

**Assessing the Role of Emotional
Intelligence in Effective Doctoral
Supervision in a UK Higher Education
Context**

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Assessing the Role of Emotional Intelligence in Effective Doctoral Supervision in a UK Higher Education Context

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Abstract

The concept of Emotional intelligence (EI) has gained significant attention from several fields such as business, leadership and health care given the role it has on individuals and team performance (Boyatzis and Soler, 2012; Christianson, 2020). In the field of higher education (HE), pursuing a PhD is emotionally charged, especially for international students. Although the majority of the work on EI relates to business and management, which found that EI improves performance and individual satisfaction, there is a growing body of work that explores EI in an educational context (Vandervoort, 2006; Lee, 2008; Gilar-Corbi et al., 2018; Gunasekera et al., 2021). Despite the increased number of studies on EI in education, these studies have not thoroughly examined the ways in which EI manifests itself within the context of doctoral supervision relationships. This study aims to address this gap and look at EI from educational and linguistic perspectives. The aim of this study is to gain insights into how EI is portrayed through the experiences and viewpoints of both (UK-based) international students and supervisors. The study aims to understand how these experiences shape their perspectives on the role of EI in doctoral supervision and its impact on the supervisory relationship, both personally and academically. The field of EI is thus examined, here, from a linguistic perspective: this differs from previous EI-related studies, which are primarily psychological in focus. The study follows a mixed method approach, where data collection involves qualitative questionnaires and semi-structured interviews with 8 Algerian international PhD students and 5 UK-based supervisors. The data is analysed using a mixture of methods, namely, Thematic Analysis (TA) of the interview and questionnaire data, and Corpus Linguistic (CL) analysis of interview data, with close reading of some of the language used. The findings reveal that participants' understanding of EI varied from a lack of awareness to partial knowledge (with some having researched the topic previously). The findings also reveal the PhD to be perceived as a journey akin to an emotional roller coaster and (components of) EI to be a positive means of tackling students' struggles, including stress, anxiety, and a sense of isolation. In the doctoral supervision context, EI takes various forms according to students' and supervisors' perspectives and experiences.

EI interpersonal skills were observed in supervisors' showing concern for students' struggles and applying active listening as well as sharing similar experiences. Empathy was featured in this context by cultural sensitivity. Emotional management was sensed in supervisors' normalising their students' struggles, positively reframing them, and appreciating students' achievements. The study finds that developing rapport and effective communication are crucial aspects of doctoral supervision where EI skills helped supervisors be approachable to their students and tackle their reluctance to openly express themselves. This made students feel at ease and able/willing to voice their ideas and concerns. The linguistic analysis of interview data provided insights into how language use reflects emotional states and can influence communication in the context of doctoral supervision. The study also reveals that, in this specific context, not all negatively labelled emotions are bad emotions. For instance, students appreciate their supervisors applying certain levels of pressure to motivate them to work harder. Supervisors' intrapersonal skills were also valued in this context as this field has been found to incite various negative emotions such as frustration and anger, and the emotional awareness/management of oneself was deemed to be key in addressing these issues. The findings are used to advocate for both the provision of pre-sessional training in EI for Algerian PhD students and EI training for UK-based supervisors. This training would account for social and cultural factors and is argued to have the potential to improve the overall supervision experience for both parties.

Keywords: Emotional Intelligence (EI), interpersonal skills, intrapersonal skills, cultural sensitivity, doctoral supervision, Algerian International PhD students, UK-based supervisors.

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Dedication

I humbly thank Allah, the eternal source of mercy.

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1 INTRODUCTION

1.1 Overview

Over the past 30 years, Emotional Intelligence (EI) has been recognised as an essential quality for high performance Goleman, 1996; Gong et al., 2019). While it has been extensively studied in various contexts such as leadership, child development and healthcare (Goleman, 2013, 2021; Payton et al, 2000; McQueen, 2004; Janke, 2018), little attention has been given to its role in the supervisory relationship during the pursuit of a doctorate. The intellectual rigours of pursuing a PhD are predominantly documented and focused on in the literature (Doloriert et al., 2012), despite the fact that pursuing a PhD is an emotionally charged and challenging process, particularly for international students who are navigating a new educational and social environment. Therefore, this study aims to explore the significance of EI in the supervision process from the perspectives of both doctoral students and supervisors. By understanding the role of EI in this context, this study seeks to provide insights into the value it can add to the supervision process, thereby enhancing the overall PhD experience.

This chapter provides an overview of the study, outlining the context and background of the research in Section 1.2. Section 1.3 discusses the research problem and research motivation behind the study, while Section 1.4 outlines the research aims, objectives, and questions that will be addressed. The significance of the research is explored in Section 1.5, highlighting its anticipated contribution to the field. Finally, Section 1.6 presents an overview of the structure of the thesis, outlining the content of each subsequent chapter.

1.2 Research background

Developing EI is important in various fields, especially in business and leadership, where it leads to better employee's satisfaction and company performance. EI refers

to the ability to identify, understand, and manage one's own emotions and the emotions of others (Mayer et al, 1997; Goleman, 1999). It involves skills such as self-awareness, self-regulation, motivation, empathy, and social skills (Goleman 2001; Mayer at al., 2001, 2016; Petrides, 2010). Developing EI can lead to better relationships, communication and decision-making, and it is considered an important aspect of both personal and professional success (Goleman, 2001; Bar-On, 1997; Mayer et al. 2016). Section 2.2.2 of this thesis will highlight that there are several EI models, which have been developed to measure EI. Goleman (2001) suggests that all of these EI models share a core set of fundamental concepts. EI, in its broadest sense, relates to our ability to detect and manage emotions in oneself and others (*ibid*).

The literature in higher education have investigated the challenges faced by PhD students during their academic journey and focused on intellectual and technical qualities to do research (Herman, 2010; Baptista, 2014). The primary objective of these mechanisms is to ensure that students produce a successful PhD thesis as the ultimate (assessed) product of this process. Based on a survey conducted by Je and Ct (2019) on 6300 graduate students, it was found that 36% of the participants sought help for anxiety and depression. This highlights the significance of prioritising the psychological well-being of graduate students. Although these studies acknowledge that pursuing a PhD can be challenging, with students facing issues such as depression and anxiety, student-supervisor conflicts, and misunderstandings, the focus tends to remain centred around the match between students and supervisors in terms of shared research interests and knowledge backgrounds. While this is certainly important, it can overshadow the equally significant psychological and personal hurdles that students encounter while pursuing their doctorate. These obstacles can have a profound impact on a student's well-being and their ability to successfully complete their programme, and as such, they should be given greater attention in the research and support provided to PhD students. With the increasing number of international students pursuing postgraduate research in the UK, there is a growing demand for effective supervision of students from diverse backgrounds, and supervisors may lack the necessary skills to meet these demands. As a result, studies have shown high attrition rates among international students due to unsatisfactory supervision (Adrian-Taylor et al., 2007), difficulty adapting to the new environment, and a lack of preparedness for the new demands as a PhD student (see, e.g., Templeton,

2019; Evans and Stevenson, 2011). Moreover, recent studies highlighted the rapidly changing environment surrounding PhD research, which arguably leaves students prone to higher levels of depression, anxiety and loneliness, which can lead to students' leaving academia (Butler-Rees and Robinson, 2020; Hunter and Devine, 2016; Maher et al., 2020; Bramlage et al., 2021), highlighting the need for training programmes that support PhD students' emotional well-being and sense of belonging (Hunter and Devine, 2016).

While the PhD process has predominantly been discussed as a matter of intellectual operation, with a negligence of the psychological and emotional aspect surrounding it, some studies suggest that the personal and emotional aspects are crucial for its effectiveness (Wisker et al., 2010; A. Lee, 2012).

Quite a few studies have identified the aspects of emotional intelligence (EI) as an important factor in doctoral supervision (Gunasekera et al., 2021; Bui, 2014; Doloriert et al., 2012; A. Lee, 2012; Buirski, 2022). However, there are opposing views that argue against the integration of EI in HE, particularly for research students who embark on a journey to becoming independent researchers. According to this perspective, autonomy entails disregarding the emotional dimension and maintaining objectivity (Ecclestone and Hayes, 2009). Nevertheless, Ecclestone and Hayes's claim lacks empirical evidence compared to their counterpart scholars such as Mortiboys (2012). It is argued that changing learning environments introduces new risks since students must evaluate the meaning and importance of the everyday behaviours represented in the new learning context, which leads students to experience feelings of displacement, dislocation, isolation, and exclusion (H. Christie et al., 2008). Some scholars such asForgas (2008) see that isolating cognition from emotion is inconceivable, while emphasising that emotions should not be seen as a major impediment to logical thinking. Mayer et al. (1997) illustrate in their EI model the intricacies of the interconnections between emotion and cognition, wherein three of the EI associated abilities in their four-skill ability EI model (perceiving emotions, understanding emotions and managing emotions) pertain to cognition assisting emotion (see Section 2.2.2 for a more detailed discussion of this particular model). In EI, emotions require logical reasoning to function properly in a given situation, and the cognitive process requires emotional functioning to be productive. If the doctoral journey is designed to put students in a position of wonder, anxiety, stress and

discomfort as studies highlight (Laufer and Gorup, 2019), we might ask whether students are prepared to face their own crisis while pursuing their research, and whether supervision has the potential to navigate those dispositions and emotions and manage them effectively, especially when they seem to be moving towards (potentially) hazardous outcomes. Some studies accentuate the critical role of the supervisory relationship in providing support to students who seek emotional, intellectual or personal support (Posselt, 2018; Johansson et al., 2014; Doloriert et al., 2012), often before they turn to other services provided by their universities (H. Christie et al., 2004). This, according to those studies, is due to trust that has been developed between students and their supervisors during the supervisory meetings and process. Given the importance of the supervisory relationship in managing the emotional and personal challenges of the doctoral journey, it is essential to examine how it can be effectively leveraged to support students in navigating these difficulties. In this context, it is worth examining whether EI can also play a role in enhancing the effectiveness of the supervisory relationship in providing support to students. By leveraging the insights and skills of EI, supervisors may be better equipped to understand and respond to the emotional needs of their students, thereby fostering a more productive and fulfilling doctoral experience for all involved.

The PhD journey is marked by suffering and negative emotions (Skakni, 2018). Students experience various negative emotions such as stress and anxiety. While excessive levels of negative emotions can impede learning and academic achievement, moderate levels of negative emotions do not always pertain to negative outcomes or unpleasant results, as some scholars consider that, for instance, anxiety is an integral element in the PhD students' journeys quest for knowledge, given its ontological characteristic (Hendrix, 1967; M. Watts, 2001). Barnett (2007: 32) goes on to say: "being a student is to be in a state of anxiety". Having high EI is crucial in managing emotions effectively, as it is not about having only positive emotions or eliminating negative ones, but about using emotional information to guide cognitive performance and decision-making processes and manage positive and negative emotions in an accurate manner (John D Mayer, 2001; Manoranjan, 2018). Therefore, the purpose of this research is to determine if EI characteristics apply to the context of doctoral supervision and the PhD process in managing those emotions, and whether it has a positive impact on the students' satisfaction with the doctoral journey given that this journey is emotionally charged. Although studies indicate that emotion is an

integral part of the PhD (Aitchison and Mowbray, 2013), this domain has still been underexplored (Collins and Brown, 2021; Aitchison and Mowbray, 2013; Joseph et al., 2019) (see Section 2.3.1 and 2.3.3). Little has been investigated when it comes to emotions in doctoral research and supervision (Baptista, 2014), since these studies focus predominantly upon the intellectual aspect of the doctoral journey and neglect its emotional aspect (Herman, 2010). Because various EI characteristics are included in separate studies, the current study attempts to look at the broad picture, where all of these components are grouped together under the core concept of EI. The study also aims at looking at EI linguistically, by exploring the perceptions of students and supervisors when it comes to doctoral supervision context.

In his book *Emotional Intelligence: why it can matter more than IQ* (1996), Goleman argues that an employee with average IQ may be successful if they have high EI. On the other hand, an employee can have high IQ yet may be unsuccessful because they have low EI. Although this may apply in several cases as many studies supported this claim (Neqabi and Bahadori, 2012; Yusuf et al., 2019), it is important to consider whether this conclusion can be universally applied to all work circumstances. In view of the fact that there are jobs that require working under pressure given the competitiveness, workload or time-scheme, while others may be less intense where employees are not exerted to high-stakes environment or stress, and there are even jobs that do not primarily require high mental skills, it might be asked whether these studies have taken the circumstances into consideration. Lindebaum and Jordan (2012) question the studies that assert that EI improves all job performances, and yet appear to neglect two essential factors which are the context and the nature of the task. Their results revealed that EI impact can be seen at the interpersonal level and cognitive task level. In the context of construction, for instance, EI has a significant impact on improving relational performance, while it has a foreseeable influence at the level of cognitive task related performance, because EI in this case is more relevant at the social level. EI can play a significant role in improving relational performance, which involves the ability of individuals to establish and maintain positive relationships with others in the workplace (Goleman, 1996). While construction work requires a certain level of cognitive task-related performance, such as problem solving, planning, and decision-making, it may not require the same cognitive complexity and intellectual demands as higher education or academic research. In the context of construction, the ability to work well with others, communicate effectively, manage emotions, and

build positive relationships is often as - if not more crucial - than developing EI in this context. It can contribute to a positive and supportive work environment, which can in turn enhance the overall work, satisfaction and productivity of employees. A recent study by Gunasekera et al (2021) explores the impact of supervisors' EI on the psychological safety (PS) of doctoral students. PS refers to a sense of security that enables individuals to take social and emotional risks (Edmondson, 1999). It enables individuals to express their opinions, openly disagree, and raise concerns without worrying about facing adverse consequences. This concept fosters an atmosphere where people are motivated to share their ideas without the fear of being judged – something that is arguably crucial when it comes to the HE context. The study found, for example, that supervisors' EI plays a significant role in creating a psychologically safe learning environment for PhD students. This includes the ability to recognise and respond to the emotional needs of students, providing support and feedback in a constructive manner, and managing conflicts effectively. Students highly valued the stable and supportive relationship provided by their supervisors, even in the face of challenges like the departure of secondary supervisors and the global pandemic. The students expressed appreciation for the creation of a safe space, where they felt psychologically secure, understood, and driven to accomplish their goals. Indeed, one student metaphorically equated their supervisor to a parental figure, stressing the establishment of a safe and trustworthy bonds. The study emphasises the importance of EI in promoting positive student-supervisor relationships. While studies indicate the significance of EI in higher education, it is important to acknowledge that some scholars, such as Lindebaum and Jordan (Lindebaum and Jordan, 2012), caution against overstating its importance. They suggest that while EI may have relevance, it should be balanced with other factors in the academic context. Other scholars such as Ecclestone and Hayes (2009), have gone as far as to argue that within the context of higher education, there is a need to prioritise the cultivation of an intellectually driven individual, often at the expense of neglecting the emotional dimension in the pursuit of knowledge. According to Ecclestone and Hayes (2009), the focus should primarily be on developing abilities and intellectual capabilities, with less emphasis on addressing or integrating emotional aspects into the educational process. However, in light of the studies reporting the ongoing issues regarding the doctoral challenges and the effectiveness of supervision, which emphasised the need to focus on the psychological rigours of doing a PhD, it might be worth further investigating the implications of

ignoring the emotional aspect, considering the existence of these studies highlighting students' low completion rates, withdrawals, conflicts with supervisors and dissatisfaction with the PhD experience (Hunter and Devine, 2016; Maher et al., 2020; Bramlage et al., 2021).

