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Reconceptualising postgraduate taught student experience through the lens of emotions and well-being: Moving from explanatory methodology to revelatory

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ABSTRACT

This study introduces a methodological approach for exploring taught postgraduate (PGT) student experience as a relationship with emotion and wellbeing. We examine the anatomy of PGT student emotions at one UK university and explore their functional and consequential role in student experience. Findings suggest PGT student experience is defined by a complex array of emotions that interact closely with appraisal, motivation, and behaviour. They have deleterious or beneficial impact on core dimensions of learning and wellbeing including engagement, cognitive flexibility, and social connectedness. Our methodological approach provides an avenue for exploring this complexity through a multi-level and revelatory examination of emotions, from which it is possible to develop proactive approaches to student wellbeing through improved emotion awareness, competencies, and control.

1. Introduction

A growing body of empirical and theoretical research focuses attention on the importance of student wellbeing in UK Higher Education (HE) acknowledging it as a primary determinant in student experience, informing attainment, retention, and employability (dePury & Dicks, 2020; Feldman, 2021; GuildHE, 2018; Houghton & Anderson, 2017; Streuer, Marks & Murphy, 2008). Sector-wide, institutional initiatives reflect this focus, introducing holistic approaches to addressing the hedonic and eudemonic aspects of wellbeing through system-wide actions aimed at supporting learning and student success (Feldman & Newman, 2021; GuildHE, 2018; Pollard et al., 2021). Current policy and practice directives address safeguarding, mitigating circumstances, and return to study; while university support services campaign to promote wellbeing awareness, encouraging students to seek support during periods of heightened stress; and learning analytics are being used to inform positive teaching and learning experiences (Feldman, 2021; Herodotou et al., 2019; Houghton & Anderson, 2017; Pollard et al., 2021).

These actions are a positive step for HE toward achieving the UK Universities 2018–2023 strategic goal of maximizing their positive impact for students and are a welcome driver for supporting postgraduate taught (PGT) students who encounter a host of internal and external study stresses along their complex and multifaceted student journey (White & Ingram, 2021). This is a student group defined by cultural variability and multiple identities shaped through their pluralistic involvement with family, community, and workplace (White and Ingram, 2021). The traditional perception that a ‘one size fits all’ approach could be adopted to support this student group is long out-dated (Morgan & Direito, 2016p.18). The wellbeing of PGT students depends upon their capacity to cope with the myriad of

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stressors they encounter through the multiple identities that define their various memberships, implicating their engagement with the cognitive, affective, and motivational dimensions of learning (Boekhaerts, 1993; Dirkx, 2009; Seligman, 2018). These dimensions include decision making, sense of self, relationships, autonomous working, and feelings of purpose and satisfaction. They set the conditions necessary for the deep learning that defines PGT study (Diener et al., 2010; Dirkx, 2009; QAA, 2018) and promote the development of the higher order capacities and competencies set out in UK Universities strategic goals (2018–2023) to promote growth and transformation, including creative, critical, innovative, cooperative, and reflexive thinking (Universities, 2018).

However, proponents of this holistic movement argue current approaches to student experience are deficient through their reactionary and reductionist orientation (Feldman & Newman, 2021; GuildHE, 2018; Razak et al., 2017) arrived at using measures of satisfaction. To achieve their fullest potential, they argue, requires a paradigm shift that adopts both proactive and preventative approaches to student wellbeing. *Education for Sustainable Development* (AdvanceHE, & QAA 2021) elucidates one direction for action, introducing emotion competencies as a route toward achieving this shift, citing the promotion of student self-awareness as an avenue promoting self-agency, sense of responsibility and effective decision-making with implications for wellbeing. This idea is echoed in medical research where emotional regulation and self-control have been identified as key sources of resilience that function to counter the negative impact of stress on wellbeing (Harvanek et al., 2021).

This emergent recognition informs the research reported in this paper through which we present three key strands that provide an original and impactful contribution to this area of inquiry.

- 1 We explore and synthesis emotion literature, examining the interplay between cognitive, affective, motivational, behavioural, and subjective emotion components to develop a holistic understanding of emotion as a driver in student experience and from which we establish a framework for understanding the appraisal dimensions that orchestrate the emotion process.
- 2 We introduce a replicable, multi-layer qualitative analysis process to examine the anatomy of PGT emotion and use the literature informed framework to examine the functional and consequential role of emotion in PGT student experience.
- 3 We present a selection of key findings from a three-year cross-sectional study highlighting the role of emotion in the multiple layers of interactions that define PGT student experience.

We propose this holistic approach offers the potential to move beyond student testimonies as descriptions of subjective experience to one which illuminates why students may experience their learning in the way they do and crucially the nature, intensity, duration, and visibility of such responses. Our methodological approach can be replicated and used more widely by the higher education community to shift the examination of student experience feedback from one which is descriptive and confirmatory to one which is multi-dimensional and revelatory. Through this revised understanding, we propose the opportunity resides to develop proactive approaches to student wellbeing founded on emotion awareness, competencies, and control.

Our findings have relevance within the higher education sector, contributing to the insights, discussions, and practices relating student experience and wellbeing. Using our integrated framework, we move beyond reacting to PGT student experience according to satisfaction measures (Leman, 2021) to identifying the underpinning emotion processes that inform student satisfaction and shape their experience. We propose our methodological approach addresses the call for a paradigm shift in approaches to student wellbeing and will contribute to sector wide discussions seeking proactive measures that support positive student wellbeing with potential to fulfil the ambitions of HE and the wider calls of *Education for Sustainable Develop* (Advance HE-QAA, 2021).

This research should be of interest to institutional leaders, policy makers, educators, and researchers committed to achieving the transformative goals of HE through moving beyond current reactionary approaches that have students as passive participants in their experiences, to proactive approaches that support student agency through improved emotion competencies.

In the next section we elaborate on these ideas, exploring the complexity of emotion, its relationship to wellbeing and PGT student experience before presenting the methodological approach undertaken and reporting our findings relating to the relationship between emotion, wellbeing, and student experience.

2. Understanding emotion as a central driver in PGT student experience

2.1. Theoretical framework

Holism (Lazarus, 2000; Smuts, 1926) provides a useful theoretical framework for exploring emotion as a driving influence informing wellbeing and PGT student experience (Ingram & White, 2020; White & Ingram, 2021). Through holism we conceive emotion as an ongoing and recursive multi-component process involving multiple intersecting and integrated biopsychosocial cultural systems harnessed together and functioning to support individual wellbeing (Parkinson, 1996; Scherer & Ekman, 2014).

