience *motivational* “push” in the learning community, which encourages them to move forward. They mentioned that when their peers engaged in a particular task, it motivated them to work on the same task even though they were not motivated at the

beginning.

> *“me the motivation, push me to do task (--) (group work). So, when I work with people, sometimes, if I don't want to do it, but my friends, they want to do it, okay I'm in. That's the motivation I have from the (group work)".*

Besides this, it was also highlighted that past experiences can be conflictive with the current (Finnish) education system that they are experiencing, creating tension between old and new learning approaches:

> *“You know the past experience we have similar education system (non-Finnish) in our countries so I’m like okay the teacher is really pushing me to learn and I’m like all right I have to learn this, then I learn this and next month I forget it obviously, but I knew I learned at that time. But right now, I’m not so stressed, so it’s difficult to measure if I’m learning. Because I’m used to another system, but now I’m getting used to this one. So, this is how you learn and I’m trying to figure it out.”*

In terms of agency, students experience that their thinking and perceptions regarding the content of the course are *mutually regulated* by their senior peers.

Category V: Collaborative engagement

The fifth category describes students’ perceptions of collaborative engagement. Students experience *attraction* towards their learning due to *passion*. It is their passion in their current learning environment alongside their peers and the challenges they face in their home countries that engage them in problem-solving here in Finland. Students perceive that these purposeful intentions enable them to achieve their future goals. On the other hand, when group members are *committed*, deeper collaborative engagement is triggered.

> *“I should be on time, I should complete this task because it’s not only my effort but the effort of three different people (whom I’m answerable to)”.*

"I think all of us are pretty engaged because everyone shows up on time –"

"There'll definitely be tough times and things you don't enjoy much but you just, (-) and get through it if that's the case".

Furthermore, the students experienced *self-reflective* behaviours that enhanced collaborative engagement. When they focus on their own behaviours and actions, they tend to contribute more effectively to group efforts.

"I think really it means taking an active role in whatever you're doing whether it's (--) project-based learning scenarios, just engaging with the material, engaging with others, and engaging with yourself, self-reflection and evaluating your own performance (within it)".

Students felt *optimistic* about the type of learning community that enhances their collaborative engagement. They experienced positive outcomes whenever they encountered a crisis. They believe that help will always be available when needed.

"if I need any help I just need to just, (I'm damn sure) I just send one email, and the very next day, whatever the issue I have in my mind regarding research, regarding (--) whatever, it will be solved within 24 hours. So this is the thing, (--) relaxed and motivated to, move forward."

Finally, students felt motivated by being *innovative* in co-constructing the learning content with the university.

"*(The) degree of customisation that's available through the programme is another factor that I think really lends itself to engagement and having a good attitude towards it."*

"I will, instead of mastery I will say it's much more about (joy than) you already know and master that thing. Because it also has to be challenging, if you already master it, how much challenge will (it) be?"

> *"Engagement I think, it's simply when you suddenly notice that two hours passed and you forgot to have lunch because you were doing something. That is engagement for me."*

Students described themselves as being "lucky" to have an opportunity to design a personal study plan. Students' ability to provide constructive input to the instructions/pedagogical decisions reflects their solid academic agency.

Relationships Between the Categories

In category 1, where engagement was experienced as *Orientation,* students' interaction with the immediate external factors was emphasised. The activation of these factors dependent on informative resources, materials and interactions, is situational by nature. Teachers' pedagogical expertise and low hierarchy play a key role in motivating students towards their future challenges. In the second category, engagement was perceived through *Emotional factors* that reflected positive potential and expectations of success in general. Students' attentive emotions were engaged in *Actions* in category 3, where a variety of social behaviours and both positive and negative connotations regarding engagement emerged within the learning community. The subsequent stage (category 4) offers to support different aspects of *Cognitive Engagement*. As students analysed their own learning and thinking processes, they integrated a vocabulary of learning theories into their discourse for the first time. At this point, their agency had grown from a stage of curiosity to a mutually regulated learning and complex thinking process in which peers and seniors are valued collaborators. In the final, fifth category, students focus on behaviours enhancing *collaborative engagement*. Despite the individuality of their intentions and future goals, the learning community shares a passion for learning. Students are committed to each other and encourage reciprocity in their actions.