Algerian students show a strong preference for France as their top study abroad destination, with around 79% of them choosing this country. As a result, several new reforms have been introduced to Algeria's higher education system to encourage studying abroad and foster international relationships with other countries. As part of the recent reforms in Algeria, the status of English has undergone a significant change (Haddam-Bouabdallah, 2022). Previously taught at the middle school level and later introduced in the primary school, English language teaching has now been granted a new status. Starting from September 2022, English was introduced at 3rd-year primary schools in Algeria, placing it on an equal footing with French., which may create a need for additional training for more students and potential instructors.

ESA (the Higher Education Statistics Agency) is a group of professionals in UK higher education who collect, verify, and disseminate information about higher education (HE) in the UK (see <https://www.hesa.ac.uk/data-and-analysis/students/where-study>). Their data includes statistics of international students enrolled in UK universities since 2014/2015 up to the present time. In 2014, the Algerian Ministry of Higher Education and Scientific Research made an agreement with the UK Higher Education to host 500 PhD students from Algerian English departments over a five-year period. This was the first effort to establish such an agreement. Despite the relatively small number of Algerian international students enrolled in UK universities, which amounted to 3500 students enrolled between 2014 and 2021, the statistics according to HESA indicated that the number is amplifying. There has been a shift in interest towards English language teaching, which led to this initiative of integrating Algerian PhD students in the UK educational system. However, few studies have been conducted to assess Algerian PhD students' experiences, and reports on the efficacy of this project are scarce. As a result, this research is aimed at providing an opportunity for Algerian students to express their perspectives on such experiences in order to provide insights for potential endeavours, and even for enhancing doctorate supervision in Algerian institutions. Given the recent increase in the number of Algerian international students enrolling in UK universities (Maita, 2019), there is a need to explore the role of EI in

the supervision of international doctoral students, specifically Algerian students, in the UK. While there is existing research on the importance of EI in the context of higher education (see, e.g., Gilar-Corbi et al, 2018), few studies have explored this in the specific context of supervising international doctoral students in the UK. Additionally, there is a lack of research on the experiences of Algerian PhD students in the UK and the potential benefits that could be gained from enhancing their supervision. This research seeks to address this gap by examining the experiences of Algerian PhD students in the UK and the role of EI in their supervision, with the aim of providing insights to potential improvements to doctoral supervision in both UK and Algerian institutions. As the literature review of this thesis will highlight, there are numerous studies indicating that the PhD journey is an emotionally challenging experience, and that the supervisory relationship is a key factor affecting students' attrition rates and satisfaction with the process. Additionally, some studies suggest a link between emotional labour and academic performance (Pope et al., 2012; Mohzan et al., 2013). Given these findings, it is pertinent to investigate whether EI is essential at both the relational and intellectual levels in the context of the current research, as a means of gaining insights into the perspectives of both students and supervisors regarding the relevance of EI in this particular context.

1.3 Research problem

While numerous studies have explored effective strategies for successful PhD research, most of these studies have focused on intellectual aspects of the PhD (Baptista, 2014). With an increasing number of international students' enrolment in UK universities, institutions face amplified demands with regards to language barriers, effective supervision, and inclusion in the academic community, etc (Maunder, 2018 Wisker et al, 2010). Although some studies have acknowledged the importance of emotion and EI in higher education (Gilar-Corbi et al., 2018), little attention has been paid to the emotional, personal, and cultural aspects of doctoral supervision. Therefore, this research aims to investigate the role of EI in doctoral supervision from the perspectives of doctoral students and supervisors, by exploring their views on the prevalence/use of EI. Previous research on EI has primarily focused on quantitative measures, such as questionnaires and self-report tests, to study this construct. However, scant attention has been given to the linguistic manifestations of EI, which

may provide a deeper understanding of how individuals express and regulate emotions in specific contexts. This study aims to address this research gap by investigating the linguistic expressions of EI in this context. This study is believed to be the first to explore EI from a linguistic perspective in doctoral supervision in this way. By examining the emotional, personal, and cultural dimensions of the doctorate process, this research seeks to identify the linguistic signals of EI as perceived by Algerian international students and their supervisors from UK universities, with the aim of providing insights into how supervisors may have used/drawn upon EI to effectively support such students (and, where relevant, address any challenges faced by them).

1.4 Study aims and research questions

Few studies have explored the emotional aspect and EI in the context of doctoral supervision of international students. Therefore, my study aims to add to the knowledge base with a specific analysis of the concept of EI within this particular context of doctoral supervision which includes students from an underexplored population (Algerian PhD students in UK HE context). Various studies on EI in HE has focused mainly on quantitative studies and regression analyses of various tests (Pope et al., 2012; Zhoc et al., 2020). This study, however, focuses on the experiences of both students and supervisors and their points of view when it comes to EI in the context of doctoral supervision. To the best of this researcher's knowledge, EI as a concept has not been analysed linguistically, as it will be in this study. Indeed, I aim to explore how EI is linguistically made manifest in a particular context (doctoral supervision). The study's primary aim, then, is to look at whether EI is present in this context and how/to what extent it is manifested linguistically (and how this relates to the skills, abilities and traits that are commonly discussed in the EI research literature: see, e.g., Sections 5.1; and 5.2).

In order to address the abovementioned research objectives, the following research questions are raised and addressed.

- 1- What are the Algerian PhD students and UK-based supervisors' understandings of EI?
- 2- What are the specific EI-related skills and behaviours exhibited by doctoral supervisors in this context?

- 3- How do PhD students and supervisors perceive the role of supervisors' EI in this supervisory relationship, and how does this impact students' academic success and well-being (if at all)?
- 4- How are EI associated skills framed linguistically in this doctoral supervision context?

The study entails qualitative questionnaires and semi-structured interviews with 8 Algerian international students and 5 UK-based supervisors. Thematic analysis of the interview and questionnaire data will be employed alongside corpus linguistic analysis of interview data to identify linguistic manifestations of EI in doctoral supervision context (see Section 3.5.1 for an explanation of thematic analysis). The scope of this study is limited to the context of Algerian international PhD students and their UK-based supervisors. The study focuses on the perspectives and experiences of these participants with regards to EI and seeks to explore the role of EI in the supervisory relationship and its impact on students' academic success and well-being. The study utilises both qualitative interviews and questionnaires, as well as corpus linguistic analysis to gain a deeper understanding of the research questions (the corpus linguistic techniques drawn upon are explained in Section 3.5.2). The findings may have implications for understanding the role of EI in doctoral supervision more broadly, but generalisation beyond the study's context will be limited to some extent due to the small number of participants and the specific Algerian context.

1.5 The study's significance

The significance of this study lies in its potential to improve the effectiveness of doctoral supervision, particularly for underrepresented populations such as Algerian international PhD students. The study seeks to explore the potential role of supervisors' display of EI in creating a supportive and productive supervisory relationship. By highlighting the differences in cultural norms, it may help supervisors to understand and adapt their communication styles to support their international students.

This study addresses several gaps in existing research. Firstly, it provides insights into the role of EI in the context of doctoral supervision, which has received limited attention in previous research. Secondly, it focuses on drawing attention to the perspectives of

both students and supervisors who are involved in the supervisory relationship. Thirdly, this study specifically examines the experiences of Algerian international PhD students, who are often underrepresented in existing literature on international PhD students' perspectives and experiences. Fourthly, it highlights the importance of considering the cultural context in which EI is expressed and interpreted. Finally, this study examines EI from a linguistic point of view to see how EI is manifested linguistically in the context of doctoral supervision (according to the perspectives of both PhD supervisors and Algerian PhD students). In addressing these research gaps, this study is hoped to be utilised as a reference to supervisors on the extent to which EI can be beneficial when it comes to supervising doctoral students, especially if they seek to understand the Algerian PhD students' challenges and are interested in whether EI can address these challenges. This study is also expected to benefit international students, and Algerian students in particular, who can use this research as a reference to what is expected from research students to pursue their PhD in a UK-based university. The intended outcome of this study is to help decision makers and institutional leaders gain insights into the challenges faced by Algerian international students and UK-based supervisors, as well as the potential mechanisms to address these challenges accordingly. Overall, this study has the potential to contribute to the advancement of research on the role of EI in doctoral student supervision and support the improvement of the overall doctoral student experience.

1.6 Thesis structure

This thesis is structured into 6 chapters that delve into an exploration of the role of EI in the supervision of Algerian international doctoral students enrolled in UK universities. The first chapter of this study serves as an introduction to the study's background, highlighting the significance of addressing the gap(s) in research relating to this topic (see Sections 1.1, 1.2 and 1.5). The research problem, aims, objectives, and questions are also presented in this chapter (see Section 1.3 and 1.4).

Chapter two is dedicated to a thorough review of the existing literature on EI and doctoral supervision. This chapter covers the emergence of EI, theories and models associated with it, and the tools used for measuring it (see Section 2.2). It also

examines studies on EI in the context of higher education, including those that identify the personal, emotional, and cultural dimensions of doctoral supervision (see Sections 2.3 and 2.4). This chapter concludes with an explanation of how the gaps in the literature informed the generation of the research problem.

Chapter three outlines the methodology used to address the research gap and problem(s). The chapter begins by explaining the research paradigm selected in this study (see Section 3.2), followed by an explanation of the data collection tools, process and analysis methods used in Sections 3.3, 3.4 and 3.5. This includes identifying key themes, patterns in language, concordances and collocations of some statistical keywords and statistical key semantic fields, as well as close reading of some of the identified patterns. Ethical considerations and researcher's reflections are also discussed in this chapter (see Sections 3.6 and 3.7).

Chapters four and five report and discuss the study's findings. Chapter four presents the data analysis of students' and supervisors' responses using a thematic analysis to address research questions 1, 2, and 3 outlined in chapter one (see Sections 4.1 and 4.2). Chapter five combines corpus analysis of data with close reading of some of the patterns in students' and supervisors' language to answer research question 4, by, for example, identifying the linguistic EI signals in doctoral supervision (see Sections 5.1 and 5.2).

Chapter six concludes the study by assessing the extent to which the study's aims were achieved (see Section 6.2). It also discusses the study's main contributions and limitations (in Sections 6.3 and 6.4), followed by implications of the study and recommendations for future research (in Sections 6.5 and 6.6).

In summary, this thesis explores the role of EI in the supervision of Algerian international doctoral students in UK universities. Through six chapters, the study provides a thorough examination of the literature, methodology, and findings on this topic, as well as a critical assessment of the implications and recommendations for future research.

2 LITERATURE REVIEW

2.1 Introduction

Emotional Intelligence (EI) research has gained momentum over the last three decades in a variety of sectors, including business and management (Boyatzis and Soler, 2012), health and social work (T. Morrison, 2007; Christianson, 2020), and child development (Payton et al., 2000; Ulutaş and Ömeroğlu, 2007). Although the majority of work on EI relates to business and management, there is a growing body of research that explores EI in educational settings (Mortiboys, 2012; Chechi, 2012; Gilar-Corbi et al., 2018; Fernández-Berrocal and Extremera, 2016; Swanepoel and Britz, 2017; Schlaerth et al., 2013). Scholars such as Gilar-Corbi et al (2018) have begun to take EI in higher education into account, arguing that academic knowledge, as well as EI, are both essential variables for instructors when it comes to their students obtaining satisfying outcomes. Such research in higher education tends to deal with EI in connection to classroom teaching techniques, such as Drew's (2006) study on the relationship between EI and student teacher performance, and Mortiboys' book *Teaching with Emotional Intelligence* (2012). Gilar-Corbi et al. (2018) highlight that skills that were promoted decades ago in university education addressing only intellectual skills are no longer sufficient, pointing to training that address the wholistic vision of a student with the inclusion of social and emotional skills.

As this thesis aims to explore the link between supervisory practices in Higher Education (HE) and EI by examining the supervision of Algerian PhD students in a UK educational context, and how EI might affect the students' satisfaction and performance, Section 2.2 (following) will highlight EI's emergence and its predominant theories. Section 2.3 will address EI studies in the HE context, and doctoral supervision in particular, with an emphasis on the emotional dimension and how this has led many studies to highlight EI as an essential component given the challenges surrounding the PhD journey. Section 2.4 will cover the cultural aspect within HE.

2.2 Emotional Intelligence: emergence and theories

Since the 1980s, our understanding of intelligence has been steadily growing, so that

it is now commonly regarded to constitute various skills (Gardner, 1983). This includes:

- Logical-mathematic intelligence, which refers to the ability to analyse situations rationally, undertake mathematical operations, and conduct scientific investigations.
- Bodily-kinesthetic intelligence, which is the ability to develop and use individual and physical competencies (Kivunja, 2015). In other words, it is “the ability to use one’s body in highly differentiated and skilled ways, for expressive as well as goal-directed purposes” (Gardner, 1983: 206). This is exemplified by athletes and actors who engage in high quality performances using their bodies but can be possessed by anybody to different degrees.
- Musical intelligence is another type among others that denotes the ability to process and compose music and rhythm.

Scholars believe these skills can have an impact on the human performance. EI has also been brought to the limelight since 1990, following Gardner’s (1983) introduction of multiple intelligences, in which EI was represented by personal intelligence, and has begun to have immense popularity in various fields such as business (Cherniss and Goleman, 2001) and health (McQueen, 2004; Janke et al., 2018). Education has also started to gain attention, when it comes to such skills (Chechi, 2012; Mortiboys, 2012; Gilar-Corbi et al., 2018).