The complexity of emotion can be easily overlooked through its expressive and experienced nature (Izard, 2011; Scherer, 2005). Most people view emotion as a bodily representation, readily described as an expression seen on the face, heard in the voice, reflected in the actions of others, or experienced as a felt meaning (Parrot, 2001; Meuleman et al., 2019). Arguably, within HE this view of emotion has had prominence through the annual surveys that seek to capture student experience through measures of satisfaction (Leman, 2021). Such measures represent *what* students' feel, from which universities derive a degree of understanding that can be used to inform programme and institution developments (Leman, 2021). As an example, 2021 PTES data indicates PGT students felt isolated during their studies. They missed class discussions and the opportunity to develop connections with staff (Leman, 2021). This is relevant information that may shape future programme enhancement with the goal of improving how students feel about their experiences. However, its value in fully understanding student experience and in activating the student as an agent in their experience is

limited because it represents only one component of a multicomponent emotion process. Knowing students’ feelings does not convey any depth of understanding as to *why* students feel this way and the functional or consequential implications for those feelings. As a result, programme and institutional leaders can only react or respond to it, and students remain passive conveyors of information. A measure of satisfaction provides limited evidence of the cognitive underpinnings that have given rise to the reported experience; the implications for physiological response, motivation, and behaviour, which keeps this measure of student experience inherently reactionary and limited in scope. We propose a study of PGT student emotion as a multicomponent process provides the potential to address this gap in understanding with the scope to introduce new insights for building emotional awareness and competencies that promote positive wellbeing through improved student agency.

To achieve this, the bodily-expressive dimension (subjective component) provides a starting point for our research. It reflects the coordinated changes in the other emotion components; conveys a sense of the type and intensity of emotion arousal, and reveals *what* an individual feels (Scherer, 2005). More importantly though, appraisal theorists suggest (Moors et al., 2013), the subjective component can be used as a doorway into exploring the other emotion components, through which rests the potential to explore the ‘*why*’ that underpins an emotional experience– that is the functional and consequential role of appraisals, physiology, motivation, and behaviour subsystems that elicit an emotion experience.

While each of these organismic subsystems typically operate independently, they are temporarily harnessed through the emotion process in response to a bio-evolutionary interest in wellbeing (Meuleman et al., 2019). Through this interest, emotion takes control precedence, bridging mind and body, as each component becomes oriented toward resolving perceived internal or external threats. The cognitive-evaluative component of emotion drives the emotion process, interacting closely with motivation (action processes), physiology (bodily responses), behaviour (expressed motor responses), and feeling states (subjective experience) to inform adaptational responses that support addressing intrapersonal and interpersonal difficulties according to wellbeing, which include goal-oriented interests (Frijda, 2007; Fontaine & Scherer, 2013; Smith & Lazarus, 1990). These subsystems remain harnessed to the emotion process until a sufficient response is achieved to resolve the perceived threat to wellbeing.

Through this understanding, the relevance for exploring the functional and consequential role of emotion in PGT student experience becomes plausible. By definition, PGT students’ wellbeing is rooted in goal-oriented interests related to their study journey and the independent functioning of each sub-system supports their focused engagement and development of capacities essential for learning (Boekhaerts, 1993; Dirkx, 2009; Seligman, 2018); any perceived threat to wellbeing disrupts this independent functioning (Meuleman et al., 2019) with implications to the student journey through the redirection and conjoined attention of subsystems away

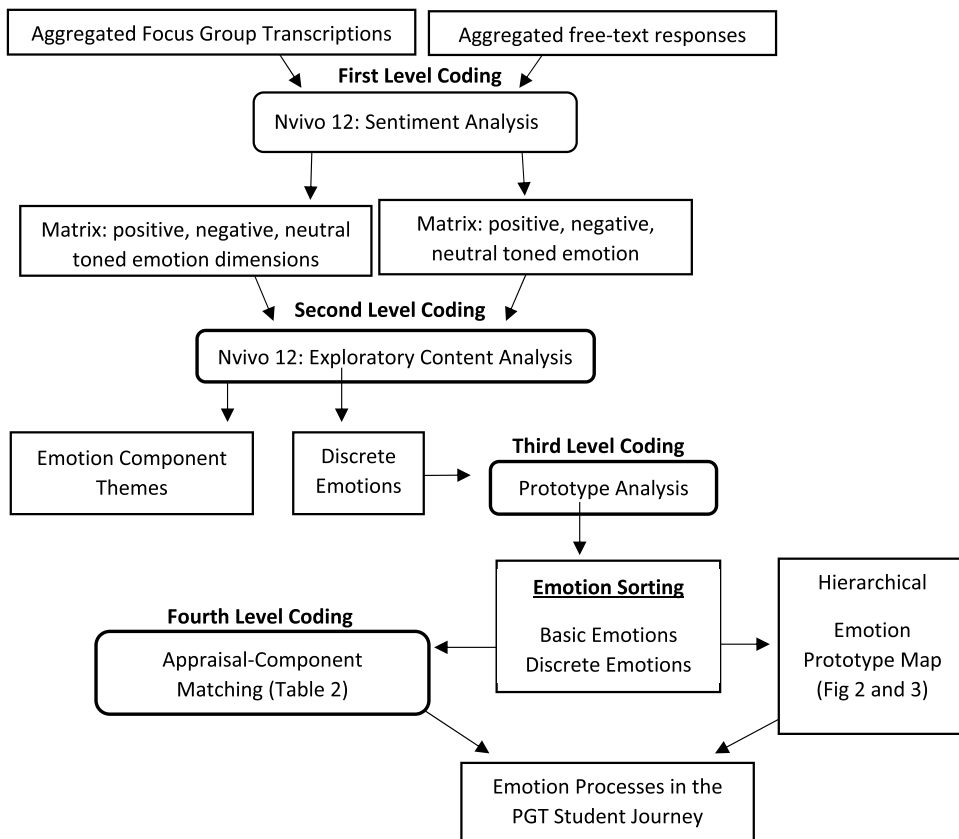


Fig. 1. Multi-Level Qualitative Analysis: An illustrative representation of the four levels of qualitative analysis that supported an exploration of the role of emotions in PGT student experience.

from learning toward resolving the threat.

2.2. Cognitive appraisals and the emotion process

Appraisals drive the emotion process (Lazarus, 1991); they provide the cognitive-evaluative and mediational component that allows an individual to make sense of and adapt to their environment according to wellbeing interests.

Primary appraisals are evaluative. They function to detect and assess the relevance of an interaction and assign a judgement of benefit, challenge, or threat according to its potential for satisfying or obstructing goal-oriented concerns (Lazarus, 1991; Moors et al., 2013). Primary appraisals give rise to initial positive or negative feelings that are subject to change according to secondary mediating appraisals. Secondary appraisals function to mediate the emotion response according to an evaluation of an individual's perceived capacity to cope. Combined these appraisals function to impute the relational meaning of an interaction and influence subsequent responses within each subsystem (Folkman et al., 1986b; Fontaine & Scherer, 2013).

Within the appraisal process, goal commitment is a dominant mediating factor warranting consideration through its relevance to the study journey. Its function is to inform the intensity of change in the motivational, expressive, and physiological component of emotion, leading to the felt meaning that informs experience (Lazarus, 1991; Meuleman et al., 2019; Schiffer, 2019).