Discussion

The aim of this research was to analyse and describe *"What are the variations of*

perceptions of the concept of engagement among HE students." The phenomenographic results presented in this study reveal students' different beliefs and perceptions regarding the concept of engagement in the orientation phase of an international master's degree programme. Based on the results, it is important to discuss what *successful engagement* means in pedagogical practices. Successful engagement comprises different perspectives on engagement, which are discussed as being the meaning of the curriculum, learning environment and atmosphere, time and space to think and reflect, and collaboration as a key source of engagement.

The starting point for successful engagement is the carefully planned and enacted *curriculum*, which clearly shows its role in guiding students through content, methods, goals and their relevance in career and working life. Students' perspective in this study also showed the curriculum's meaning as the learning material itself. Newcomers were familiar with the theoretical concepts and could elaborate on them, showing their agency (Kahu & Nelson, 2018; Kahu et al., 2020). Without knowing the curriculum thoroughly, this level of understanding would rarely be possible. The curriculum and students' future career goals inspired many of them to contact former students and look for additional information from different websites and podcasts, thereby demonstrating agency in their behaviour. Earlier studies (Siklander et al., 2017; Skinner & Pitzer, 2012) underscore the importance of content and methods in particular courses, but the students' approaches to curricula in terms of engaging in educational programmes are not adequately taken into account in research.

Another factor for successful engagement is the learning *environment and atmosphere,* which is in line with earlier studies (Martin & Borup, 2022). The students come from different countries and cultures, and educators in HE in Finland create circumstances that support engagement, particularly in emotional and collaborative terms. Feeling togetherness (Dillenbourg et al., 2009; Dukumuremyi & Siklander, 2018; Vuopala et al., 2015), belonging, experiencing the learning community as equal and relaxed, and finding no hierarchies between students and teachers are fundamental for collaborative and emotional engagement. Our results corroborate earlier studies (Kahu & Nelson, 2018; Kahu et al., 2020) about the role of emotions and belonging in engagement. As curiosity is one of the driving forces for pushing students forward and allowing them agency, pedagogical practices should nurture it.

The third element in successful engagement asks educators to design learning processes and environments that provide students with *opportunities time and space to think and reflect*. In other words, it is crucial to consider the kind of affordances they can perceive from the resources and how they can use perceived affordances (Bryann-Kinns & Hamilton, 2009; Jeong & Hmelo-Silver, 2016; Martin & Borup, 2022). Forming perceptions of their own learning, analysing it and enjoying thinking processes alone or with peers is crucial for engagement. This is in line with previous results by Edwards and D'Arcy (2004; Edwards, 2007) suggesting that agency appears when students are producers of experiences, and they are allowed to transform events and processes that evolve in learning situations. In these situations, they experience other people and networks as a joint resource (Edwards, 2007; Edwards & D'Arcy, 2004). Therefore, we suggest building and maintaining meaningful interactions with other people and the environment and encouraging students to actively seek issues that are pertinent to their learning and expertise development. These can be, for instance, collaboration, deeper understanding of the learning sciences, solving authentic problems, new learning experiences and acquiring new skills. Students' ability to use scientific concepts, vocabulary, expert language, and theoretical concepts and approaches should be encouraged from the first day of master's studies (Brauer, 2021).

Teamwork and collaboration drive efficient engagement and offer opportunities to enhance individual improvement towards the desired competences valued by employers (Brauer, 2021). Moreover, effective strategies for both education and employment strategies require explicit objectives to succeed (Rhodes, 2012). Collaborative engagement, which is also interpreted as social engagement, is strongly reflected in students' experiences as descriptions of commitment to each other. Rich interactions encourage reciprocity in actions and promote shared understanding. Dillenbourg et al. (2009) and Vuopala et al. (2015) emphasise that successful collaborative learning requires an understanding of the kinds of interactions and activities that can enhance learning. Our results confirm these findings, indicating that students perceive those purposeful intentions as essential for enabling them to achieve their future goals. International students respect different views but aim their learning actions towards a mutually regulated process and structure. Collaborative