EI is a term that has deep roots yet has only been recognised more broadly recently. The concept of EI itself constitutes two of the most debatable terms: emotion and intelligence. To some experts, when they are put together, emotion and intelligence are regarded as an oxymoron (Locke, 2005); two contradictory concepts, such as ‘cruel kindness’, ‘acting naturally’ or ‘dark light’ (Mayer et al., 2001). However, a shallow description of the term EI overlooks significant research in the fields of emotion and cognition that underpins its practical function. Research has shown that emotions require cognitive processing, as suggested by Lazarus (1991), and recent neuroscientific studies have further established that emotion cannot function without cognition or mental processing. Hence, it is pertinent to explore these two concepts in-depth before delving into the notion of EI itself.

2.2.1 Emotion concept

The concept of emotion has been the focus of debate among many scientists during the last two centuries. “Emotion” refers to the psychological and physiological changes that can influence human thought and behaviour (Strongman, 1974). Many researchers have sought to identify how humans experience emotion, especially psychologically (W. James, 1884; Respondek, 2020) and physiologically (Sze et al., 2010; Allport, 1922; Paul Ekman et al., 1987; Eckland et al., 2019). Yet, the research is not limited to these two fields, as there are also pertinent studies in areas such as sociology (Loderer et al., 2020) which explore the universality and cultural variation of emotion conceptualisations. Furthermore, more and more studies are trying to combine these various fields in order to achieve (what, from their perspective is) a clearer idea of how emotions function and influence the self and the other.

There are several recognised theories that discuss the process of generating emotions through the classification and interaction of its components: stimulus, physiological arousal, cognitive labelling, and the subjective experience of emotion. They include James-Lange theory (1884 & 1885, Cannon-Bard theory (during 1920s and 1930s, the Two-factor theory (1962), Lazarus' cognitive-meditational theory (1991). The James-Lange Theory (1884 & 1885) postulates that a certain event/ stimulus leads to a physiological arousal that leads in turn to the occurrence of emotions. For example, when a man sees a lion running towards him (the stimulus), his heart palpitations accelerate (physiological arousal), and this leads him to experience fear. The Cannon-Bard theory (during 1920s and 1930s) postulates that the stimulus leads simultaneously to physiological and emotional arousal. That is, when the person sees the lion, his heart beats fast, and he experiences fear at the same time. The Two-Factor theory, developed by Schachter and Singer (1962), suggests that, when a certain event happens, a physiological arousal occurs with the identification and labelling of the situation, then emotion follows that, i.e., that emotion cannot happen unless there is a cognitive labelling to the event. Simply put, when the man sees the lion, he trembles and his heart beats faster. He translates this as fear resulting in the production of the emotion of fear. Note, then, that the stimulus and the arousal have to be interpreted in order to produce emotion. Lazarus' cognitive-meditational theory (W. James, 1884) asserts that emotions are determined by the understanding or cognitive labelling of the event (stimulus). In essence, the man sees the lion,

determines that there is danger, then experiences fear and heart pounding later. According to the Lazarus' hypothesis of emotion, individuals respond to events as follows: cognitively first, emotionally second, and physically last.

Remarkably, all the above-mentioned theories agree on the underlying processes of the emotional experience: stimulus, physiological arousal, and emotional response. The main distinction is that there are some theories that include cognition as an essential component in the process of emotion, such as: Lazarus' cognitive-meditational theory and the two-factor theory. This difference has been explained from a neuroscientific view, in that there are emotions that require cognitive labelling and there are others that do not, depending on the paths the process takes in the brain (Fellous et al., 2002). Zajonc (1980) went on to give precedence to the emotional process over the cognitive one, whereby a person can experience a certain emotion such as fear before knowing or recognising the cause of that feeling, in that "when we try to recall, recognise, or retrieve an episode, a person, a piece of music, a story, a name, in fact, anything at all, the affective quality of the original input is the first element to emerge" (1980: 154).

William James theory (1884) suggests that we experience fear because we run (in the example of someone seeing a lion running towards them). A response to this theory is offered by Lazarus and Two-factor theory, where they consider that the cognitive appraisal is essential in the process of producing emotion. That is to say, the idea of recognising 'there is danger' is already there in the brain, after it is being triggered when a person perceives the external stimulus. This then is translated into physiological arousal and emotion (albeit to different classifications), which then leads them to behave in a certain manner, in this case running. Examining the physiological arousal process in the brain reveals its crucial role in assessing potential harm in response to an event, subsequently triggering the production of emotions. While some theories may downplay the significance of cognition, they inherently acknowledge the necessity of cognitive processing in determining the specific emotion to be generated in response to a given stimulus, as the physiological arousal requires cognitive evaluation for appropriate emotional responses (Phelps, 2006). In response to this, LeDoux (1998) argues that there are some emotions that require cognition - depending on the situation - while others do not. He explains that emotions that are more basic and related to survival, for instance, do not require cognition by claiming that the brain

detects danger before experiencing fear, while emotions that are more complex and related to social interactions do require cognition, such as love or hate that may require, according to LeDoux, a person to think about their past experience with the other person or event to love or hate them (1998). However, a study on the emotion of fear entitled *Emotional circuits and computational neuroscience* by Fellous et al. (2002), contends that cognition can have either a minimal or maximal contribution when it comes to the experience of emotion. They explain that there are two pathways through which the brain processes the stimulus of fear. The direct pathway: from the thalamus to the amygdala, and Indirect Pathway: from the thalamus through the cortex to the amygdala (*ibid*). The latter path is longer than the first one, thereby allowing more processing of the situation (for more information, see the research paper ‘Emotional Circuits and Computational Neuroscience’, Fellous et al., 2002). The multiple pathways from input processing systems to the amygdala provide biological insights that address concerns about the role of cognition in emotion (*ibid*). Although several forerunners of the concept of emotion excluded the role of cognition from the process, recent studies reveal that it is difficult to set them apart. Phelps (2006: 46) asserts:

As our understanding of the cognitive neuroscience of emotion and cognition grows, it is increasingly apparent that the division of human behaviour into emotion and cognition is not as clear as previous philosophical and psychological investigations have suggested. The mechanisms of emotion and cognition appear to be intertwined at all stages of stimulus processing and their distinction can be difficult.

According to Sibia (2013), emotions are not only biological, but also socially created and experienced in a specific socio-cultural context, and so emotions can only be completely understood on a social level of analysis, where emotional development is affected by the socio-cultural environment in which it occurs. Emotions, according to Wilutzky (2015), are pragmatic or epistemic actions that are intrinsically methods of interacting with one's social surroundings. Emotions, according to social constructionists, have significance and are experienced and expressed in a certain socio-cultural environment. Mesquita and Boiger (2014) argue that it is crucial to be aware that emotion construction is an ongoing, dynamic, and socially created process

within a given culture. These studies imply that emotions may be viewed differently within and across cultures given they are social constructions. For instance, emotions of fear can be viewed as a tool that prompts someone to take actions for achieving a specific goal, such as running. Furthermore, emotions can be viewed as a means to acquire knowledge and understand the world, as emotions sometimes can help us learn from experiences and gain insights into our thoughts and feelings. Additionally, emotions can be shaped and influenced by social and cultural factors, as cultures have different emotional norms and expectations, which can influence how individuals experience and express emotions. In a study conducted by Lerner et al. (2015) that reviewed 35 years of research on emotion and decision-making, it was found that emotions are powerful, pervasive, and often predictable drivers of decision making. The study also showed that emotions can have both positive and negative effects on decision-making and are not always a result of heuristic thinking. Additionally, emotions can be rapidly triggered and can prompt swift action.

With an understanding of the intricate interplay between emotion and decision making, it is pertinent to venture into the captivating domain of intelligence. The next section will investigate the diverse dimensions of intelligence and the ways in which it intertwines with emotional processes.

2.2.2 Intelligence concept

The second component comprising EI is intelligence. Cognition plays a pivotal part in intelligence. In fact, the two terms are sometimes used interchangeably. Raab postulates that: "... in some sense, it could be argued that cognition and intelligence are synonymous, and that all work in cognitive psychology is about the psychology of intelligence" (Raab, 2005: 276). Within the field of intelligence research, the diversity of definitions aligns with the multitude of researchers engaged in the exploration. Many of these researchers try to provide conceptualisations and measurement tools via which to make sense of intelligence despite the fact that it is difficult to define. According to Binet and Simon (as cited in Legg and Hutter, 2007: 03):

... It seems to us that in intelligence there is a fundamental faculty, the alteration or the lack of which, is of the utmost importance for practical life. This faculty is judgement, otherwise called good sense, practical sense, initiative, the faculty of adapting oneself to circumstances.

One of the most well-known definitions of intelligence is by Wechsler (1958: 07): "intelligence is the aggregate or global capacity of the individual to act purposefully, to think rationally, and to deal effectively with his environment", that is intelligence is interlinked with individuals' personality and adaptive skills. Another definition is offered by Gardner in his theory of multiple intelligences. Gardner (2000:34) refers to intelligence as the mixture of an individual's own genetic heritage and their life's condition within a certain culture and time: "the biopsychological potential to process information that can be activated in a cultural setting to solve problems or create products that are of value in a culture". Similarly, Stangor and Walinga (2018: 429) indicate that: "intelligence is the ability to think, to learn from experience, to solve problems, and to adapt to new situations". Although there are numerous definitions of intelligence, they all attempt to convey the same idea in different ways, thereby indicating a certain level of agreement among them that intelligence is a multifaceted concept that refers to the ability to learn, solve problems and adapt to situations. The development of intelligence can be influenced by a combination of genetic and environmental factors (Bartels et al., 2002). Intelligence can encompass a multitude range of cognitive abilities, including perception, attention, language, memory, and decision-making (Sternberg, 2021).

Alongside the considerable effort on the part of researchers to demystify and conceptualise intelligence, some of them tried to provide measurement tools for such ability. In the early twentieth century Binet and Simon (1916) developed intelligence tests to measure the likelihood a student might be a better learner or less. For them, intelligence is defined as the ability to accomplish these tasks. The tests involved a variety of questions that ask participants to define words, compare items, complete sentences, and reproduce a drawing from memory. Although these areas seemed different, they evaluated the basic abilities of reasoning and understanding (T. Simon and Binet, 1915; Siegler, 1992), in the sense that the students who could answer one of the test items correctly tended to answer all the remaining items correctly. This led the psychologist, Charles Spearman, to denote the construct that measures various

types of skills as a ‘general intelligence factor’ (*g*) in his two-factor theory of intelligence (Williams et al., 2003). At that point, almost all psychologists believed in the existence of a generalised intelligence factor *g*, which is concerned with abstract thinking and encompasses the ability to acquire knowledge, think abstractly, adapt to unexpected situations, and profit from institution and experience. Following this, many attempts have been made with the aim of discerning aspects of *g* such that specific skills encompassed within *g* can be identified as a distinct type of intelligence. This is referred to as specific factors of intelligence (*s*) (Spearman, 1927; Williams et al., 2003). Among various distinctions, there is fluid intelligence and crystallised intelligence developed by Cattell (1963), which refer respectively to the ability to acquire new ways of problem solving and the accumulated knowledge learnt throughout one’s lifetime. Gardner (1983) claims that there are various types of intelligences, among which is the personal intelligence that refers to an individual’s ability to deal with their own feelings, and those of others around them, in which this type of intelligence is divided into two further categories: intrapersonal that pertains to the self, and interpersonal that is concerned with the other.

Having explored the multifaceted nature of intelligence, it is pertinent to direct our attention to a specific form of intelligence that encompasses the understanding and management of emotions, known as emotional intelligence (EI). EI is a different label to the personal intelligence that has gained prominence. When EI was initially established, EI developers challenged the widely held assumption that IQ is the only characteristic that predicts success (Bradberry and Greaves, 2009). EI came to answer several questions that perplexed the researchers who discovered in their research that about only 20% of the time do individuals with the highest IQs outperform those with average IQs, while 70% of the time those with average IQs outperform those with high IQs (*ibid*). EI was found to be the key factor (Lopes et al., 2006).

2.2.3 Emotional Intelligence (EI): Models and measurement tools

The roots of EI can be traced back to Thorndike (1920). Thorndike introduced the concept of “social intelligence” as a separate form of intelligence, to describe a person’s ability to understand people’s emotions and act on them wisely. His attempt to establish a new type of intelligence failed, however, due to the criticism his theory

faced from scholars at that time who considered emotions to be a hinder to logical human behaviour and believed that emotions cannot be measured in the same way as ‘general intelligence’. Being put in a contradictory position to intelligence, some theorists such as Young (1943) tended to describe emotion as a disturbance that makes individuals lose control. Although this seems to relegate the idea of social or emotional intelligence to oblivion, in fact, it paved the way for other scholars to contemplate the other latent attributes that were ignored in the traditional tests of IQ, and to begin considering how these qualities may have an impact on overall human behaviour.

In 1983, Howard Gardner (1983) introduced the idea of multiple intelligences in his book *Frames of Mind*, the central tenet of which is that intelligence is not one single type of intelligence; rather, many people have many different types of intelligence (albeit to different degrees). In Gardner’s book, EI is represented by two types of intelligence: ‘intrapersonal intelligence’, which is the ability to understand one’s own emotions, and ‘interpersonal intelligence’; that is a person’s ability to understand others’ emotions (Gardner, 1983). Mayer et al (2001) build on the idea that EI makes use of both emotion and cognition arguing that they facilitate one another to produce a higher level of reasoning and decision making. Mayer and colleagues highlight some suggestions on how emotion can assist cognition, such as that it helps designate whether one problem is more important than another, and helps make interruptions when necessary (Easterbrook, 1959; Mandler, 1975; H. A. Simon et al., 1982). Taking an example of a student at the library fully concentrating and ignoring anything around him, he may feel an increasing anxiety, and once hearing a phone ringing from a distance, he may remember that he planned to call his parents around that time (Mayer et al., 2001). Mayer and his colleagues (2001) suggest that mood change also helps to refresh and reset the cognitive system. Emotion can also work as a ‘second memory store’ (*ibid*). For instance, a person may want to communicate regret through his painting. So, he tries to recall a situation when he experienced regret. Through recreating the same feeling, he may be able to better depict it in his painting. And by virtue of this, Mayer attributes some of the foundation of EI to the contribution that the field of cognition and affect has made by shifting from viewing emotions and cognition as interacting in pathological to normal ways (Mayer et al., 2001).