Through this review we highlight the link between appraisal and emotion's adaptative qualities, effectively bridging the cognitive with the bodily-expressive component of emotion. Ultimately appraisal informs the type and intensity of emotion arousal, actions, and reactions during an interaction (Lazarus, 2006a, Lazarus, 2006b; Meuleman et al., 2019). This ultimately feeds into the ongoing emotion process and defines person-environment interactions according to goal-oriented interests and with implications for wellbeing through their impact on social, psychological, somatic, and emotional health.

Through a wide body of empirical research, theorists reason an unfolding pattern of appraisal will give rise to a specific emotion (Fridja, 2007; Lazarus, 1991; Meuleman et al., 2019; Roseman, 2011; Scherer, 2005; Smith & Ellsworth, 1985). While there are varying appraisal models and methodological approaches (Frijda, 1986; Lazarus, 2001; Roseman, 2011; Scherer, 2001) theorists agree there are universal patterns of appraisal that elicit specific emotion experiences (Scherer, 2001) and that give each emotion its own unique profile defined according to a pattern of appraisals (Sander et al., 2005).

In the current study, the models of Smith and Ellsworth (1985); Lazarus (2001); Roseman (2011); Scherer (2001) were reviewed, from which a comprehensive pattern of 8 appraisal dimensions was established, each occurring in a minimum of two of the models. These 8 appraisal dimensions were used during the fourth level of coding (see Fig. 1) to establish a projected emotion profile of each feeling identified in the analysis (Table 3). Table 1 provides an overview of each of the 8 appraisal dimensions.

Through this section of writing, we have introduced emotion as a central organizing construct in PGT student experience. It is a nexus between interpersonal and intrapersonal interactions - inseparable from and entangled with cognitive-evaluative-mediational and bodily properties with a bio-evolutionary inheritance oriented toward survival and wellbeing (Frijda & Scherer, 2009; Izard, 2011; Lazarus, 1991). During any experience, emotion is defined by the synergistic interactions of a host of organismic sub-systems activated according to intrinsic and transactional appraisals in response to person-environment interactions (Lazarus, 1991; Scherer, 2005). It is the synchronization of these processes that is reflected in an individual's emotion responses: the amplitude, valence, and salience of their felt meaning; and enacted and expressive behaviours that inform wellbeing and subjective experience (Parkinson, 1996; Smith et al., 1993; Meuleman et al., 2019).

This emotion-centric process has relevance for PGT students who enter study with varying sociocultural histories, prior knowledge and learning experiences, varied expectations of study (Coneyworth et al., 2020; Tobbell and O'Donnell, 2013), and who, predominantly, are heavily goal committed in their study journey. Their capacities for coping with the host of interactions they encounter in

Table 1

An overview of the appraisal dimensions used to explore PGT STUDENT EMOTIONS.

Novelty	A primary appraisal alerting an individual to an internal or external environmental change and informs initial measures of relevance, which stimulates the direction and intensity of attention according to the degree of suddenness, familiarity, and predictability of an event (Fontaine & Scherer, 2013).
Intrinsic Pleasantness	A primary appraisal giving rise to an initial liking or disliking response that informs engagement or avoidance behaviors (Scherer, 2001, p. 95)
Goal Relevance	A primary appraisal that measures the relevance or importance of an encounter according to an individual's wellbeing interests (Lazarus, 2001, p. 55; Roseman, 2011). The degree of relevance will determine the attentional orientation to the event and is influenced according to the importance of the goal. For example, a threat to economic wellbeing has a greater ranking than the threat of missing an evening of entertainment with friends (Scherer, 2001, p. 95).
Causal Attribution	This secondary appraisal assigns responsibility for an event and directly informs the response of other subsystems. Attributed agency includes self, other, or circumstances and the intent is judged as intentional, unintentional, or resulting through negligence (Lazarus, 2001; Roseman, 2011; Scherer, 2001).
Goal Conduciveness	A secondary appraisal judging the degree of conduciveness of an event for achieving one or more of the intended goals.
Outcome Probability	A secondary appraisal of the certainty or probability of a goal-relevant outcome and is significant given that outcome drives an emotion response more so than the event itself (Ellsworth & Scherer, 2003; Roseman, 2011).
Expectation	Expectation appraisals evaluate whether an outcome violates or confirms an individual's explicit expectations of an event in terms of goal achievement (Roseman, 2011; Sander & Scherer, 2005).
Coping Potential	A secondary appraisal assessing capacity for coping with an assigned threat. This appraisal is based on the perceived control and power an individual has, to modify an outcome and their capacity to adjust to an event that is beyond their control (Ellsworth & Scherer, 2003; R.S. Lazarus, 2006).

and across the various eco-systems that define their journey depends on the interplay of the emotion components (Author A & Author B, 2021). This interplay informs how they feel, act, and react within their environment and has behavioural, motivational, physiological, psychological, and social consequences which inform capacities for learning and have implications for wellbeing and experience (Fontaine & Scherer, 2013; Smith & Lazarus, 1990; Stets & Serpe, 2016).

In this study we explore PGT student experience as a journey defined by emotion. Through our review of literature, we have arrived at four key understandings that inform our methodological approach:

- 1 Emotion is a multi-componential process that harnesses otherwise independently operating organismic sub-systems including cognition, physiology, motivation, behaviour, and subjective experience.
- 2 Feeling, or felt meaning, is the emotion component that denotes subjective experience.
- 3 Felt meaning is the integrated and labelled representation of an emotion-specific outcome arrived at through the interplay of the various emotion components driven according to a sequence of appraisals and coping processes with motivational, behavioural, social, and expressive consequences (Fontaine & Scherer, 2013; Lazarus, 2006a, Lazarus, 2006b).
- 4 Each emotion outcome is unique to a distinct pattern of appraisals and reflects an individual's evaluation of the benefit or harm presented in each interaction (Lazarus & Smith, 1991).

Through this understanding, we propose there is potential to move beyond satisfaction measures of *what* students feel, to measures of subjective experience that support an exploration of *why* students feel the way they do. Through an analysis of *why* resides the opportunity for new insights defined by an understanding of the appraisal dimensions, coping approaches, relational meanings, and consequential action tendencies that contribute to the PGT student experience. These key ideas inform the next section of writing which introduces the methodological approach used to explore the functional and consequential role of emotion as an orchestrating feature of PGT student experience.

3. Methodology

This study conceives emotion as a central driver in PGT student experience, arrived at through a multicomponent process functioning adaptively in response to situational demands, constraints, and in the interest of wellbeing (Lazarus, 1991; Scherer, 2005). Our aim is to explore and better understand the functional and consequential role that emotion plays in the PGT student experience. Exploring the role of these processes is a complex undertaking. To support our methodology, we draw from Scherer's *Component Process Model (CPM) (2005)* using the feeling component of the emotion process to guide the exploration (Fontaine & Scherer, 2013).