engagement in our study context describes how students intensively achieve together the three perspectives (explanation, argumentation/negotiation and mutual regulation) of interactive collaboration that facilitates learning (Dillenbourg et al., 2009). As the key features for mutual engagement in collaborative settings are difficult to identify (Sawyer, 2015), our results suggest considering commitment as a key trigger for collaborative engagement that encourages the group to perform at its top level of ability. Group flow then becomes a sign of mutual engagement and successful performance (Sawyer, 2015).

Conclusions

The purpose of this study was to examine how HE students perceive the concept of engagement. Phenomenography fits within the interpretivism paradigm, which acknowledges that there are diverse and varying interpretations of reality (Stenfors-Hayes et al., 2013). Based on the analysis conveyed it can be concluded that there are multiple aspects to consider regarding the agency and engagement of international master's students. As newcomers, these students encounter a spectrum of emotions when entering a new programme in an unfamiliar country. A variety of social behaviours and both positive and negative connotations regarding engagement in the learning community can emerge. Some of these perceptions reflect their past experiences while others showcase a variety of expectations towards the future. However, the students' own experiences and goals are rarely acknowledged (Page & Chahboun, 2019). The results of this study suggest the importance of activating situational factors by providing informative resources, materials and interactions. Although the teacher's high standards of pedagogical competence are valued, they are expected to be easily approachable and accessible. Low hierarchy plays a key role in encouraging students towards their future challenges.

Supporting the different stages of cognitive and collaborative engagement allows students to analyse their own learning and thinking processes. To succeed in this, support must be provided in terms of applying the learning theories to tell the story of experience and to transform it into purposeful intentions and, finally, actions. Thus, students' agency grows from a stage of initial interest to a mutually regulated learning and complex thinking process in which peers and seniors are recognised as valued

collaborators. When the learning community shares the same passion for learning, students commit to each other and encourage reciprocity in their actions.

Ethical Considerations, Limitations, and Implications

We have endeavoured to meet Finnish research excellence criteria for research involving human participants, following the EU's GDPR and the ethical guidelines set forth by the Finnish National Board on Research Integrity TENK (2023) regarding autonomy, self-determination and privacy. Participation in this study was voluntary for the students, and they could withdraw from the study at any time.

The number of participants (*n*=25) was considered appropriate considering previous phenomenographic studies suggesting that 10 to 15 participants is usually sufficient for capturing necessary variation (Åkerlind, 2008; Trigwell, 2000). The sample was not completely random as we selected the respondents to represent a specific group of master's students. We cannot exclude the possibility that our findings could be an expression of other latent or unexplored dimensions related to the phenomenon.

Phenomenographic studies help to improve practice by exploring variations in participants' experiences of the phenomenon in question, revealed by the dimensions of variation, which highlight the differences between the different conceptions (Åkerlind, 2005; Kettunen & Tynjälä, 2018). The results of this study cannot be generalised, but they are transferable to similar situations and people or applicable to another context. For instance, any international programmes in the university should adopt the "two-way integration" process where international students are given opportunities to adapt to Finland while also accommodating the international students' needs. Any student who is relocating from their country of origin to a new environment will likely experience a range of emotions similar to those reported by participants in this study. These emotions may include feelings of commitment, sacrifice, and struggle, yet they will also likely maintain a hopeful and determined outlook for the future.

The non-generalizability yet easy transference of the results of qualitative research prompt us to argue that these results can describe, explain and predict international

HE students' engagements in Finland. The results of this study can also be employed to develop curricula and design teaching and learning processes and related environments within international educational contexts. Further research is needed to determine whether the results apply solely to international students or extend to all students at the master's level.