In 1990, the concept of EI was first coined by Salovey and Mayer accompanied with a

theory and a measurement tool. They claimed EI is a subsection of social intelligence (Salovey and Mayer, 1990; John D Mayer and Salovey, 1993). Subsequent to that, the concept of EI has gained more popularisation with the publication of Daniel Goleman's book (1996) entitled *Emotional Intelligence: why it can matter more than IQ?*. Overall, there are three major models of EI: Mayer et al's (1999) ability model, Goleman's (2001) mixed abilities model, and Bar-On's (1997) trait model. According to Mayer et al, EI focuses on four human abilities (Mayer and Salovey, 1997; Salovey and Mayer, 1990). They define EI as:

the ability to perceive accurately, appraise and express emotions, the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotions and emotional knowledge and the ability to regulate emotions to promote emotional and intellectual growth.

(Mayer and Salovey, 1997: 10)

They explain EI as a purely cognitive processing of emotion:

- 1) The initial stage of EI ability model focuses on the capacity to perceive and express emotions. This involves effectively receiving emotional information from oneself and others and expressing it in an appropriate manner.
- 2) The ability to use emotions to facilitate thinking picks up on how a person can use their emotions to enhance cognitive abilities and as a result improve their performances and decisions.
- 3) The ability to understand emotions captures an individual's understanding of their own and others' emotions and the understanding of complex emotions and their transition from one to another. Every emotion can transmit various meanings and messages. It is the ability to identify the reason behind the occurrence of emotions which is important in this case.
- 4) The ability to manage emotions of oneself and others: the effective management of emotions necessitates a proficiency in the previous three skills: expressing feelings, understanding and wisely applying emotions to improve actions. This leads to the ability to regulate the feelings of a person and their ability to regulate others' feelings and emotions to enhance personal growth and social relationships.

The MSCEIT (Mayer Salovey Caruso Emotional Intelligence Test) is the EI model that

was developed by Mayer and his colleagues (2003). They consider the perception of emotions to be the least complex ability, explaining why it is placed at the bottom, while management of emotions is placed at the top (because of being the most complex, in their view). They also make a distinction among these four branches. While branches 1, 3, and 4 pertain to reasoning about emotions, the 2nd branch of using emotions pertains to using emotions to enhance reasoning (Mayer et al, 2001). This EI ability model is renowned for its scientific validity and emphasis on pure abilities, excluding personality traits, with objective skill measurements (O'Connor Jr and Little, 2003). Nevertheless, criticism has been directed at this model regarding the mechanisms for determining correct answers and its correlation with other EI models like Bar-on and Goleman (Pérez et al., 2005; Van Rooy et al., 2005). It has also been criticised for lacking cultural variation sensitivity (Salovey, 2006). According to Huynh et al's (2018) research, doubts have been raised regarding the validity of the EI ability model. They argue that the emotion facilitation and emotion regulation components of EI seem to overlap in their effect. In support of this claim, several studies have indicated that measuring EI without considering emotion facilitation yields more accurate results (Rossen et al., 2008; Palmer et al., 2005; Newman, 2008). By virtue of this, various scholars, such as Newman (2008) and Mikolajczak et al (2020) attempted to develop EI models based on Mayer et al's model. Newman (2008) developed a three branches model in which he drew upon the MSCEIT ability model with merging emotion facilitation ability within emotion regulation ability. They describe their model as cascading since, for them, emotion perception is a requirement for emotion understanding, and the latter, in turn, is required for emotion management.

Bar-On's (1997) model lays stress on the following skills: Emotional self-awareness, Self-actualisation, Interpersonal relationship, Reality testing, Stress tolerance, Optimism, Happiness, etc. It forms five branches which capture fifteen sub-branches.

- Intrapersonal: Self Regard, Emotional Self-Awareness, Assertiveness, Independence, and Self-actualisation.
- Interpersonal: Empathy, Social Responsibility and Interpersonal Relationship.
- Adaptability: Reality Testing, Flexibility and Problem Solving.
- Stress Management: Stress Tolerance and Impulse Control.
- General Mood Components: Optimism and Happiness.

According to Bar-On, his model of EI has been shown to improve with age and training. His model exhibits progressive growth over time, with the possibility of further improvement through deliberate training interventions. According to this model, emotional and cognitive intelligence contribute equally to overall intelligence and hence to a person's success in life (Bar-On, 1997). In Bar-On's model, skills such as self-awareness, empathy, flexibility and problem solving can be directly related to EI, while traits such as assertiveness and self-actualisation can overlap with personality traits and EI. Thus, this model has been criticised for not relating to either emotion or intelligence, and for overlapping with other personality traits measurements (Zeidner et al., 2004), which undermines good scientific practice (John D Mayer et al., 2008).

Goleman's model (2001) focuses on emotional self-awareness, self-control, empathy and problem solving. He added other aspects related to the context of workplace achievement. He assumes that; in the business field, successful leaders tend to have high EI. The model is built upon four main branches that comprise of several competencies:

Self-Awareness:

- Emotional self-awareness: reading one's own emotions and recognising their impact; using "gut sense" to guide decisions.
- Accurate self-assessment: knowing one's strengths and limits.
- self-confidence: a sound sense of one's self-worth and capabilities.

Self-Management:

- Emotional self-control: keeping disruptive emotions and impulses under control.
- Transparency: displaying honesty and integrity; trustworthiness.
- Adaptability: flexibility in adapting to changing situations or overcoming obstacles.
- Achievement: the drive to improve performance to meet inner standards of excellence.
- Initiative: readiness to act and seize opportunities.
- Optimism: seeing the upside in events.

Social Awareness:

- Empathy: sensing others' emotions, understanding their perspective, and

- taking active interest in their concerns.
- Organisational awareness: reading the currents, decision networks, and politics at the organisational level.
- Service: recognising and meeting follower, client or customer needs

Relationship Management:

- Inspirational leadership: guiding and motivating with compelling vision.
- Influence and communication: wielding a range of tactics for persuasion.
- Developing others: bolstering others' abilities through feedback and guidance.
- Change catalyst: initiating, managing, and leading in a new direction.
- Conflict management: resolving disagreements.
- Building bonds: cultivating and maintaining a web of relationships.
- Teamwork and collaboration: cooperation and team building (Goleman et al., 2013: 39).

According to Daniel Goleman, EI is a worthy desire in and of itself since it produces good citizens who can operate well in a diverse and challenging environment. Pool (1997) opines that the good citizen is a person with a high level of EI. Using Goleman's EI model, it has been demonstrated that EI competencies improve work performance and that EI may be learned at any age (Goleman, 1998). Furthermore, Goleman claims that it is not required to be proficient in all 18 EI competencies (Cherniss and Goleman, 2001; Druskat and Druskat, 2006). Goleman et al (2013) consider these EI qualities learned skills rather than innate talents, and that each one contributes in a different way to making leaders more logical and hence more successful. They insist that emotionally intelligent leaders do not necessarily possess all EI abilities. They claim that effective leaders often have strengths in at least one competency from each of the four core components of EI, and the more competencies they possess, the more successful they become. However, this approach has been criticised for evaluating personality characteristics and relying on self-assessment tools, as well as for lacking empirical evidence to support the claim that EI improves performance (Mayer et al., 2016). Goleman's integration of Salovey and Mayer's model of EI with additional personality traits has faced criticism from the proponents of the ability model, such as Mayer and colleagues (2008). They argue that the inclusion of these traits by Bar-On and Goleman could hinder the progress of the EI field. Bar-On and Goleman

developed models that encompassed a range of skills and personality traits, which Mayer and his colleagues believe might impede the focused development of EI as a distinct construct (*ibid*). They claim that these traits do not relate to emotion, intelligence or EI, given that emotions are organised responses or reactions to events, while personality traits are characteristics or preferred ways of behaving. They also claim that including these traits among many others was not justified by these scholars, since personality tests have their own established frameworks and theories, such as the Big-five personality model. Thus, the inclusion of personality traits within the realm of EI could lead to an overlap and redundancy (*ibid*). Mayer and his colleagues (2008) argue that EI should focus primarily on the cognitive abilities related to emotion perception, understanding and management. Additionally, they categorise these mixed models under social competences or ego strength rather than EI because they believe they deviate from the EI field; there is no guarantee that specific qualities will be included above others, because the added features may be a component of a wider spectrum of traits. Thus, rather than providing clarity about what EI actually entails, these mixed models may instead increase confusion (Mayer et al., 1999). Unlike Goleman's mixed model and Bar-On's trait model, Mayer, Salovey and Caruso, have sought to link the concept of EI to the scientific conceptualisation starting from emotion as a separate field as well as intelligence and then trying to make an objective version of EI relying on the scientific background of both emotion and intelligence. With a promising model, their approach to EI appears more reliable and objective (Conte, 2005). However, these EI models may not adequately consider cultural variations in emotional expression, perception, and understanding. Cultural norms and values influence the ways in which emotions are experienced, expressed, and interpreted across different societies (Paul Ekman and Friesen, 1971). Therefore, a model that does not account for cultural differences in EI may have limited applicability and relevance in diverse cultural contexts (Scott-Halsell et al., 2013). This criticism highlights the need for culturally sensitive approaches to studying and assessing EI to ensure its validity and effectiveness across different cultural backgrounds. This limitation is particularly significant because cultural factors can greatly influence the expression and interpretation of emotions. Despite this limitation, exploring the relationship between different EI skills can provide valuable insights into understanding emotional functioning across diverse cultural contexts.

2.2.3 The relationship between EI associated skills and competencies

With all these points of commonality and disagreement, there is still the idea that EI entails intrapersonal and interpersonal skills, with self-awareness or emotion perception as the basic skills, and emotional management or relationship management at the top of the EI skills hierarchy. The highest level of EI is relationship management, which necessitates the other EI components. This is believed to be because the other three aspects must also be sufficiently high, since someone who masters relationship management would need/have a high level of EI. In Goleman's model (2013), Self-awareness is the lowest level of EI since it is a precursor for the other three dimensions, while on the other hand self-awareness is a requirement for the other three dimensions. Figure 2.1 below shows Goleman's EI model and the intersection between the various EI competencies.

	Self Personal competence	Other Social competence
Recognition	Self-awareness <ul style="list-style-type: none"> - Emotional self-awareness - Accurate self-assessment - Self-confidence 	Social awareness <ul style="list-style-type: none"> - Empathy - Organisational awareness - Service
Regulation	Self-Management <ul style="list-style-type: none"> - Emotional self-control - Transparency - Adaptability - Achievement - Initiative - Optimism 	Relationship management <ul style="list-style-type: none"> - Inspirational leadership - Influence and communication - Developing others - Change catalyst - Conflict management - Building bonds - Teamwork and collaboration

Figure 2.1: Goleman's EI domains and associated competencies (adapted from Goleman, 2001: 28)

A review of several EI models demonstrates that scholars accept that EI competencies are related to one another and that understanding oneself, which necessitates self-awareness, is essential for understanding human nature. A person becomes aware of their emotions and how they affect them when they are emotionally self-aware. This enables this person to communicate with people and connect with them. As Figure 2.1 above indicates, Goleman and Cherniss have found in one of their studies (2001) that Emotional Self-Awareness is a requirement for effective Self-Management, which

predicts stronger Social Skill in a study of data on workplace effectiveness. A supplementary pathway connects Self-Awareness, Social Awareness (especially Empathy), and Social Skill as Figure 2.1 shows. Managing relationships effectively, then, need a foundation of Self-Management and Empathy, both of which require Self-Awareness. A neurological study by Damasio (1994) found that Empathy and Self-Management are the foundations for social efficacy, in which patients with lesions in the prefrontal-amygala circuits responsible for both Self-Management and Empathy show significant impairments in relational skills despite having intact cognitive ability. This indicates that there is a complementary and hierarchical notion among EI skills and abilities. This capacity to recognise and comprehend one's own emotions qualifies the individual to recognise and understand the emotions of others (Sinha and Sinha, 2007). According to Goleman's framework, EI intrapersonal aspects feed into interpersonal aspects, in which one cannot recognise and manage others' emotions if they are unable to recognise and manage their own emotions, i.e., Empathy and effective emotional management both depend on self-awareness since we can only understand others' emotions if we are aware of our own.

The bulk of criticism the field of EI has received pertains to the diverging assessment tools, with continuous revision of models, and tendency of adding, removing and blending competencies within EI models such as Goleman's model (which started with 25 competencies, then reduced them to 20, then to 18), and Mayer and colleagues' model that has been recently updated in 2016. This may lead sometimes to confusion as Mayer and colleagues have claimed (Mayer et al., 2008; Mayer et al., 2016). For instance, the ability model also has been accused of redundancy of some EI competences. In their critique of the MSCEIT ability model, Huynh and colleagues (2018) argue that the utilisation of emotions to enhance cognitive processes can be considered a type of emotion regulation rather than a separate skills in itself.

Mayer and Salovey's ability model focuses on the relationship between emotion and cognition, i.e., EI focuses on how emotion and intelligence work together to provide a higher level of cognition, information processing of emotion, and, perhaps, to improve feelings (Forgas, 2008). That is, emotion and intelligence are interwoven, Hence, it is impossible to determine when emotions transcend intelligence or vice versa, or it may be unfair to place them in this position of contradiction, since they complement each other (Mayer et al, 2001). Goleman's competency-based model, on

the other hand, focuses on which qualities contribute to performance (Christie et al., 2007). In essence, the EI ability model (MSCEIT) focused on the cognitive abilities related to emotion and intelligence, while Goleman's competency model extends beyond the cognitive abilities to encompass a broad range of skills and traits that contribute to performance. Despite these differences, the various EI models share aspects such as self-awareness, emotion management, empathy and social skills. All of these various EI models, according to Goleman, share a common core of fundamental concepts, that is EI, in its broadest sense, relates to our ability to detect and manage emotions in ourselves and others (Goleman, 2001). These shared elements demonstrate a common ground in the understanding of EI. The next section will highlight the main tools to measure EI.

2.2.4 EI measurement tools

A systematic review of forty different instruments to assess EI by Bru-Luna et al (2021) reveals that the Emotional Quotient Inventory (EQ-i), Schutte Self Report-Inventory (SSRI), Mayer-Salovey-Caruso Emotional Intelligence Test 2.0 (MSCEIT 2.0), Trait Meta-Mood Scale (TMMS), Wong and Law's Emotional Intelligence Scale (WLEIS), and Trait Emotional Intelligence Questionnaire (TEIQue) are the most used tests. The challenge of choosing measurement tools to assess EI comes along with the many EI models in the literature. Each measure seeks to assess EI in accordance with how this concept was originally conceptualised by EI scholars, whether as a pure ability, a trait, or a mixture of traits and abilities. For instance, the ability model assesses individuals' understanding of emotions through a variety of tasks that demand them to solve problems which relate to emotions. Following that, answers are classified as correct or incorrect. While self-report tests and questionnaires typically present test takers with statements such as '*other people tend to confide in me about personal issues*', requiring them to assess the extent to which the statement accurately reflects their own experiences. This assessment is usually done using a 5-point Likert scale, allowing individuals to rate the degree of accuracy or agreement with the given statement.