Feelings are the outward expression of an individual's subjective experience. They are the conscious component in the emotion process and provide an individual with an awareness of their own internal functioning (Fontaine & Scherer, 2013). Feelings support an exploration of the functional and consequential role of emotions in three distinct ways:

- 1) Through their affective nature, feelings provide insight into the quality of an emotion experience through dimensions of valence (pleasant vs unpleasant), arousal (calm vs excited), and/or tension (relaxed vs stressed) (Fontaine & Scherer, 2013; Harmon-Jones et al., 2017; Lazarus, 2006a, Lazarus, 2006b).
- 2) Feelings provide a labelled representation of discrete emotion experiences, each evoking its own specific, adaptive emotion response according to their affective dimension (arousal, valence, tension); the eliciting event; and the combinations of appraisals that inform motivations and behaviours (Ekman & Cordaro, 2011; Fontaine & Scherer, 2013; Lazarus, 2006a, Lazarus, 2006b; Shaver et al., 2001). Within discrete emotion families, basic emotions have universal recognition and shared language labels that include anger, fear, sadness, joy, happiness, surprise. They are used to denote a larger family of related emotion states (Ekman & Cordaro, 2011). For example, fear is an emotion label that includes anxiety, worry, distress, shock, panic, and fright.
- 3) Feelings can be accessed as a written or verbal expression of individual emotion experiences and provide insight into the various emotion components (Lazarus, 2006a, Lazarus, 2006b; Scherer, 2005). A free response design supports maximum accuracy in reporting and is suited to exploratory research but is limited in empirical studies where the breadth and lack of depth of emotion responses is a prohibiting factor (Fontaine & Scherer, 2013; Rowe & Fitness, 2018). Drawing from Scherer (2005, p. 716) in this research, any labels or expressions denoting an affective phenomenon will be used as evidence of a feeling state.

We use these key features to guide our exploratory approach to analysis using subjective experience as a starting point for our methodological approach from which we access students' felt meaning, allowing us to gain insight into the other emotion components.

3.1. Aims and research questions

The data in this study forms part of a larger study exploring the role of emotion in PGT student experience (including a granular analysis of the emotions experienced by distance learning vs on-campus students). The focus of this study, however, is to report global findings from a three-year repeated cross-sectional research design exploring PGT student experience as a relationship with emotion and wellbeing through interactions across 5 facets of the student journey: Academic, Expectations, University Services, Daily Life, Culture. Specifically, the research addressed the following exploratory questions:

- 1 What emotions do PGT students feel?

2 What is the functional and consequential role of emotion in PGT student experience?

3.2. Context and procedure

The research took place over a 3-year period, (2017–2020), in the School of Education and Social Work at a Scottish University. Data was collected annually using a two-phase process. In October of each academic year, PGT students were recruited via university email to participate in a 3-part survey that used Likert scale and free-text questions to capture their experiences across 5 facets of the student journey and included measures of wellbeing. As a final question in the survey, respondents were asked to indicate their interest in participating in a follow-up focus group. Follow-up email communications supported focus-group recruitment. The purpose of the semi-structured focus group was to explore in greater depth, key findings arising from the survey. From the annual statistical and thematic data analysis (Maguire & Delahunty, 2017) emotion emerged naturally as a core factor in student experience and spurred on our interest in a deeper exploration and re-analysis of the qualitative data as an aggregate data set giving emotion an explicit focus.

The initial re-sorting of the data involved creating two aggregated data sets, one with focus group transcriptions that captured the subjective experiences of 13 participants (female = 11, male = 2) and one for free-text comments with the views of 98 participants captured through the survey responses. Participants were located across a variety of disciplines: Education, Psychology of Education, Social Work, Leadership and Innovation, and Community Education and represented the diverse demographic nature of the population as summarised in Table 2.

In the following section, we set the stage for a new approach to exploring and understanding PGT student experience as we unfold the steps involved in our approach to re-analysing the data.

3.3. A multi-level qualitative approach to exploring emotion

Qualitative analysis embraces holism; it acknowledges the complexity of the lived experience defined according to the synergistic interactions of the individual with events and contexts, from which a richness of discovery and exploration, leading to new thinking and hypothesis development (Miles et al., 2018). This, paired with the rigor, transparency, and flexibility qualitative analysis affords, makes it effective for achieving an in-depth exploration and analysis of the phenomenology of emotion experiences that define the PGT student journey.

The analysis began with data condensing, an approach that Miles, Huberman, and Saldaña (2018) suggest supports organising data in a focused way to enable addressing what Cohen, Mannion, and Morrison (2018) describe as the complexity of qualitative data analysis, moving from description, to understanding, interpretation, and conclusions. The three years of qualitative data was cleaned; transcripts had unwanted dialogue including instructional information and researcher narrative removed, and free-text comments

Table 2
An overview of demographic information capturing the diversity of the participant population.

Characteristic		
Gender	Female	79
	Male	19
	Other	0
Age	18–24	9
	25–30	24
	31–39	34
	40–49	27
	50–59	2
Type of Study	60+	2
	On campus Learning	51
	Distance Learning	47
Current Year of Study	First	53
	Second	39
	Third	6
Origin	International (not EU)	31
	International (EU)	7
	Scotland	48
	Rest of UK	12
First Language English	Yes	68
	No	31
Dependents	Yes	46
	No	52
Work Status	Full time	31
	Part time	32
	Not Working	33
	Retired	2

Table 3
Projected emotion profiles according to appraisal patterns matched to feelings experienced by PGT students.

Appraisal Dimension		Novelty	Intrinsic	Goal	Causal	Outcome	Expectation	Goal	Coping Potential
Basic Emotion	Sub-ordinant Groupings of Emotion	-sudden (S) -familiarity (F) -predictability (P)	Pleasantness	Relevance	Attribution	Probability	Discrepancy	Conduciveness	-control (C) -power (PW) -adaptability (A)
Anger	Core (Hot Anger) Resentment hate	High - S Low - F Low - P	low	high	other, intentional	very certain	Dissonant	Obstructive	high - C high - PW high - A
	Non-Core (Cold Anger) Frustration	low-medium -S low-medium -F low-medium -P	very low	low-medium	intentional/ negligence	very certain	open	obstructive	low-medium - C low-medium - PW high - A
Fear	Core Scare Shock Panic	High - S Low - F Low - P	low	high	other/ natural	certain	dissonant	obstructive	Open - C very low - PW low - A
	Non - Core Anxiety Discomfort Worry Apprehension Distress	Low - S Low - F Open - P	open	medium	other/natural	low- medium certainty	open	obstructive	Low - C Low - PW Medium - A
Sadness	Core Despondent Intimidation	Low - S Low - F Open - P	open/low	high	other	very certain	open	obstructive	Low - C Low - PW Medium - A
	Non - Core Isolation Disgruntlement Guilt Discouragement Insecurity Disappointment*	High - S Low - F Low - P	low	medium	self other	very certain	dissonant	obstructive	Low - C Low - PW Open - A
Happiness/Elation	Core Enjoyment Elation* Happiness	Low - S high*/medium - F Open - P	high	medium Positive future expectations	open	very certain	open	conductive	Open - C Open - PW high/med* - A
	Non-Core Pride Excitement Gratitude Empowerment Value Belonging Pleasure	Open -S Open - F Open - P	open	high	self	very certain	open	very conducive	Medium - C Medium - PW High - A
Amazement/ Surprise	Core Surprise	High - S Low - F Low - P	high	high	open	open	consonant	conductive	Open - C Open - PW Open - A
	Non-Core - None								