References

Åkerlind, G. S. (2005). Variation and commonality in phenomenographic research methods. *Higher Education Research & Development,* 24(4), 321–334. https://doi.org/10.1080/07294360500284672

Åkerlind, G. S. (2008). Growing and developing as a university researcher. *Higher Education, 55*(2), 241–254. https://doi.org/10.1007/s10734-007-9052-x

Åkerlind, G. S. (2024). Why should I be interested in phenomenographic research? Variation in views of phenomenography amongst higher education scholars. *Higher Education*. https://doi.org/10.1007/s10734-024-01270-6

Beligatamulla, G. (2021). Design thinking pedagogy: A phenomenographic study of design thinking teaching in the higher education context (Doctoral dissertation, Queensland University of Technology). https://eprints.qut.edu.au/210530/1/Gnanaharsha%20Beligatamulla_Beligatamulle%20Kankanamlage_Thesis.pdf

Brinkmann S. (2013). *Qualitative Interviewing*. New York: Oxford University Press

Brauer, S. (2021). Towards competence-oriented higher education: a systematic literature review of the different perspectives on successful exit profiles. *Education + Training*, *63*(9), 1376–1390. https://doi.org/10.1108/ET-07-2020-0216.

Brauer, S., Kettunen, J., Levy, A., Merenmies, J., & Kulmala, P. (2023). The educational paradigm shift—a phenomenographic study of medical teachers' experiences of practices. *BMC Medical Education*, 23(1). https://doi.org/10.1186/s12909-023-04013-w19

Chakraborty, M., & Nafukho, F. M. (2014). Strengthening student engagement: what do students want in online courses? *European Journal of Training and Development, 38*(9), 782–802. https://doi.org/10.1108/EJTD-11-2013-0123

Christenson, S., Reschly, A. L., & Wylie, C. (Eds.). (2012). *Handbook of research on student engagement* (Vol. 840). New York: Springer. https://doi.org/10.1007/978-1-4614-2018-7

Conley, D. T., & French, E. M. (2014). Student Ownership of Learning as a Key

Component of College Readiness. *American Behavioral Scientist, 58*(8), 1018–1034. https://doi.org/10.1177/0002764213515232

Cortazzi, M., & Jin, L. (2006). Asking questions, sharing stories and identity construction: Sociocultural issues in narrative research. In S. Trahar (Ed.), *Narrative research on learning: Comparative and international perspectives* (pp. 27–47). Symposium Books.

Dillenbourg, P., Järvelä, S., & Fischer, F. (2009). The evolution of research on computer-supported collaborative learning. In N. Balacheff, S. Ludvigsen, T. de Jong, A. Lazonder, & S. Barnes (Eds.), *Technology-enhanced learning* (pp. 3–19). Springer.

Dukuzumuremyi, S. & Siklander, P. (2018). Interactions between pupils and their teacher in collaborative and technology-enhanced learning settings in the inclusive classroom. *Teaching and Teacher Education, 76,* 165–174. https://doi.org/10.1016/j.tate.2018.08.010

Edwards, A. & D'arcy, C. (2004) Relational agency and disposition in sociocultural accounts of learning to teach. *Educational Review,* 56(2), 147–155. https://doi.org/10.1080/0031910410001693236

Edwards, A. (2007). Relational agency in professional practice: A CHAT analysis. *Actio: An International Journal of Human Activity Theory,* 1(1), 1–17. http://hdl.handle.net/10112/7566

Finnish National Board on Research Integrity TENK. (2023). The Finnish Code of Conduct for Research Integrity and Procedures for Handling Alleged Violations of Research Integrity in Finland https://tenk.fi/sites/default/files/2023-05/RI_Guidelines_2023.pdf

Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research*, *74*(1), 59–109. https://doi.org/10.3102/00346543074001059

Fredricks, J. A., Filsecker, M., & Lawson, M. A. (2016). Student engagement, context, and adjustment: Addressing definitional, measurement, and methodological issues. *Learning and Instruction, 43*, 1–4. https://doi.org/10.1016/j.learninstruc.2016.02.002

Han, F. & Ellis, R. A. (2019). Using phenomenography to tackle key challenges in science education. *Frontiers in Psychology., 10*(1414). https://doi.org/10.3389/fpsyg.2019.01414