Mayer and his colleagues (1999) who developed the MSCEIT, claimed EI fits within the criteria of intelligence using a measurement tool that emphasises maximal

performance, while others used self-report tests such as Emotional Quotient Inventory EQ-i (Bar-On, 1997); Self-Assessment Questionnaire (Boyatzis and Goleman, 1999). However, there were several critics of the ability model's approach to assessing scores based on expert judgment and group consensus. Mayer and his colleagues argued that their ability model is in its preliminary phase, and it is adaptable (Mayer et al, 2001; Mayer et al, 2004). They argued that the ability model is advancing each time, and they admit "significant gaps in knowledge" (2008). However, it is worth noting that several scholars (Roberts et al., 2001; Pérez et al., 2005) questioned the degree to which these responses were "accurate". The scoring according to this measurement tool depends on a comparison of a test taker's responses to those responses of others who have taken the same test. The MSCEIT relies on expert consensus to establish the correct answers for its scenarios and questions. Tests takers' responses are compared to the consensus answers determined by experts to assess their alignment with established emotional reasoning patterns. Furthermore, other scholars are cautious about the use of MSCEIT as it is found to be an easy task for persons high and medium in EI. In this regard, it was recommended for testing people low in EI especially "clinical subsamples that are expected to be below average on EI" (Fiori et al., 2014: 08). A study by Di Fabio and Kenny (2012) to assess the validity of ability and mixed model assessment instruments suggests that the mixed model conceptualisation of EI was found to be meaningful in explaining aspects such as decision-making. When compared to ability EI measures, a person's assessment of their emotional skills and personal qualities were found to be significant in determining the choice of decision-making styles when using self-report tests.

Although the ability model of EI faces criticism from its opponents, it is widely regarded as a promising and significant model by many scholars (Conte, 2005) with the patent of allowing updates frequently. In an attempt to establish a more accurate and up to date measurement tool and to achieve its validity, Mayer and colleagues (2016) have made updates to their model through reconceptualising the skills related to EI; in which they have added more problem-solving attributes and have clarified its relationship to other types of hot intelligence. It is worth mentioning as well that they have made a distinction among EI, social intelligence and personal intelligence; EI is not anymore a subtype of social intelligence, hence they consider those three types represent broader areas of hot intelligence that stand side by side with cold intelligences (such as Mathematic, special and tactile intelligence) to embody the aggregate umbrella of

general intelligence (Mayer et al., 2016). Not to mention that the three hot intelligences may be of “comparable complexity in that they all involve human cognitive reasoning of an equally sophisticated nature” (Mayer et al., 2016: 11), which would pave the way for research to develop measurement tools for social and personal intelligences that may help in a clearer distinction for each type. Nevertheless, in relation to the ability EI model, a critique has emerged suggesting that the claim that the MSCEIT measures ability is unfounded. Instead, it is argued that the ability model of EI primarily assesses knowledge and the level of adherence to commonly recognised social skills patterns (Matthews et al., 2014). Self-report tests, on the other hand, have drawn more criticism since people have a tendency to embellish their responses in an attempt to appear as competent and successful as possible, which may lead them to lie or have biased answers (Helmes et al., 2015). As a result of the existence of this difference in viewing EI as pure ability or trait, Vesely and colleagues (2018: 01) draw the conclusions that EI has been described in the literature in two different ways. One perspective sees it as a dispositional tendency, similar to a personality trait, known as trait EI (Petrides and Furnham, 2001). The other perspective views it as an ability that is moderately connected to general intelligence, known as ability EI (Mayer and Salovey, 1997).

Table 2.1 below summarises some of the main EI measurement tools.

	Commonly Used measures of Emotional Intelligence	Brief Description	Model of Measure	Main Theorist
1	Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT)	Specific tasks are used to measure level of ability of each branch of emotional intelligence.	Performance based	Mayer and Salovey
2	Emotional Quotient Inventory (EQ-i)	133 self-report items measure total EQ and each of the 5 components of the Bar-On model	Self-Report	Bar-On
3	Emotional Competency Inventory (ECI)	A multi-rater instrument that provides ratings on a series of behavioural indicators of emotional intelligence	Self-Report and Other-Report	Goleman
4	Emotional Intelligence Appraisal (EIA)	A 7-minute assessment meant to measure the existence of Goleman's four components of emotional intelligence	Self-Report and Other-Report	Goleman

5	Work Profile Questionnaire-Emotional Intelligence Version (WPQei)	Measures 7 of Goleman's competencies thought of as most essential for effective work performance	Self-Report	Goleman
6	Self-Report Emotional Intelligence Test (SREIT)	A 33-item measure of Salovey and Mayer's original concept of emotional intelligence	Self-Report	Mayer et al.
7	The Levels of Emotional Self Awareness Scale (LEAS)	Self-report measure based on hierarchical generalisation of emotional intelligence like physical sensations, action tendencies, single emotions and blends of these emotions.	Self-Report	Lane and Schwartz
8	The Genos Emotional Intelligence Inventory (Genos EI)	(Genos EI) is a 360-degree measure of emotionally intelligent workplace behaviour. It measures how often individuals display emotionally intelligent workplace behaviour	Multi - Rater or Self-Assessment	Benjamin Palmer and Con Stough
9	The Group Emotional Competence (GEC) Inventory	The instrument contains 57 items that measure the nine dimensions of GEI. GEC norms improve group effectiveness by building social capital, which facilitates engagement in effective task behaviours and processes.	Self-assessment	Vanessa Druskat and Steven Wolff
10	Trait Emotional Intelligence Questionnaire (TEIQue)	The TEIQue is a self-report inventory that covers the sampling domain of trait EI (reprinted below) comprehensively. It comprises 153 items, measuring 15 distinct facets, 4 factors, and global trait EI [49].	Self-Report	K. V. Petrides
11	Work Group Emotional Intelligence Profile (WEIP)	The WEIP6 captures two dimensions of emotional intelligence: Ability to Deal with Own Emotions (Scale 1: 18 items) and Ability to Deal with Others' Emotions (Scale 2: 12 items)	Self-Report	Jordan et al.
12	Wong's Emotional Intelligence Scale (WEIS)	WEIS consists of two parts. The first part contains 20 scenarios and respondents are required to choose one option that best reflects their likely reaction in each scenario. The second	Self-Report	Wong et al

		part contains 20 ability pairs and respondents are required to choose one out of the two types of abilities that best represent their strengths.		
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Table 2.1: Various EI measurement tools (adapted from (Dhani and Sharma, 2016: 195-196)

Overall, there are three types of EI measurement tools:

1. Tools that are based on abilities indicate how well a person understands emotions and how they function.
2. Trait-based tools are often made up of self-reported measurements and are frequently designed as scales with no right or wrong answers.
3. Self-reported measurements of traits, social skills, competencies, and personality are frequently combined in questionnaires based on the mixed conceptualisation of EI (Bru-Luna et al., 2021).

Mikolajczak et al (2020) drew on Mayer et al's EI ability model and has developed the Profile of Emotional Competence (PEC) model (Brasseur et al., 2013; Mikolajczak et al., 2020). This model essentially replicates the four dimensions suggested by Mayer and Salovey, but it distinguishes between the identification and expression of emotions (Brasseur et al., 2013). Three levels of EI are proposed by this model: knowledge, abilities, and traits. What people know about emotions and emotional competence is referred to as their knowledge level. The ability level is the capacity to use what they know (i.e., the knowledge level) in a challenging emotional circumstance. In this case, the emphasis is on what people can do rather than what they know. For instance, many people are just unable to control their desire to shout even when they are aware that they should not when they are angry. The trait level pertains to emotional dispositions, namely the predisposition to act in a particular way when confronted with emotional situations. Here, the emphasis is on what people normally do rather than what they know or are capable of (Mikolajczak et al., 2014). The PEC test, derived from Mayer and Salovey's version of EI, uniquely enables the individual assessment of both intrapersonal and interpersonal components within each dimension. Specifically, it evaluates the skills of identifying, expressing, using, understanding, and managing emotions separately (Brasseur et al., 2013). This distinctive feature sets the PEC apart as the sole model that offers the opportunity to test intrapersonal and interpersonal skills independently (Baudry et al., 2020). Brasseur and colleagues

(2013) claim that although it is commonly recognised that Emotional Competence (EC) predicts a number of significant outcomes, it is still unknown which specific competency(ies) participate(s) in a given outcome. This is due to the fact that there is no EC assessment that separately examines each of the five key emotional competences when it comes to interpersonal and intrapersonal qualities of each component. According to them, the difficulty with this knowledge gap is that we cannot theoretically comprehend the mechanisms in play nor practically develop customised interventions. This is supported by a study which finds that interpersonal EC predicts performance at jobs with high degrees of interpersonal contact more accurately than intrapersonal EC (Brasseur et al., 2013). While another study shows that health is better predicted by intrapersonal EC than by interpersonal EC (Mikolajczak et al., 2014).

As mentioned above, various EI models have issues regarding lacking cultural sensitivity such as the MSCEIT (Salovey, 2006) as well as the specificity of contexts upon which their models have been built upon such as leadership. This has led researchers to establish models that consider cultural aspects and are not context specific. Lansley (2020) suggests a model that distinguished itself through its value-neutral approach and context-free nature. Unlike models that are tied to specific disciplines, his model is value-neutral in perspective (free from personal biases or judgements and do not favour particular culture) and is context-free in nature (not tied to particular contexts such as leadership or the workplace). Lansley argues that this EI model allows researchers and practitioners to utilise it without being restricted to contextual limitations. The model avoids imposing specific values or biases, and ensures objectivity and inclusivity (Lansley, 2020). Although his model is ability-based, it does not disregard traits; rather, he has incorporated them in a way that does not result in another type of mixed model. He defines EI as: “the ability to perceive, understand and influence our own and others’ emotions, across a range of contexts, to guide our current thinking and actions, to help us to achieve our goals” (Lansley, 2020: 27).

The exploration of various EI measurement tools has provided valuable insights into the assessment and understanding of EI. Building upon this foundation, it is crucial to expand our examination to the specific context of higher education (HE), where emotions play a vital role in student’s experiences and outcomes. The following

section will explore the emotional dimension in HE, with a particular emphasis on the relevance and implications of EI.

2.3 The emotional and personal dimension in Higher Education

The personal dimension in higher education has received significant attention in recent years, especially with the work of Handal and Lauvås (1987), who propose engaging with students as individuals rather than using an automated approach to delivering supervision (Bengtsen, 2011). For many researchers, emotion is part of the research and learning process, yet these emotions should be managed and presented in a way that does not negatively influence academic performance and outcomes (Hansen, 2011; R. Barnett, 2007; Hubbard et al., 2001; Johansson et al., 2014). Hubbard et al (2001) suggest creating ways for 'managing' emotion and efficiently employing 'emotionally sensed knowledge'. They add that, neglecting emotions in research leaves researchers vulnerable and hampers our understanding of the social world (*ibid*). Studies also emphasise the importance of the emotional management in doctoral supervision for both doctoral students and supervisors (Han and Xu, 2021; Johansson et al., 2014). According to a study conducted by Johansson and colleagues on 10 doctoral students, emotional management in the supervisory relationship plays a crucial role. The study highlights the significance of students acquiring the ability to navigate their supervisors' various temperaments and moods, as well as developing skills in managing their own emotions. One of the common emotions to occur while doing research is feeling lost, and for Barnett (2007: 75), a learner may feel lost for two reasons. This blockage can occur as a result of either 1) an 'impenetrable ticket', in which the challenges thrown at the student are too challenging, either intellectually or practically, or 2) a 'dense ticket', in which the student might perceive that no particular aspect of the course is inherently challenging, but the abundance of ideas or experiences creates confusion and prevents them from identifying a clear path forward. Barnett stresses, however, that this blockage should be removed at a time when motivation and desire to learn are not lost (*ibid*).

The PhD degree continues to be one of the most difficult and uncertain paths in Higher Education (Gunasekera et al., 2021), and the demands of the PhD are found to be both intellectual and emotional, as recent research shows that the PhD path is found

to be an emotional roller coaster (Cotterall, 2013; Morrison-Saunders et al., 2010). Nonetheless, the bulk of studies focus on the intellectual rather than the emotional components (Fenge, 2012), with few studies investigating the students' emotion and supervisors' role in the doctoral journey. Students' emotions have been found to be critical in HE, as this stage in the student's life is very different from previous school experiences (Mendzheritskaya and Hansen, 2019; Trigueros et al., 2020). According to research, emotions play an integral part in students' satisfaction and learning behaviour (Cho and Heron, 2015; Pekrun et al., 2010). Negative emotions associated with pursuing a PhD, such as stress, anxiety, and depression, have an influence on both students' satisfaction with their journey and their academic achievement (Roslan et al., 2017; Pascoe et al., 2020; Wisker and Robinson, 2012). Positive emotions were found to be positively associated with academic performance, motivation and self-management (Pascoe et al., 2020). These studies shed light on the interlink between emotion and students' performance. A study by Wisker and colleagues on ways to support doctoral students reports that an unsupportive supervisory relationship can be detrimental on the students' mental health and subsequently on the research quality and completion (Wisker et al., 2010). They conducted surveys with doctoral students as well as interviews with doctoral students and supervisors. The findings reveal that doctorate students' learning journeys are multidimensional, encompassing ontological and epistemological growth, as well as cognitive shifts in understanding, all of which are interconnected. Furthermore, the students' identity is impacted in the PhD journey and may result in feelings of discomfiture. In fact, learning is combined by a sense of discomfort, as Barnett (2007: 76) argues that "A higher education, indeed, may be felt to be an initiation into continuing discomfiture or, at least, a series of sojourns between successive discomfitures". During the process of learning, students produce not just knowledge but also their own personal realities, where their will to learn is challenged by powerful adversaries such as fatigue, doubt, and anxiety (Bengtsen, 2011). Thus, adequate supervisory support is vital in mitigating students' doubts and anxieties (Jairam and Kahl Jr, 2012).

Emotional discomfiture might be an undesirable companion on the intricate and demanding path of a doctoral journey. Self-doubt, imposter syndrome, and anxiety can accompany the pursuit of knowledge and academic excellence. Many doctoral students are emotionally vulnerable due to the weight of expectations, the rigorous demands of research, and the isolation that comes throughout this trajectory.