NOTE: **open** - adopted from Sander et al. (2005, p. 325) to indicate a variety of different outcomes are possible or to signal that the appraisal check does not have relevance.
low/high/certainty/conductive: represent the polarity of the appraisal value assigned to the corresponding emotion group.

were edited to correct spelling and grammatical inaccuracies without violating the wording and meaning of the text (Chu & Ilyas, 2016). The data was further condensed into two aggregate sets, one containing focus group transcripts and the second containing free-text data. Aggregate sets underwent a further four levels of analysis as illustrated in Fig. 1.

First level coding involved the use of QSR International Nvivo 12 software (2018) to complete a sentiment analysis. Sentiment analysis is a multi-modal auto-coding approach used to extract affective information from text (Poria et al., 2018). The sentence-level sentiment analysis provided a first cycle of coding, sorting the data according to negative, positive, and neutral-toned emotion dimensions (Poria et al., 2018). This initial sorting by emotion polarity further condensed the extensive data sets into accessible chunks, and supported the next, second level coding, using exploratory content analysis.

Content analysis is an effective approach for constructing variable-oriented connections and befits an analysis of large aggregate data sets (Cohen et al., 2018, p. 437). The granular level of engagement supported by content analysis served to confirm the first level coding, and to enrich our understanding of the affective content. Second-level coding was used to group the data at a more granular, categorical level (Miles et al., 2018). Through this level of analysis, the two data sets merged as one, coded to capture the various discrete emotion categories emerging from the text. Empirically and theoretically defined semantic tables (Scherer, 2005) were used to support this analysis process, ensuring all emotion words could be identified and sorted.

At this point in the analysis, emotion component themes emerged through the exploratory process. Data was coded (Braun & Clark, 2006) with the parent codes: motivation, coping, and appraisal components of emotion. Within each parent code data was arranged hierarchically according to its relationship to the parent code. For example, motivation had a second level coding for positive and negative impacts to motivation, coping was sub-coded according to adaptive and maladaptive types, and appraisals included a second level coding according to benefit, challenge, or threat. This data has been reserved for future reporting as part of the wider study exploring the role of emotion in PGT student experience.

A third level of analysis was guided by Shaver et al.'s (1987) hierarchically arranged, three-tier emotion prototype model. Prototype approaches in emotion research have empirical strength, providing a plausible approach for understanding the relationships and distinctive characteristics that define an emotion concept (Shaver et al., 1987; Rowe & Fitness, 2015, 2018). The prototype's three tier arrangement depicts an emotion concept according to its defining elements: the superordinate level represents the general category (negative emotion); the basic level captures clear distinctions between categories and represents the most frequently used and salient categories emerging in emotion theory (for example, anger, fear, sadness are negative toned basic emotions); the subordinate level supports clustering emotions according to fine distinctions within the emotion category. In line with Shaver et al. (1987), we use core and noncore classifications to denote such distinctions. Core subcategories encapsulate clusters of emotions that are most synonymous with the basic level emotion while noncore are more distinct and specialized discrete emotions (Shaver et al., 1987, p. 37). For example, anger is synonymous with rage, fury, hostility, and hate. While, envy, jealousy, and contempt, although a subcategory of anger, are clustered separately indicating they have distinct and specialized profile features. The varying emotion lexicon is significant in terms of differentiating emotion intensity and revealing important information about the situational demands, constraints, appraisals, and relational meaning that defines the interaction or event (Shaver et al., 1987; Sander et al., 2005). This idea has relevance within our fourth level of analysis as we move on to matching feelings and appraisal components.

At the third level of analysis, the prototype approach was used to sort the discrete emotion data according to basic emotions, after which it became possible to create hierarchical arrangements depicting the relations between emotion categories for negative and positive emotion dimensions.

To avoid the inherent risk in qualitative analysis of privileging one interpretation over another and in keeping with the rigorous approach supported by qualitative analysis (Cohen et al., 2018), a second coder scrutinized the emotion data, evaluating each account and judging the analysis according to the key features of feelings that informed the coding system. Jottings, in the form of sticky notes, were used by the secondary coder to capture questions, concerns, and aspects of the data and to signal where further analytic attention was needed (Miles et al., 2018). The jottings were a useful tool to support critical discussion from which the primary and secondary coder could reflect, discuss, and re-analysis to either confirm or allow for new interpretations (Miles et al., 2018).

The final, fourth level of analysis engaged theoretical and empirically validated contingency tables (Frijda, 1986; Roseman, 2011, p. 70–71; Roseman 2013, p. 144; Scherer, 2001, pp. 114–115; Scherer, 2009; So et al., 2015) to support the interpretation of emotion findings and the matching of feeling states with appraisal patterns (Sander et al., 2005). Although contingency tables are limited in their capacity to infer causality, they do provide insight into the relationship between variables (Cohen, Mannion, and Morrison, 2018), which has merit in the exploration of emotion as a factor in PGT student experience.

The contingency tables supported the creation of projected emotion profiles for each feeling identified during the level 3 analysis and are presented in Table 3. The emotion profiles presented in Table 3 will be used to support our key findings and discussion offering insight into the functional and consequential role of emotion in PGT student experience.

4. Findings and discussion

The research aimed to explore and better understand the role of emotion in PGT student experience. It was anticipated the findings would provide insight into the emotions experienced by PGT students and that using emotion profiles would shed light on the functional and consequential role of emotions from which new understanding might contribute to sector-wide discussions exploring proactive measures that support positive wellbeing and PGT student experience.

4.1. PGT student emotions

The prototype analysis provided good insight into the feelings PGT students experience. These findings were used, in part with theoretically and empirically validated appraisal patterns (Ellsworth & Scherer, 2003; Frijda, 1986; Roseman, 2011, 2013; Scherer, 2001; Smith & Lazarus, 1990; So et al., 2015; van Dijk & Zeelenburg, 2002) to construct emotion profiles. In this section of writing, we systematically address each research question; first, sharing findings from the prototype analysis conveying emotions that PGT student experience. These are presented according to negative and positive emotion dimensions (Figs. 2 and 3). Following each set of these findings, we use the emotion profiles presented in Table 3 to facilitate our discussion on the functional and consequential role of the various emotions experienced by PGT students.