Institute of International Education. (2024). *Project Atlas Finland*. IIE - The Power of International Education. https://www.iie.org/research-initiatives/project-atlas/explore-data/finland-2/

Järvelä, S., Järvenoja, H., Malmberg, J., Isohätälä, J., & Sobocinski, M. (2016). How do types of interaction and phases of self-regulated learning set a stage for collaborative engagement? *Learning and Instruction, 43*, 39–51. https://doi.org/10.1016/j.learninstruc.2016.01.005

Jeong, H., & Hmelo-Silver, C. E. (2016). Seven affordances of computer-supported collaborative learning: How to support collaborative learning? How can technologies help? *Educational Psychologist*, *51*(2), 247–265. https://doi.org/10.1080/00461520.2016.1158654

Kahu, E. R. (2013). Framing student engagement in higher education. *Studies in Higher Education, 38*(5), 758–773. https://doi.org/10.1080/03075079.2011.598505

Kahu, E. R. & Nelson, K. (2018). Student engagement in the educational interface: Understanding the mechanisms of student success, *Higher Education Research & Development*, 37(1), 58–71. https://doi.org/10.1080/07294360.2017.1344197

Kahu, E. R., Picton, C., & Nelson, K. (2020). Pathways to engagement: A longitudinal study of the first-year student experience in the educational interface. *Higher Education*. 79(4), 657–673. https://doi.org/10.1007/s10734-019-00429-w

Kahu, E., Stephens, C., Leach, L., & Zepke, N. (2015). Linking academic emotions and student engagement: Mature-aged distance students' transition to university. *Journal of Further and Higher Education*, *39*(4), 481–497. https://doi.org/10.1080/0309877x.2014.895305

Kangas, M., Siklander, P., Randolph, J., & Ruokamo, H. (2017). Teachers' engagement and students' satisfaction with a playful learning environment. *Teaching and Teacher Education, 63*, 274–284.

https://doi.org/10.1016/j.tate.2016.12.018

Kettunen, J., & Tynjälä, P. (2018). Applying phenomenography in guidance and counselling research. *British Journal of Guidance & Counselling, 46*(1), 1–11. https://doi.org/10.1080/03069885.2017.1285006

Korkealehto, K. & Lakkala, M., & Toom, A. (2021). Enrolled or engaged? Students' perceptions of engagement and oral interaction in a blended learning language course. *The JALT CALL Journal, 17*(1)*,* 1-22. https://doi.org/10.29140/jaltcall.v17n1.268

Kumar, J. M., & Herger, M. (2013). *Gamification at work: Designing engaging business software*. The Interaction Design Foundation. https://www.interaction-design.org/literature/book/gamification-at-work-designing-engaging-business-software

Lawton, S., & Taylor, L. (2020). Student perceptions of engagement in an introductory statistics course. *Journal of Statistics Education, 28*(1), 45–55. https://doi.org/10.1080/10691898.2019.1704201

Lu, W., & Everson Härkälä, T. (2024). International student experience of employment integration in Finland. *Research in Comparative and International Education*, *19*(2), 133–152. https://doi.org/10.1177/17454999241238172

Martin, F. & Borup, J. (2022) Online learner engagement: Conceptual definitions, research themes, and supportive practices, Educational Psychologist, 57:3, 162−177. https://doi.org/10.1080/00461520.2022.2089147

Marton, F. (1981). Phenomenography describing conceptions of the world around us. *Instructional Science, 10*, 177–200. https://doi.org/10.1007/BF00132516

Marton, F. (1986). Phenomenography – A research approach investigating different understandings of reality. *Journal of Thought*, *21*(3), 28–49. http://www.jstor.org/stable/42589189

Marton, F., & Booth, S. (1997). *Learning and Awareness*. Routledge. https://doi.org/10.4324/9780203053690

Nix, N.W., & Zacharia, Z.G. (2014). The impact of collaborative engagement on knowledge and performance gains in episodic collaborations. *The International Journal of Logistics Management, 25*(2), 245–269. https://doi.org/10.1108/IJLM-05-2013-0060