However, navigating these challenges and demands can teach students the strength and resilience required to overcome the roadblocks that lie ahead. In the following section, I delve deeper into the challenges that PhD students face, exploring their experiences, the roadblocks they face, and the strategies they employ to overcome adversities.

2.3.1 Roadblocks and resilience: PhD students' challenges

The PhD journey is a unique phase in a student's life since it is personalised and different, as is the supervisory relationship. Each student is discovering their own way to embark on a specific research subject that represents their overall personal interest. Students are responsible for determining the scope of their studies, which arise from a desire to learn (2007). They are responsible for making a number of decisions that they were not accustomed to making on their own throughout previous stages of their educational experience. When it comes to international students, challenges can be amplified due to, for example, language barriers, cultural differences, social isolation, financial constraints, and lack of support from supervisors and peers (Wisker et al., 2010). This requires a need to navigate complex academic and professional environments, and the need to develop new skills and competencies (*ibid*). As a result, entrusting the PhD researcher with a significant responsibility may leave them feeling perplexed, especially when the role of the supervisor is neglected during this pivotal stage of the student's transition from a student to an independent researcher. This transformation is often a gradual and time-consuming process that requires careful guidance and support. Hence, it is essential for the supervisor to assess and support student's preparedness to explore unfamiliar and challenging places that may cause uncertainty and discomfort (R. Barnett, 2007). Such negative emotions are not always 'bad' emotions, because PhD research requires self-disposition into uncomfortable places and fields where students are delving into their interests and discovering and uncovering truths and creating knowledge, and this stems from emotions such as doubt, critical thinking, discomfort, and excitement, as the desire to learn stems from wonder and a sense of ignorance (Son and Kornell, 2010; Wisker et al., 2010). Hence, for Hansen (2011), one of the key supervisory roles for supervisors is to engage students in a community of wonder. Bengtsen (2011: 113) argues that "The personal

dimension designates a space for trying, for risk and uncertainty”, in which the researcher’s personal (ontological) voice is associated with themes of courage and experimentation, and it embodies an exploratory nature, marked by uncertainty and occasional lack of control. The researcher may encounter moments of obscurity they may perceive as failure (Batchelor, 2007).

In acknowledging the emotional discomfiture experienced in the doctoral journey, it becomes evident that understanding the personal challenges and uncertainties faced by students is crucial. It is worth exploring the effect of EI on their academic and personal journey. EI, encompassing the recognition, understanding, and management of one's own emotions, as well as effectively navigating and responding to others' emotions, can significantly impact the doctoral experience. Studies show that EI may affect postgraduate students' ability to cope with stress. A study by Parker et al (2006) shows that students who persisted in their studies were significantly higher in terms of emotional and social competencies than those who withdrew. Furthermore, EI was found to have a predictive effect on postgraduate' well-being (Shuo et al., 2022). Students who are anxious or depressed, according to Goleman (1996), do not assimilate information properly. In the same vein, Gebregergis and colleagues (2020) found that students who are emotionally intelligent experience a low(er) degree of depression and acculturative stress. In terms of academic achievement, Gilani (2015) found insignificant correlation between postgraduate students' EI levels and their academic achievement. On the other hand, a study by Sheikhbardsiri (2020) conducted on 338 postgraduate students to explore the relationship between EI levels and learning strategies in postgraduate students. Using EI questionnaire by Bradberry and Greaves (2009) and a questionnaire of learning strategies made by the author, the findings reveal that there is a positive relationship between EI components and learning strategy components, such as self-efficacy, rehearsal, critical thinking, cognitive self-regulation, time management and help seeking. The study suggests that the reinforcement of EI can facilitate students' learning. Furthermore, a study found that supervisors expect their students to be able to demonstrate qualities of EI, among which is empathy, as this can have a positive influence on their relationship with their supervisors, in terms of managing conflict and mutual recognition (Bui, 2014). In this regard, Taylor and Beasley (2005) shed light on the significant role both the students and supervisors play in establishing a healthy supervisory relationship, in which

students need also to recognise that supervisors are human beings with busy lives and concerns. While supervision is a fundamental aspect of the doctoral journey, it is pertinent to recognise that supervisors have numerous roles that extend beyond supervision. They may have administrative duties, research commitments, teaching responsibilities, and their own professional pursuit. This impacts on their schedules, and this exerts more stress and time constraints (Azure, 2016). These roles and responsibilities can sometimes result in supervisors being unable to effectively provide the level of supervision and support that students require. The demands on their time and attention may limit the availability for regular meetings, timely feedback, and guidance. These limitations can create stress and frustration for students who rely on their supervisors for support and direction throughout their doctoral journey. According to a study undertaken by Machera and Machera (2017), 89% of students in higher education believed that stress management training was necessary. Using the ability-based paradigm of EI and the MSCEIT tool, Landau and Meirovich (2011) discovered that the likelihood of male students being engaged was positively linked to their EI levels, while there was no such correlation for female students. However, a supportive environment was significantly associated with EI for students of both genders. Several studies advocate EI training programmes for university students to improve their EI, so that they are in a better position to manage stress and other issues they face during their course of study (Gilar-Corbi et al., 2018; Joseph et al., 2019; Landau and Meirovich, 2011). Further studies highlight a significant relationship between students' EI levels and their academic performance (Aziz et al., 2020; Pandey et al., 2019; MacCann et al., 2020). These studies, however, acknowledge that their research is prone to error occurring or variability in behavioural studies, which can impact the reliability and validity of the findings, as well as lack of empirical evidence that justifies EI directly causes higher performance (Aziz et al., 2020; MacCann et al., 2020), hence the use of EI tests can be questionable as to what extent these findings can be reliable. Moreover, these studies are limited to the undergraduate and graduate levels. As a result, a research that investigates postgraduate students' experiences and thoughts on EI would be helpful to explore the emotional challenges that PhD students face and how EI can play a role in enhancing their experiences. With the increase in students' challenges during their PhD journey, Keeling (2014) draws attention to the issue of perceiving the relationship between students and institutions as robotic, overlooking the fact that institutions are composed of individuals who can provide assistance and

support. This perspective reinforces the notion that institutions are seen as lifeless entities rather than recognising the potential for human interaction and guidance that can be offered by the people within them.

The doctoral journey is often characterised by a myriad of emotions, including anxiety, depression, uncertainty and stress, which can be demanding to navigate and manage. Extensive research has consistently highlighted the significant impact of these emotional experiences on students' well-being and academic progress. Moreover, studies have stressed the vital role of supervision in supporting and guiding students through these challenges, as their input and assistance have been proven to be instrumental in enhancing students' satisfaction with the PhD journey and fostering academic achievement. The following section addresses the role of supervisors in effectively managing students' concerns and struggles, highlighting the strategies and approaches employed to enhance emotional well-being and success in doctoral supervision.

2.3.2 Effective supervision and the personal dimension

Effective doctoral supervision is often recognised as a multifaceted process in which the personal aspect plays a critical role (Wisker et al., 2010; A. Lee, 2012). Several frameworks stress the significance of incorporating emotional and personal dimensions into the supervisory relationship (Batchelor, 2007; Buirski, 2022; Ismail et al., 2013; Koh, 2020; Khene, 2014; Andriopoulou and Prowse, 2020). Moreover, the importance of EI in doctoral supervision has been highlighted in recent studies (Gunasekera et al., 2021; Bui, 2014; Doloriert et al., 2012; A. Lee, 2012; Buirski, 2022). A study by Doloriert et al. (2012) conducted two cumulative studies in the UK, comprising a small group discussion and a nationwide student and supervisor survey. The initial study aimed to uncover important factors in the supervisory relationship, while the second study explored various aspects of supervision such as power dynamics and emotional expressions. The study reveals that EI plays a crucial role in doctoral supervision. The study highlights the significance of closeness, social interaction, and EI as key factors in the supervisory relationship. The findings emphasise the need for both students and supervisors to enhance their abilities in

recognising and managing emotions, navigating changing power dynamics, effectively giving and receiving feedback, and adapting to the evolving nature of their relationship (*ibid*). Despite these findings, there is still a gap in understanding specific supervisory practices related to EI skills and how these practices manifest in the context of doctoral supervision. Furthermore, little is known about the extent to which these practices are valued and appreciated by doctoral students. Figure 2.2 below presents a framework of different approaches to research supervision (A. Lee, 2008). These approaches reflect both professional and personal dimensions of the supervisory relationship.

	Professional				Personal
	Functional	Enculturation	Critical thinking	Emancipation	Relationship development
Supervisor's activity	<ul style="list-style-type: none"> Rational progression through tasks Consultation Techno-rational 	<ul style="list-style-type: none"> Gatekeeping Introductions to people and exemplars of high quality work 	<ul style="list-style-type: none"> Evaluation Challenge Enquiry-based partnership 	<ul style="list-style-type: none"> Mentoring Supporting constructivism 	<ul style="list-style-type: none"> Supervising by experience Developing a relationship/team
Supervisor's knowledge and skills	<ul style="list-style-type: none"> Directing Leading Negotiating Project management 	<ul style="list-style-type: none"> Diagnosis of deficiencies Coaching 	<ul style="list-style-type: none"> Argument Analysis Synthesis 	<ul style="list-style-type: none"> Facilitation Reflection 	<ul style="list-style-type: none"> Managing conflict Emotional intelligence
Possible student reaction	<ul style="list-style-type: none"> Logical Information giving Organised Obedient 	<ul style="list-style-type: none"> Role modelling Apprenticeship 	<ul style="list-style-type: none"> Constant inquiry Synthesis Fight or flight 	<ul style="list-style-type: none"> Personal growth Reframing 	<ul style="list-style-type: none"> A good team member Emotional intelligence

Figure 2.2: Lee's framework of approaches to research supervision (2012: 05)

Lee (2012) developed a framework that includes numerous approaches that supervisors may use to help their students achieve autonomy and academic competence.

Anne Lee's framework for supervision encompasses several key concepts, which are derived from interviews with supervisors across different disciplines. These concepts include:

- A Functional Approach: This aspect primarily focuses on project management and the practical aspects of supervision.
- Enculturation: Encouraging students to become integrated members of their disciplinary community, with the aim of fostering a sense of belonging.
- Critical Thinking: The framework promotes critical thinking skills in students, encouraging them to question and analyse their (own and others') research.
- Emancipation: supporting students in questioning, growing, and developing themselves throughout their research journey.

Lee's framework introduces an additional dimension to traditional research supervision, emphasising the importance of building strong working relationships through practising EI skills. Lee (2008: 267) stated a strong argument that "the supervisor can make or break a PhD student" and, hence, she included the various aspects the supervisor can contribute to developing PhD students and effective supervision. For example, the emancipatory strategy focuses on the research student's personal growth and journey, whilst the relationship approach concentrates on developing an emotionally intelligent relationship between supervisors and their students. EI is included in this framework as a skill that helps in managing the student-supervisor relationship. Relationship management is an integral part of EI: in fact, it is regarded as the end product of EI, as it entails the integration of all other EI skills (Cherniss and Goleman, 2001). Anne Lee's (2008) significant contribution to the field of doctoral supervision lies in her adoption of a caring approach that comprehensively addresses students' personal, academic, and professional growth with the emphasis on incorporating EI in doctoral supervision. International students, in particular, go through a transformative process that includes the development of autonomy, overcoming language barriers, and cultivating a sense of 'becoming' (Nguyen, 2020). At the same time, they are attempting to adjust to a new academic and cultural environment, which influences their cognitive and emotional well-being, they are seeking to foster a sense of 'belonging' (in most cases). Scholars such as Anne Lee (2008), Nguyen (2020), Thomas (2012), Pedler (2022), and Maunder (2018) have conducted extensive research on the concepts of 'becoming' and 'belonging' in the context of higher education. This study expands on their findings by recognising the complex relationship between EI and the experiences of 'becoming' and 'belonging' in shaping the doctoral journey. Notably, Lee (2008) and Wisker et al. (2003) have also identified EI as a pivotal component within the supervisory framework. Lee's influential work has played a crucial role in shaping the landscape of doctoral supervision by recognising and integrating EI, highlighting its importance in fostering effective supervisory relationships that guide students towards successful programme completion. Haksever and Manisali (2000) suggest that, in the supervisory relationship, emotional awareness is an essential attribute as part of the personal support. A paradigm for effective supervision requirements was tested in this study. These requirements are classified under three main categories. First, personal support, which encompasses activities unrelated to the research such as providing motivation,

socialisation, and other necessary support. The second type is indirect research assistance, which involves providing resources like contacts, equipment, and preliminary help in finding references. Third, direct research assistance entails critical examination of work, assistance with methodological issues, and accurate direction with project management. Their research shows that, in addition to the other two types, personal support is vital since most disputes between students and their supervisors are often personalised. This can be intensified during times of crisis. In the context of the COVID-19 pandemic, for example, it is important to note that studies have highlighted the increasing significance of EI in the behaviour of doctoral supervisors. The uncertainties and challenges brought about by the pandemic have accentuated the emotional and psychological support required by international doctoral students especially. Recent research by Wisker et al. (2021) underscores the role of EI in helping supervisors navigate these unprecedented circumstances effectively, ensuring the emotional well-being and academic progress of their students. Gina Wisker and her colleagues (2021) incorporated a supervisory model into a pandemic-perspective, drawing upon the results of a previous study that encompassed research published both prior to and during the pandemic. Their current study reveals the challenges and affordances when it comes to remote supervision. They highlight and elaborate on themes fundamental to remote supervision using the supervision-focused framework adapted from the Doctoral Learning Journeys project (Wisker et al., 2010/2011/2011).



Figure 2.3: Gina Wisker's framework of Remote supervision of doctoral candidates (Wisker et al., 2021: 613)

Wisker and her colleagues opine that the doctoral students' learning trajectories are experienced as: "multi-dimensional, involving ontological, epistemological, emotional and professional development, as well as cognitive shifts in understanding, which are closely interlinked" (Wisker et al., 2010: 16). Figure 2.3 represents these five dimensions.

Intellectual/cognitive: in which PhD candidates are supported in obtaining information, stimulating critical thinking, and developing practical skills through feedback, demonstration, and conversation.

Instrumental: availability of a stable internet connection and technical tools that permit online supervision might be difficult when students are dispersed throughout the globe and have uneven technology or competence, necessitating flexibility on the side of both the supervisor and the candidate.

Professional/technical: most of the attention has been given to professional development, that is, supporting PhD candidates to acquire professional skills that prepare them for their future careers.