A total of 194 emotion statements were extracted from the data sets. Of these, 114 were associated with negative emotion dimensions and 80 were associated with positive emotion dimensions. Figs. 2 and 3 provide a summary of findings.

4.1.1. Negative Emotion Dimensions

Within the negative emotion dimension, *Sadness* and *Fear* were most frequently reported. *Sadness* has been a dominant finding in previous student emotion research (Rowe & Fitness, 2018;) arising in response to unpleasant, goal relevant and incongruent, inter-personal events (Sander & Scherer, 2009). It is associated with appraisals of other agency and has low coping potential through a perceived loss of resources (Ellsworth & Scherer, 2003; Sander & Scherer, 2009). Within the sadness family the findings suggest non-core emotions *isolation*, *discouragement*, and *insecurity* are experienced most frequently by students. Isolation reflects a lack of social or emotional support; discouragement is a feeling that arises through a perceived denigration of effort, and insecurity is a representation of self-doubt. These feelings arise through an appraisal of unexpectedness and low situational control and have consequences for behaviour and motivation because they disrupt an individual’s capacity to make predictions on future outcomes, creating a sense of uncertainty. Uncertainty has negative implications for risk taking and decision-making and promotes withdrawal and avoidance behaviours (So et al., 2015).

The experience of this negative family of emotions is significant for PGT students; the emotions within this family, tax the bodies’ systems and signal resource depletion which limits or discourages action (Robinson & Thomson, 2021). This idea emerged in our findings as one student shared feelings of despondence:

‘There were times when I would give up because I am looking for something and I cannot find it and I have nobody to ask.’

‘Witt et al. (2009) found that feelings of sadness correlated with increased perceptions of physical burden. When this happens, an individual is most likely to seek avoidance strategies as a means of coping with the event while also signalling to others a need for support (Zeman et al., 2019). The follow excerpt provides context:

‘And we are all going through a lot... there were four of us one day and I said, ‘I have no idea what I am talking about’ - my brain felt it had gone. We’ve all had moments of self-doubt – no we can’t do it.’

Sadness has negative implications for learning through decreased cognitive flexibility (Compton et al., 2004). It impairs reasoning, healthy thought processes, concentration and decision making because of decreased intrinsic alertness and response readiness paired with increased inward introspection and reappraisal of goals (Chepenik et al., 2007; Finucane et al., 2010). These factors negatively impact engagement and social connectedness, which are essential for effective learning in PGT study (QAA, 2018).

Within the *Fear* dimension, anxiety has garnered much attention as an emotion relevant to student experience (Dirkx, 2009; Pekrun, 2014; Rowe & Fitness, 2018; Vytal et al., 2013). Pekrun’s (2014) research suggests anxiety is an achievement emotion associated with the evaluative aspect of learning; this idea is supported by Dirkx (2009) who identified anxiety as commonly associated with learning tasks and assessments in adult learning contexts. Within this study, findings indicate *anxiety*, *worry*, and *distress* are three fear-family emotions that frequent PGT student experience. Within the literature these words have been used synonymously to represent an episodic emotion state (Strongman, 2003; Sweeny & Dooley, 2017). The following emotion experience provides context:

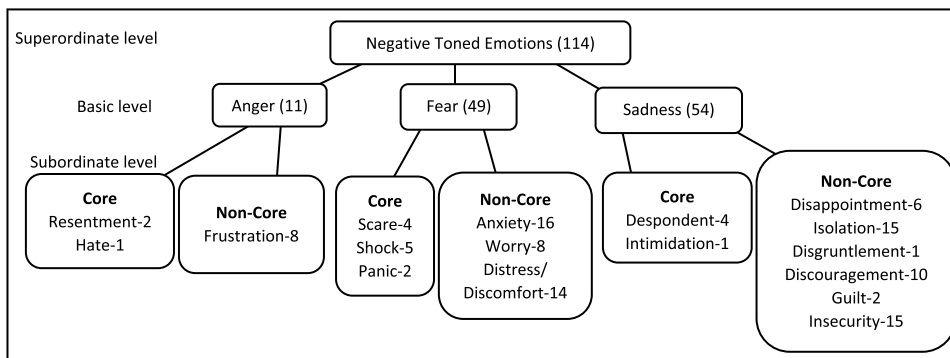


Fig. 2. Negative emotion dimensions that emerged from the prototype analysis.

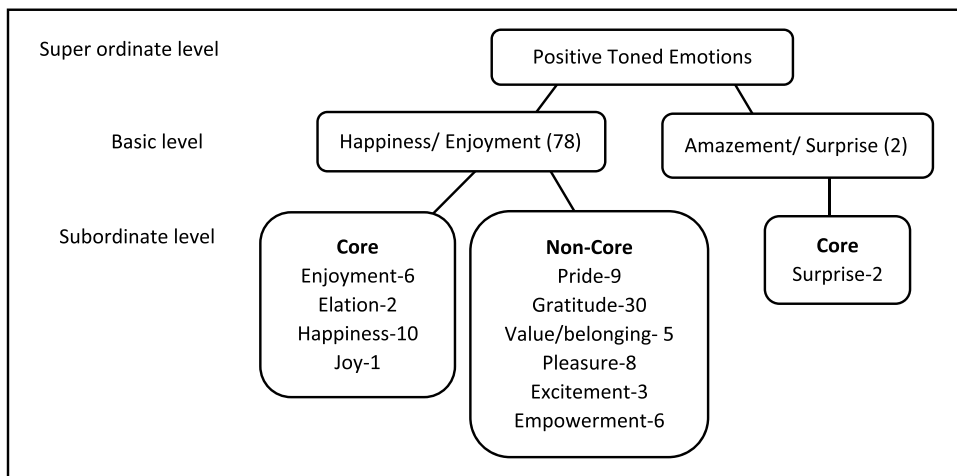


Fig. 3. Positive emotion dimensions that emerged from the prototype analysis.

‘There is also the anxiety about performance where you think you speak up in class and you sound a certain way, they might expect more from you and might fail people when it comes to that.’

Fear-family emotions are characterized by feelings of doom and reflect a highly aroused, aversive state through which an individual is motivated to act to resolve a threatening event (Sander & Scherer, 2009). Unlike core fear emotions that arise suddenly in response to an immediate threatening event and that can motivate protective actions, anxiety, worry, and distress arise through perceptions of future threat and are aversive, leading potentially to maladaptive and debilitating behaviours (So et al., 2015). These emotions can be longer lasting and disorient attention from learning toward the source of stress, depleting attentional resources and infringing on cognitive capacities that are needed to support reasoning, decision-making, and memory (Tyng et al., 2017). Our findings suggest a host of environmental factors, beyond learning tasks and assessments act to elicit fear-based emotions. This was highlighted in our final round of focus group data collected during the onset of the COVID-19 pandemic in April 2020, where the multiple layers of interactions including financial concerns, care responsibilities, and study expectations embodied the emotion experiences:

It was this absolute emotional roller coaster; it has been the best and the worst thing I have ever done in terms of the financial impact. I can’t minimize that it has been incredibly hard; to have to keep a car on the road and a roof over your head and I have a husband and three children.