Page, A.G., & Chahboun, S. (2019). Emerging empowerment of international students: how international student literature has shifted to include the students' voices. *Higher Education,* 78, 871–885. https://doi.org/10.1007/s10734-019-00375-7

Pang, M. F. (2003). Two Faces of Variation: On continuity in the phenomenographic movement. *Scandinavian Journal of Educational Research*, *47*(2), 145–156. https://doi.org/10.1080/00313830308612

Pietarinen, J., Soini, T., & Pyhältö, K. (2014). Students' emotional and cognitive engagement as the determinants of well-being and achievement in school. *International Journal of Educational Research, 67*, 40–51. https://doi.org/10.1016/j.ijer.2014.05.001

Redmond, P., Heffernan, A., Abawi, L., Brown, A., & Henderson, R. (2018). An online engagement framework for higher education*. Online Learning, 22(*1), 183–204. https://doi.org/10.24059/olj.v22i1.1175

Renninger, K. A., & Bachrach, J. E. (2015). Studying triggers for interest and engagement using observational methods. *Educational Psychologist, 50*(1), 58–69. https://doi.org/10.1080/00461520.2014.999920

Rhodes, T.L. (2012). Show me the learning: Value, accreditation, and the quality of the degree. *Planning for Higher Education, 40*(3), 36–42.

Russell, C.K., & Gregory, D. M. (2003). Evaluation of qualitative research studies. *Evidence-Based Nursing, 6*, 36-40. http://dx.doi.org/10.1136/ebn.6.2.36

Salmela-Aro, K., Moeller, J., Schneider, B., Spicer, J., & Lavonen, J. (2016). Integrating the light and dark sides of student engagement using person-oriented and situation-specific approaches. *Learning and Instruction, 43*, 61–70. https://doi.org/10.1016/j.learninstruc.2016.01.001

Sawyer, K. (2015). Group flow and group genius. *NAMTA Journal*, *40*(3), 29–52. https://files.eric.ed.gov/fulltext/EJ1077079.pdf

Siklander, P. & Harmoinen, S. (2021). Ice age is approaching: Triggering university students' interest and engagement in gamified outdoor playful learning activities. In P. White, J. Raphael, & K. van Cuylenburg (Eds)., *Science and drama: Contemporary and creative approaches to teaching and learning* (pp. 125–143). Springer.

Siklander, P., Kangas, M., Ruhalahti, S., & Korva. S. (2017, March). Exploring triggers for arousing interest in the online learning. In L. Gómez Chova, A. López Martínez, I. Candel Torres (Eds.), *INTED2017 Proceedings* (pp. 9081–9089). 11th International Technology, Education and Development Conference, Valencia, Spain.

Skinner, E. A., & Pitzer, J. (2012). Developmental dynamics of engagement, coping, and everyday resilience. In S. Christenson, A. Reschly, & C. Wylie (Eds.), *The handbook of research on student engagement* (pp. 21–45). Springer.

Stenfors-Hayes, T., Hult, H., Dahlgren, M. (2013). A phenomenographic approach to research in medical education. *Medical Education, 47*(3)*,* 261–270. https://doi.org/10.1111/medu.12101

Tani, M., Gheith, M. H. & Papaluca, O. (2021). Drivers of student engagement in higher education: A behavioral reasoning theory perspective. *Higher Education,* 82, 499–518. https://doi.org/10.1007/s10734-020-00647-7

Trowler, V., Allan, R.L., Bryk, J. & Din, R.R. (2022). Pathways to student engagement: Beyond triggers and mechanisms at the engagement interface. *Higher Education,* 84, 761–777. https://doi.org/10.1007/s10734-021-00798-1

Trigwell, K. (2000). A phenomenographic interview on phenomenography. In J. A. Bowden, & E. Walsh (Eds.). *Phenomenography* (pp. 62–82). RMIT University Press.

Vuopala, E., Hyvönen, P., & Järvelä, S. (2015). Interaction forms in successful collaborative learning in virtual learning environments. *Active Learning in Higher Education*, *17*(1), 25–38. https://doi.org/10.1177/1469787415616730