Personal/emotional: this pertains to providing students with opportunities to voice their concerns and the emotional aspect of their doctoral journey, including (where

relevant) the hazards that they may encounter along the way.

Ontological aspect: this involves students' understanding of themselves, their identity, purpose, and their development in the context of their research and academic pursuit. This can be influenced by factors such as limited face-to-face interaction with their supervisors and isolation. This necessitates their supervisors' support to nurture their students' self-awareness and purpose (Wisker et al., 2021).

Wisker and colleagues addressed the limitations as well as highlighting points of strengths of remote supervision. Their framework was adapted to a new pedagogical context (remote supervision). The authors claim this was an eye-opening opportunity to address limitations in supervision, which would enhance supervision. Their findings reveal that remote supervision overcomes physical distance and is a feasible option for providing knowledge despite time, distance, expense, and even political restraints. However, their study reveals issues with students' reluctance when it comes to voicing their concerns and communication in remote interactions. Wisker et al (2021) conclude that both supervisors and students who joined a new remote supervision environment during the pandemic may encounter unusual practices and expectations as a result of a changing social relations structure, which may induce uncertainty as to how to navigate the new challenges with regards to remote interaction and the emotional aspect.

Both Lee and Wisker's frameworks highlight the significance of the emotional dimension and the impact it can have on the students and the supervisory relationship, given the emotional venture that the PhD involves entails the supervisor's support.

Not only do PhD students experience uncertainty, but doctoral supervision itself is also recognised as a practice that involves supervisors' uncertainty (Grant, 2005), especially within the diverse intercultural higher education. Grant (1999) compares supervision to walking on a rickety bridge, requiring situational awareness and adaptability. She suggests that supervision has a tangible structure with defined responsibilities by institutions, but power dynamics and personal desires make it unstable. Interactions between students and supervisors create unpredictable effects that challenge the stability of the relationship. The nature of supervision itself tends to be premised upon an intensive, interpersonally focused one-to-one relationship (Hodza, 2007). Hence, it is pertinent that supervisors should not be the only point of contact for students, despite their engagement in student support being of great

importance. Duke and Denicolo (2017: 04) opine that “It is critical that supervisors do not feel they alone are responsible for all aspects of their doctoral candidates’ development and well-being but are aware of and actively engaging with support services”. Nonetheless, some studies reveal that students prefer to contact their supervisors with regard to any issue given the trust developed between them compared to the other university services (Christie et al., 2004). Scholars who advocate EI training for supervisors to effectively support students and help them overcome higher education challenges also highlight the significance that EI can have on supervisors themselves in terms of preventing burnout and maintaining resilience (Doloriert et al., 2012).

A study by Izah and colleagues (2012) tests Masters’ and PhD students’ perspectives on the efficacy of their supervisors and effective supervision. The study employed the Pearson chi-square test. The findings show that the most significant characteristics are: 1) being friendly, approachable, and flexible, 2) being knowledgeable and resourceful, and 3) promoting students’ autonomy. According to the results, effective supervision appears to be determined by supervisors’ capacity to establish strong and professional connections with students, offer support and guidance, and maintain continuous motivation and inspiration. The statistical analysis, the Pearson chi-square test, indicates that there are no significant differences in the average scores of supervisory qualities and effective supervision based on factors such as programme, faculty, course structure, gender, or semester. Along the same path, Woolderink et al. (2015) use Web-based questionnaires for both students and supervisors, asking them 7 questions: two closed-ended questions and 5 open-ended questions relating to effective supervisory practices from PhD students’ and supervisors’ perspectives. The sample size was 52 participants in total. The findings indicate that PhD candidates value responsiveness and respectful, high-quality feedback from supervisors and advocate for frequent assessment of their work. While supervisors value PhD candidates who are flexible, open to feedback, take initiative and be a team-player. The authors conclude that a good student and supervisor match is an important aspect for a successful doctoral journey (Woolderink et al., 2015). Furthermore, Manathunga (2009) pointed to the aspect of ‘compassionate rigour’, in which she developed a programme for supervisors by this name, where she discussed how supervisors incorporate this aspect and manage the tension between its two components in a manner that enables them to support students with ensuring to provide rigorous

feedback. Although the majority of students embarking on a PhD have a high level of intellectual capacity, studies reveal that supervision is still regarded as an essential component for aiding successful PhD thesis completion, albeit to different degrees of guidance and support, as many studies indicate that even the most intellectual research students face moments of uncertainty and doubt. Hence, supervisors are there to build up and convince their students about the significance of their research project (James and Baldwin, 1999). Thus, they claim that:

Supervisors have a key role to play in helping to stimulate and maintain student motivation. Generally postgraduate students start with a strong desire to conduct research, but their supervisors can affirm and support this desire, and help to sustain it if it flags along the way.

(James and Baldwin, 1999: 31)

James and Baldwin (1999) argue that students' psychological needs can take time to emerge and can be more difficult to identify than their academic needs. Here, being sensitive and thoughtful seems to be essential in the supervisory relationship. James and Baldwin (1999) suggest eleven practices for effective postgraduate supervision, some of which fall under EI skills. These practices are:

1. Ensuring the partnership is right for the project.
2. Getting to know students and carefully assessing their needs.
3. Establishing reasonable agreed expectations.
4. Working with students to establish a strong conceptual structure and research plan.
5. Encouraging students to write early and often
6. Initiating regular contacts and providing high quality feedback.
7. Getting students involved in the life of the department.
8. Inspiring and motivating students.
9. Helping if/when academic and/or personal crises crop up.
10. Taking an active interest in students' future careers.
11. Carefully monitoring the final production and presentation of the research.

Thompson et al. (2005) maintain that the supervisory relationship develops during the

student's doctoral journey, which essentially includes formal education and interpersonal support, and this is academically, and possibly, emotionally challenging for both students and supervisors. Hence, supervision that includes personal support and encouragement, as well as being sensitive to each other's needs, was found to have a positive influence on student's satisfaction and academic achievement (Golde, 2005; Gill and Burnard, 2008). This said, finding a balance between offering care and support and freedom at other times is found to be challenging for the supervisors (Woolderink et al., 2015). Sometimes, supervisors tend to be non-responsive, which is described by some as 'benign neglect' (Gurr, 2001). This can lead students to feel disappointed and may result, in turn, in a poor supervisory relationship and conflicts (Wisker and Robinson, 2013). Bengtsen (2011: 110) argues that it is essential to listen to students as individuals and detect their needs and struggles in the 'specific personal–professional context'. Interestingly, these studies have indicators that the PhD journey is a roller coaster of emotions, and this requires intrapersonal as well as interpersonal skills that fall under EI, even though these studies do not necessarily mention it under its own label. Even so, there are a few studies such as those by Buirski (2022), Doloriert et al. (2012) and Lee (2008), which refer to EI as an essential aspect when supervising doctoral students. This led to the initiation of the current study: my thesis aims to explore a comprehensive concept that encompasses all of these components, namely EI, and then see whether EI can have a significant impact in the context of doctoral supervision.

Although the supervisor's support will not necessarily exclude emotions such as stress, anxiety and discomfort in general (given they can be part of the learning and research journey), it is pertinent to teach students how to deal with those emotions proactively (Hansen, 2011; R. Barnett, 2007). According to Ronald Barnett (2007: 76), the educational journeys that academics want students to take will inevitably induce ontological discomfort. As a result, one critical pedagogical role is to enable students to live with this discomfort. Relatedly, Hansen emphasises that the primary mindset of supervision within a university setting should revolve around curiosity and wonder rather than solely focusing on problem-solving (2011). Wisker (2012), in turn, emphasises that the supervisory dialogue, whether face to face or via other means of communication, is the key approach for connecting with students in order to provide support and encouragement, and by so doing empower them to engage in their research such that they successfully finish their project. Communication, which is a

key component in EI under relationship management skills (Goleman et al., 2013), is considered to be an influential aspect for effective supervision (see, e.g., Ives and Rowley, 2005).

To build a relationship based on mutual recognition and trust, and so create a place for creativity and differentiated learning, it is pertinent that supervisees sense the personal aspect of their supervisors' personalities, not just their positioning as professional identities (Bengtsen, 2011). Developing trust and the ability to recognise others' emotions is an essential part of EI (Mayer, 2001), which, along with other EI abilities leads to a successful management of others and therefore better handling relationships with them. In addition to *empathy*, which is a key component of EI competencies according to Goleman (2001), *trust* has been found to be an essential component in the supervisory relationship, as it fosters secure and supportive environments that encourage the development of creative knowledge (Robertson, 2017). Robertson's study reveals that trust may be perceived as both intellectual and emotional. Furthermore, James and Baldwin (1999) argue that it is important to pay attention to areas where misunderstandings are prevalent and were empathetic consideration of the student's perspective can play a crucial role in addressing problems before they escalate. Cultural differences between students and supervisors in terms of origin such as language barrier and power dynamic as well as in terms of discipline can also influence the supervisory relationship. For instance, diverse cultural expectations regarding research requirements, methodologies, the roles of supervisors and students, and appropriate protocols can significantly influence the supervisory relationship, which in turn affects the progress of students (Saxena, 2021; Wisker and Claesson, 2013). Doloriert et al. (2012) highlight different power types in doctoral supervision: reward power (providing incentives), coercive power (punishing or withholding rewards), legitimate power (based on position or authority), referent power (based on respect or likability), and expert power (based on expertise). They suggest that managing emotion, which is part of EI, plays a crucial role in managing power dynamics and fostering positive student-supervisor relationships. Emotionally intelligent supervisors can understand and regulate their own emotions and those of their students, leading to a supportive and collaborative supervisory relationship. This, in turn, enhances outcomes for both students and supervisors (*ibid*).

2.3.3 Emotional intelligence and the student-supervisor relationship

The nature of the doctoral supervisory relationship has been the centre of debate as to what constitutes the doctoral supervisory relationship (Roumell and Bolliger, 2017). A lack of understanding of what supervision actually entails worldwide can contribute to the widening of the gap between students and their supervisors in terms of communication and conflict management (Pearson and Kayrooz, 2004). Masek and Alias (2020: 2494) maintained that even though effective supervision is recognised as crucial for ensuring research students graduate on time, there is still no consensus on its definition given that: "the definition is influenced by several interacting factors that contribute to on-time graduation namely, students' characteristics, supervisors' characteristics and the existing management system". Students and supervisors may have different expectations with regard to the supervisory role, and students' responsibilities. Cultural differences can also contribute to widening the gap in that students and supervisors may come from diverse cultural backgrounds with distinctive communication styles and conflict resolution strategies, as well as distinct norms and expectations with regard to displays and management of emotions. These assumptions derived from prior experiences and cultural norms can create barriers to communication and conflict management.

The emotional aspect in HE, especially in the context of doctoral supervision and supervisory relationships, has been relatively overlooked (Bui, 2014). Certain scholars have stated that research should prioritise objectivity and autonomy, advocating for the exclusion of emotions due to their perceived interference with unbiased reasoning (Ecclestone and Hayes, 2009). However, many other studies indicate that emotions are essential in this field. See, for instance, research conducted by Evans and Stevenson (2011) to investigate PhD students' perceptions on the qualities of "good" and "bad" supervisors. The authors conducted interviews with 17 international students from six UK institutions to investigate the learning expectations and experiences of international PhD nursing students in the UK. According to the study findings, the PhD students appreciated their relationship with their UK-based supervisors. While they expected a high level of hierarchy, supervisors were found to be more friendly and approachable than they had initially anticipated. The most highly appreciated supervisory feature, however, was the adoption of a personalised student-

centred approach, which students found to be essential for building trust in their supervisors. A study by Bui (2014) involved interviews with 12 supervisor-student pairs, totalling 24 interviews. It aimed to explore the perspectives of both students and supervisors on their expectations during the PhD journey. Four main dimensions emerged from the analysis, among which is EI. The findings emphasised the significance of EI for both students and supervisors. However, the study did not specify the associated skills or elaborate on how EI influences the student-supervisor relationship.

Language, communication, critical thinking, and loneliness are some of the challenges that overseas students encounter. Evans and Stevenson (2011) have thus proposed cross-cultural awareness and communication training programmes for overseas students. In line with this, Engebretson and colleagues (2008) have conducted a literature review to identify the characteristics of successful supervision and their findings suggest that supervisors generally emphasise the intellectual parts of the student's study, whereas students are more concerned with the interpersonal aspects. The supervisory role is an essential aspect for the successful completion of the PhD (Lee, 2008). This is supported by studies which indicate that about 50% of postgraduate students withdraw due to various problems (McAlpine and Norton, 2006; Golde, 2005; Govendir et al., 2009; Bruce and Stoodley, 2013), among which is the supervisory relationship (Adrian-Taylor et al., 2007). A positive interpersonal relationship between PhD students and their supervisors is found to be an essential factor for the students' success (Golde, 2005).

Doctoral supervision is commonly viewed as a "black box" or "secret garden" (Park, 2006; Goode, 2010), where there is minimal external scrutiny or responsibility when it comes to student-supervisor engagement. Supervision is also considered one of the most complex forms of teaching (Mustafa et al., 2014). The EI literature suggests that relationship management is the highest level where all other aspects (self-awareness, self-management, and social awareness particularly empathy) converge to enable the managing of interpersonal relationships (see Goleman's EI model in Section 2.2.2). Studies indicate that the accessibility and willingness of supervisors to help their students, as well as the establishment of a good supervisor-supervisee relationship, are among the variables that encourage PhD students' development and effective doctoral supervision (Ali et al., 2016; R. T. Taylor et al., 2018).

There are varying stances as to the role of emotion and EI in academia. Mortiboys (2012), who worked for over 20 years in educational development in the UK and abroad, has developed courses for university educators so that they might develop their EI. Martiboys's (2012: 02) justification for this is that:

given the power and inevitability of emotions in learning and teaching and the influence on learners' feelings that can be exerted by the teacher, it is essential to ask what it is that the teacher needs to have and to develop in order to maximize the potential for emotions to support rather than hinder learning. 'Emotional intelligence' is a useful term to use to encapsulate this.

Mortiboys claims that the power of emotion in learning and teaching should not be overlooked. According to Mortiboys, teaching in an emotionally intelligent way entails creating an emotionally intelligent environment, recognising and working with your own and your students' feelings, employing active listening skills not only with individuals but also within group settings, effectively managing learners' expectations and developing a sense of self-awareness. Similarly, Shrestha (2018) found that EI is important in the teaching and learning process. There are contrary voices too. Ecclestone and Hayes (2009), for example, disagree with Mortiboys' idea of teaching with emotional intelligence, arguing that a focus on emotion in the context of higher education is insignificant since it promotes the notion of "personal vulnerability" (2009: 97). This, for them, contradicts the goals of higher education in developing autonomous intellectuals, as they claim: "university is the home of reason and that the more it embraces the emotional, the less it is a university" (*ibid.*). They go on to argue that in HE contexts, research entails an unbiased stance which necessitates a discarding of emotions.