There is also worrying about money, as everyone is worried about money, and whilst we have been at home [during COVID] I haven’t worked now for 3 months so it is a difficult situation.

For other PGT students, social concerns provide a source of worry, anxiety, or distress. The following extracts highlight the role of emotion in navigating social contexts and identity formation (Stets & Serpe, 2016) and how attention to the social can disorient attention from learning:

On the course as well, while studying there are anxieties about personal relationships. I came in very confident that I will be very good social worker but at some point [during placements] that confidence went down because I didn’t know how to communicate with my co-workers. It was really stressful for me, and it made me very careful - like I had think to myself, OK I have to say it in a particular way, so they don’t misinterpret and that I felt was too stressful.

These cases emphasise emotion as the embodiment of the environmental conditions that define any experience and indicate a time relationship between the emotion episode and the duration of the event, which can threaten wellbeing through the ongoing taxing nature of these negative emotions on coping resources, attention depletion, motivation, and cognition (Harvanek et al., 2021; Robinson & Thomas, 2021; Tyne et al., 2017). This section of writing highlights what Dodge et al. (2012) refers to as a delicate balance between optimal wellbeing and capacities to cope, wherein emotion becomes a balancing point between stress and coping with implications to the study journey informing engagement vs avoidance behaviours. This is significant to our PGT student population who are an increasingly diverse and pluralistic population (Bird 2017; Stets & Serpe, 2016; HESA, 2019). The nature of the stresses they encounter during study are complex – linked to study and life circumstances, with the potential to be long lasting and to elicit multiple emotion experiences having implications to the student journey according to capacities to cope, the impact on the emotion-learning relationship, and wellbeing.

Within the anger emotion family, frustration was most frequently experienced. While the appraisal pattern for anger and frustration is similar in terms of arousal and perceived goal obstruction, the novelty and causal attribution pattern for each emotion differs with implications for the subsequent behaviours. Core anger emotions are sudden and directed outwardly, elicited in response to harmful or unwanted events and indicate low situational control (So et al., 2015). These are mobilizing emotions that motivate aggressive actions to try to eliminate the threat (Ekman, 2022). Unlike anger, frustration builds over time and in response to unpredictable events that can

be attributed to negligence directed toward self or other (Sander & Scherer, 2009). The intensity of frustration is relative to the appraisal of predictability and sense of justification and elicits a combination of emotion components including fear and disgust (Breuer et al., 2017). This is captured in the following PGT student's experience of feedback:

It is frustrating because [the feedback says], "You need to expand on your ideas." I can't expand it; I have run out of [allowed] words. Some of the comments are not necessarily useful because they don't suggest where you could clip one thing to expand another.

Frustration is an unpleasant emotion that can ultimately end in anger and lead to similar hasty decision-making, and antagonistic behaviours; the consequences of frustration can be far reaching, contributing to declining self-esteem, depression, and learned helplessness (Breuer et al., 2017; Sander & Scherer, 2009). For PGT students, study success depends on developing self-efficacy, and autonomy; these are attributes that support identity formation, motivation, effort, and persistence (Cisco, 2020), which are a foundation for master's level learning (QAA, 2018). Alternatively, unlike the heightened arousal and activation of anger which functions to inform hasty decision making, frustration, being less sudden, infers greater situational control; it provides opportunity for regulated thinking and for activating a productive approach to coping; in these cases, frustration can function to support proactive problem-solving to re-establish goal pursuit (Sander & Scherer, 2009).

4.1.2. Positive Emotion Dimensions

PGT students also experience a host of positive emotions. While negative emotions tax the emotion sub-systems through their demand on coping resources, positive emotions serve as a source of enjoyment (Strongman, 2003). They support optimal functioning, broadening prospective action tendencies through increased awareness and engagement (Fredrickson, 1998) with the potential to positively impact social relationships and cognitive complexity (Sander & Scherer, 2009). Positive emotion experiences arise through an appraisal process that evaluates an event as goal relevant, conducive, and pleasant (Sander & Scherer, 2009). Findings highlight positive emotion experiences that inform PGT study. These predominantly reside within the Happiness/enjoyment family of emotions and relate most frequently to *happiness* and *gratitude* (Fig. 3).

Happiness is an overarching term that represents the emotion family and is a core emotion. As a core emotion, it has been used synonymously with joy, elation, and enjoyment; it is indicative of an individual's sense of making progress toward goal achievement (Sander & Scherer, 2009). Happiness is considered more than a pleasant experience, having significant impact on motivation, social connectedness, prosocial behaviours, and productivity, it informs wellbeing (Sheldon et al., 2010). This makes it a significant emotion in PGT student experience, functioning to broaden engagement, relationships, and learning during PGT study. For PGT students, who are heavily goal committed, happiness provides motivation and resilience, two resources essential for productive coping during periods of perceived threat (Cohn et al., 2009). Findings suggest student happiness is informed by a sense of personal achievement at having overcome a challenge:

It is a challenge to find where it will take you, this, and I think because I love studying, I love reading, I love discovering, so it was very enjoyable, a challenge for me, and I can call it a challenge in my life because I've never been studying or doing something like that, so I have really a good experience and I wish that I will always remember this, I think.

It is further informed through the quality of relationships and learning experiences:

I find all the lecturers engaging and passionate about their subject. They make me excited about the subject and I WANT to learn more.

I love the way [the tutors] deliver the modules. I can say, maybe one was not good at all, but the other three, they were really perfect, and I love how I progressed, yeah, and I love how warm they are to us as online students, so someone you don't see often, but you'll connect always.

Within the Happiness family, gratitude is a commonly experienced non-core feeling state that has been conceptualized as an episodic emotion, a dispositional trait, and a coping resource (Shaver et al., 1987; Sander & Scherer, 2009). It is a pleasant emotion connected with hope, happiness, and contentment and infers an appraisal of benefit resulting from interpersonal events where the individual's perceived benefit is attributed to the efforts of another (Sander & Scherer, 2009; Seligman, 2018). In line with this definition, our findings suggest PGT students experience gratitude through a host of socio-culturally informed, institution-related, and discipline specific factors. One student expressed her gratitude at the cost savings she had found through her choice to attend this university.

'I told my husband I am really grateful I came to [—] because I can save money a lot. A lot of Indonesian students are on the scholarship, but they must work because it's not enough money to in London or Manchester Edinburgh. They say my flat is very cheap and I have one big living room and they only have studio, and it is double the money. And when they take me to lunch, oh my god it is £11 or £12, and I can get £7 for a buffet and everything.'

Other students expressed gratitude for the availability of quality university resources and social structures:

'The Wi-Fi - for us - we are very grateful because if you come to our country, it is not a good Wi-Fi but here the access - or the library - it is new thing for us and very modern.'

'Knowing that IT support system is there makes it easier to take a risk and try different things.'

Risk-taking is an important factor in PGT student learning. It is empowering and supports the development of confidence and self-esteem, which in turn inform optimal functioning (Rolfe, 2010; So et al., 2015). Furthermore, it is an avenue through which students

build confidence, and confidence is a key factor in coping with anxiety (Hanton et al., 2004). Risk-taking and being ambitious are a natural part of the post-university world, making this an important factor in adult learning (Whitton, 2018). This experience provides good insight into the interconnectedness of the various sub-systems, signalling the functional and consequential importance of positive emotions for developing core attitudes and coping resources that can be used to support wellbeing during periods of threat.

Distance learning students express gratitude for programme level approaches to building relationships:

'I was really grateful to be meeting face-to-face the people that we were going to be studying online with and make the connections and join the WhatsApp group and build that network that we needed going through.'

Equally, findings indicate PGT students experience gratitude through an awareness of personal growth and transformation credited to their student journey:

First of all, I am grateful for the experience and for the opportunity to take part in this programme and I feel that since I started, I have grown a whole lot and especially with the first two modules they were a confirmation of some of the things that I already knew but I didn't know how to articulate, and I didn't know that they are actually things.

Happiness emotions are a positive finding for PGT student experience. Happiness functions to support resilience, creative thinking, inter and intrapersonal relationships, motivation, and the ability to adapt to changing events. For PGT students who encounter an array of stresses during study (Coneyworth et al., 200; Strongman, 2003) these are all factors that support coping which will enable ongoing engagement with study and preserve positive wellbeing (Cohn et al., 2009; Lazarus, 2006a, Lazarus, 2006b; Seligman, 2018). The following excerpt provides context for how happiness can support wellbeing even during periods when an individual is uncertain of how to cope:

Although I was completely overwhelmed during the induction period, I was genuinely excited and deeply happy to be here!

Interestingly, *confusion* and *uncertainty* arose 21 times during the analysis, suggesting they are frequent states experienced by PGT students. However, their nomenclature as emotion states is contested in the literature and therefore, they were not included in the emotion prototype maps (Ellsworth, 2003; Hess, 2003). There is general agreement however, that each of these is a cognitive experience that shares a close connection with affect and elicits various emotional responses (Anderson et al., 2019; Tyng et al., 2017). This finding raises questions of the role these states have in PGT student experience and highlights future lines of inquiry.

4.2. Limitations

This study has investigated the role of emotion in PGT student experience using a multicomponent process guided by appraisal antecedents of emotion to better understand the implications of organismic subsystems on subjective experience. This approach infers a linear relationship between emotion processes (Lazarus, 1991; Roseman, 2013; Scherer, 2001) and, although providing relevant and useful evidence, does not afford opportunity for exploring the multi-directional interactions of the organismic sub-systems (Meuleman et al., 2019) and how these manifest different emotion experiences. This is an area for future investigation. Further, as noted in the discussion, the final focus group data was collected in April 2020, one month after the onset of the COVID-19 restrictions were implemented at universities in the UK. The authors acknowledge this may have had a heightened influence on participant emotion responses because of the situation. While the study findings support previous research highlighting the embodied nature of emotion (Robinson & Thomas, 2021), a further study specific to the role of emotion during COVID-19 is an area for future research. Lastly, findings from this study are limited through the fact that we report on perceived emotion experiences as expressed by students from one school as part of a student experience project and cannot be generalized beyond that. However, they can contribute to sector-wide discussions about the role of emotion in PGT student experience and how this can be used to support proactive approaches that support student wellbeing.

5. Conclusion

UK Universities increasingly focus attention on the importance of student wellbeing as a key factor in student success. The findings from this study reaffirm and extend previous research signalling this relationship (Ingram & White, 2020; White & Ingram, 2021) and highlight emotion as a core factor defining student experience. Findings confirm emotion is a central driver in student experience, entangled closely with learning and wellbeing, functioning synergistically with biopsychosocial cultural processes across various eco-systems and arising in response to an array of stressors that threaten, challenge, or benefit the student journey. In line with emotion research (Lazarus, 1991; Lazarus, 2006a, Lazarus, 2006b; Pekrun, 2014, 2019; Roseman, 2013; Rowe & Fitness, 2015, 2018; Sander & Scherer, 2009; So et al., 2015), study findings support a link between appraisal and emotion's adaptive qualities, having a deleterious or beneficial impact on student experience according to an individual's capacity to cope with perceived stressors. Findings suggest the cognitive mediational-evaluative component of emotion informs attention to an event – either broadening or disorienting its relationship with learning according to appraisals of relevance and functioning to heighten or disrupt the autonomous working of each sub-system with consequences to cognitive flexibility, motivation, and behaviour (Compton et al., 2004; Robinson & Thomson, 2021; Tyng et al., 2017).

Negative emotions threaten PGT student experience, disrupting essential aspects of wellbeing through the deleterious impact on self-esteem, confidence, sense of belonging, and social interactions, which consequentially disrupt quality learning through impaired cognitive flexibility (Compton et al., 2004; Tyng et al., 2017). They reflect heightened stress, which over the long term has negative

implications for health (Harvanek et al., 2021). Positive emotions broaden the capacity of each system and promote optimal functioning (Fredrickson, 2013). Cognitive functioning and social engagement are essential for PGT student success and support optimal wellbeing through an individual's capacity to meet goal outcomes. They contribute to the transformative learning that defines master's level study through their capacity to support creative thinking, problem-solving, critical discourse, decision-making, persistence, identity, and resilience, which in turn promote the transformation of knowledge structures, personality, feelings, and relationships with others (QAA, 2018; Stets & Serpe, 2016; Taylor, 2017).

In this study we conceptualize PGT student experience as an emotion-centric process underpinning wellbeing and driving learner success. Through our investigation we have sought to identify the feelings that PGT students experience and to use these as a foundation for exploring and better understanding the functional and consequential role of emotion in PGT student experience. As part of our research, we present a new methodological approach for exploring student experience beyond a measure of satisfaction, from which it is possible to discern the cognitive, motivational, and behavioural consequences for each felt experience. We propose this understanding contributes to the call for a paradigm shift in approaches to student wellbeing (AdvanceHE, & QAA 2021; Feldman & Newman, 2021; GuildHE, 2018; Razak, Wan & Sirat, 2017) through a focus on strengthening students' emotional awareness, competencies, and control and through which rests the potential for minimizing the adverse consequences of stress (Harvanek et al., 2021) that might otherwise threaten the student experience.

Our hope is our findings will contribute to sector-wide discussions shaping policy and programme directives that function to support student wellbeing through proactive approaches that build student agency over wellbeing and thereby contribute to UK Universities 2018–2023 strategic goal of maximizing their positive impact for students.

Disclosure Statement

The contents of this article present the authors' own work. All citations or paraphrased work have been included in the reference list. This work has not been previously published nor is it being considered for publication elsewhere. The authors declare no conflict of interest.

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