Although students have a responsibility to be independent researchers to succeed in the research project, expecting a sustainable autonomy from students can raise tension between students and their supervisors as there are moments of crisis students go through where they need their supervisors' support (Ahmed et al., 2017; Wollast et al., 2023). A study by Deuchar' (2008) found that supervisors' expectation for students' absolute autonomy, especially when students' needs are at critical stages in their doctoral journey, can raise conflicts and heighten tension. The study highlights the potential challenges that arise when supervisors place a strong emphasis on

students' autonomy without considering their specific needs and circumstances. This imbalance in expectations can create a difficult environment for students who may require additional guidance and support during critical stages of their research. As a result, conflicts may emerge between supervisors and their students, and the resulting tension may hinder the overall progress and success of the students' academic journey. In a similar vein, disagreement and negative perception of supervision have been found to be influenced by incongruent expectations between students and their supervisors (Gunnarsson et al., 2013). Students and their supervisors work on a shared goal to complete a successful thesis. Hence, ensuring students are supported intellectually and personally is pivotal for a successful completion and a satisfactory experience. Studies suggest that EI can have a significant effect in PhD students' satisfaction with their supervisors. Cotterall (2013) investigated the influence of emotion in the longitudinal PhD learning experiences of six overseas students studying in Australia. The findings show that supervision practices are one of the main contributors of tension in the supervisory relationship. As mentioned earlier in Section 2.3, emotion and cognition work together during the process of learning, research and decision making (Lerner et al., 2015; Johansson et al., 2014). Neglecting the emotional aspect of the doctorate would adversely affect students' experiences and outcomes. Emotion and cognition cooperate by influencing attention, memory, decision-making, problem-solving, creativity and other human engagements and well-being. Thus, addressing the emotional needs of students is essential for creating a supportive and successful doctoral journey. A possible explanation for this was made by Sambrook et al. (2008: 18) who states: "Knowledge is related to intelligence; social intelligence incorporates emotional intelligence; so perhaps emotional intelligence is a significant factor in effective doctoral supervision and knowledge generation". Along the same path, Gunasekera et al (2021) found that doctoral students' psychological safety, which can be influenced by supervisors' displays of EI aspects, can contribute to building a healthy student-supervisor relationship. Furthermore, regular weekly meetings with supervisors and engaging in similar research interests are essential factors for students' satisfaction with their supervisors (Seeber and Horta, 2021). Meetings, which are the basis of supervision, whether face-to-face or via other technological methods, are the primary means for supervisors to work with their students to ensure they are encouraged, guided, and empowered to complete their research project (Bengtsen, 2014). Thus, the cultivation of EI within the student-

supervisor relationship can play a pivotal role in fostering effective communication, mutual understanding and a supportive environment for students' productivity and successful completion of their projects. Engebretson and colleagues (2008) conducted a literature review to identify characteristics of successful supervision. They concluded that supervisors generally emphasise the intellectual support of the student's study, whereas students are more concerned with the interpersonal support. While several studies document the challenges with regard to the intellectual process of doing a research-based PhD, little has been mentioned concerning the emotional dimension of this process (Cotterall, 2013), despite the fact that there is a considerable agreement among many scholars that cognition and emotion are embedded in the learning and research process (McLaughlin, 2003; Plass and Kalyuga, 2019). While these studies indicate that students who received emotional and social support from their supervisors have higher completion rates than those who did not receive support and guidance, the extent to which the emotional dimension can influence students' experiences and satisfaction, and thus their academic achievement, remains underexplored. Surveys and research studies have found components in the supervisory relationship that have accentuated concerns in supervision and highlighted features such as the pastoral role supervisors have performed during times of crisis. For instance, the outbreak of COVID-19 caused the entire globe to rethink its policies. Universities are among the institutions that switched to online delivery of classes and supervisory meetings, which had an impact on supervisory practices and students' well-being, academic achievement and coping mechanisms (Mudzi and Mudzi, 2022; van Tienoven et al., 2022). The PhD journey tends to be framed as a lonely one, especially when it comes to doing research in the humanities, given students generally work in isolation (conducting research in the sciences, tends to be highly collaborative: cf. Golde, 2005). It is possible, then, that supervisory positions that are already multifunctional in times of stability become even more intense (and also necessary) in times of crisis. A survey by the Quality Assurance Agency for Higher Education [QAA](#) finds that The pandemic has increased student's anxiety and has brought a significant pastoral component to supervisors' conventional role. Some supervisors are empathetic and see pastoral care as part of their role, but this is not always the case, as surveys at one institution revealed significant diversity in the relationship between supervisors and students. It is perhaps not surprising, then, that a widespread belief across universities has emerged, centring upon the idea that the pandemic has brought to light flaws in supervision that

would otherwise have gone undiscovered. The Postgraduate Research Experience Survey ([PRES](#)) reveals data from around 40000 postgraduate researchers from 94 universities (among which 93 institutions are in the UK) on their satisfaction with their experience during the pandemic in 2020 and 2021, which falls below 80% for the first time since 2007. Furthermore, less than 66% of participants are satisfied with the health and wellbeing support they received. This survey found that the most prevalent reason for considering abandoning a postgraduate research degree is mental and emotional health issues, emphasising the need to enhance health and wellbeing supports for PGRs. Manathunga et al. (2014) emphasise the significance of acknowledging the supervisory role in relation to the emotions of postgraduate research (PGR) students, highlighting its impact on their experiences and satisfaction. According to several research studies, maintaining a good relationship between students and supervisors can enhance the overall doctorate student's experience, and emotional factors can have a direct impact on the successful completion of the PhD (Jairam and Kahl Jr, 2012; Cotterall, 2013).

The following sections will explore EI-associated skills in the context of doctoral supervision.

2.3.3.1 Empathy in Higher Education

When it comes to the various EI aspects such as Empathy, studies indicate that students prefer supervisors who are empathetic, active listeners (Mainhard et al., 2009). According to Goleman and colleagues (2013), empathy is the essential competence in social awareness and is built upon self-awareness and self-management (see Table 2.1). Empathy is defined as "The act of perceiving, understanding, experiencing, and responding to the emotional state and ideas of another person" (Barker, 1970: 139). For Barnett and Mann (2013: 230), Empathy is "A cognitive and emotional understanding of another's experience, resulting in an emotional response that is congruent with a view that others are worthy of compassion and respect and have intrinsic worth". Care and empathy in HE have proven to be valued by students in several studies and thus to be an attribute of a good teacher. According to one professor in a research study conducted by Weston and McAlpine (1998) to explore six Math professors' viewpoints on effective teaching and learning,

caring is what distinguishes an outstanding teacher from others. Their research led them to the conclusion that caring is a significant attribute for exceptional professors across all disciplines, not just Math professors. They go on to say that caring for students indicates an “advanced level of teaching” (Weston and McAlpine, 1998: 153). This is supported by Meyers et al’s (2019) study which implies that empathy is an integral part of enhancing the student-teacher relationship. Mortiboys (2012) claims that developing teacher’s EI does not only affect the person as a teacher but also touches all their life fields. A number of studies highlighted the need to incorporate EI training for teachers, notably studies by Goad (2005) and Justice (2005), have shown that EI is an important component for building an independent lifelong learner, as they insist on the value of EI in teacher training programmes. In the same vein, Benn (2018) claims that a teacher’s ability to identify social and cultural cues helps them build rapport with students to have a sense of belonging to the classroom community.

In supervision, in particular, a study by Nguyet and Robertson (2020) indicates that showing interest in each other’s work and demonstrating care for each other’s lives strengthens the student-supervisor rapport and relationship. Caring is an attribute of EI that falls under social skills (Empathy). Studies on effective feedback accentuate the significance of empathy. A study by Odena and Burgess (2017) emphasises the importance of feedback being honest but empathic and tactful, indicating a consideration for the emotional impact of feedback on students. When supervisors provide feedback that is empathic and considerate, it demonstrates their ability to understand and respond to the emotional needs and experiences of the students. This level of understanding and consideration is often built upon a foundation of rapport. A strong rapport can enhance communication, facilitate trust and openness, and create a safe space for students to engage in meaningful discussions, seek guidance, and receive and perceive feedback (Parry, 2007; Gunasekera et al., 2021; Buirski, 2021).

The following section will highlight the significance of rapport in doctoral supervision.

2.3.3.2 Rapport in the supervisory relationship

One of rapport categories according to Murphy and Rodriguez-Manzanares (2012) is *recognising of the person*. Empathic individuals are able to develop personal rapport with others (Ahmad et al., 2009) since empathy is regarded a basis for a successful

relationship and managing conflicts. Ioannidou and Konstantkaki (2008: 119) note that: "Empathy and confidence are the basis on which any effective relationship, understanding and communication can be built. They are crucial in developing ideas and solutions, in problem solving, effective communication and avoiding or preventing conflicts". This indicates that empathy and confidence form the foundation for effective relationships, understanding and communication. In the context of doctoral supervisory relationships, these qualities are essential. They foster rapport, enabling a safe and trusting environment where ideas and solution can be communicated. Empathy promotes understanding, while confidence enables open dialogue. Together, they facilitate problem-solving, effective communication, and conflict prevention, essential elements for successful doctoral supervision. One of the aspects that was found to help build rapport in the supervisory relationship is personal support (Buirski, 2021), as it helps to mitigate issues of anxiety and uncertainty. The study highlights that building rapport in doctoral supervision involves supervisors being mindful of their dispositional qualities and intentionally incorporating them into the relationship. This approach fosters highly valued and supportive supervisory relationships. Developing mindfulness traits, such as awareness, empathy, and non-judgmental attitudes towards candidates, shows promise in building and maintaining supportive supervisory relationships that aid candidates during the transitional phase of their candidature (*ibid*). Based on a study and synthesis of the literature on rapport components, Murphy and Rodriguez-Manzanares (2012) developed a framework which gathers rapport qualities. They define rapport as a dyadic phenomenon characterised by 1) mutual attentiveness, respect, understanding, and openness; and 2) coordinated interaction and movement, all of which are positive, harmonious, smooth, and regular. According to Parry (2007), rapport is a key component of a successful supervisory relationship, yet this remains a supervisor's personal endeavour, and (most) programmes do not support training in such skills to provide personal support (Kiley, 2011). Buirski (2022) interviewed nine supervisors and their eight supervisees. The purpose of the interviews was to explore and understand the actual experiences of these individuals within their doctoral supervisory relationships, which were described as being highly valued and often intense. The findings revealed that EI is appreciated in doctorate supervision, where attributes like empathy, patience, kindness, accessibility and understanding are important in creating a learning atmosphere that makes students feel personally supported. Personal support provided by supervisors to their students

was fundamental in building a strong intellectual and emotional rapport. This study demonstrates that the PhD journey is a highly personal venture encompassing emotional challenges which are linked to intellectual struggles (*ibid*). Since many studies support the claim that doctoral students need personal and emotional support as much as they need academic support (Wootton, 2006; Doloriert et al., 2012; Buirski, 2021; Buirski, 2022), and since supervisors are the first point of contact for students, even with the availability of other university services, it is pertinent to see how EI skills can have an impact on the supervisory relationship in a way that both parties may benefit from. A reflective study undertaken by Gunasekera et al (2021) explores the developmental trajectory of the supervisory dynamics between two female PhD students and a male supervisor. The study reveals that it is a difficult path for the doctoral supervisor to guide their students in ensuring a balanced emotional experience throughout their journey. Hence, being Emotionally Intelligent, which corresponds with rational thinking, would help in identifying when students are in need of emotional support.

A supervisor who is more rationally oriented is ideally placed to help a doctoral student who is emotionally struggling to stay on the doctoral journey by providing a rational and objective road map showing ‘light at the end of the tunnel’. Similarly, a more emotionally intelligent supervisor is ideally placed to lend support to a doctoral student who is struggling from overthinking on rational and objective ways of completing the doctoral project. The supervisor could in this instance help by having the student to focus on ‘enjoying the process’.

(Gunasekera et al., 2021: 03)

Gunasekera et al’s (2021) study demonstrates that EI can be a critical factor in developing a healthy supervisory relationship. It also shows supervisors’ EI works as a compromising agent between students’ intellectual struggles and their emotional effect. Many research studies show that supervisors can provide two sorts of help. The first is intellectual support (for which various studies advise supervisory skills training) (Baseer et al., 2020). The second is personal support, which includes EI abilities such as building students’ confidence (Engebretson et al., 2008), empathy, and motivation (Bui, 2014). However, few studies highlight EI as an all-encompassing ability of personal support that requires training for supervisors (Doloriert et al., 2012). While

feedback mechanisms are typically regarded as intellectual components of offering support and guidance, the process of providing feedback necessitates emotional awareness and consideration from supervisors (Doloriert et al., 2012; Wang and Li, 2011).

2.3.3.3 Feedback, communication and student-supervisor relationship

East and colleagues (2012) link the effectiveness of feedback to the extent to which the supervisory relationship is effective. Several studies support this in that they indicate that the supervisory relationship has a significant influence when it comes to effective feedback, i.e., students' receiving and accepting feedback. Trust is thus deemed to be an essential aspect in the process (Yarwood-Ross and Haigh, 2014; Chugh et al., 2022). Other studies suggest that students prefer supervisors who are caring, empathetic, encouraging, inspiring, supportive, optimistic, effective communicator and reliable besides being knowledgeable, informative and considerate in feedback provision, as these qualities positively influence students' wellbeing, motivation to work and stress alleviation (Wang and Li, 2011; Ismail et al., 2013; Wisker et al., 2010). Effective communication was highlighted in these studies as it impacts the manner in which feedback is delivered and discussed in terms of clarity and consideration. Sometimes supervisors are perceived by their students to provide too harsh and vague feedback, and this can have a negative influence on students' motivation and confidence (Doloriert et al., 2012). A review of studies reveals that students' feedback perceptions are influenced by various factors: feedback content and delivery, as well as students' and supervisors' characteristics. Students might find feedback excessively harsh or lacking specificity. However, effective strategies involve timely, specific feedback, a suitable and balanced way of providing feedback, and promoting dialogue and collaboration between supervisors and their students (Doloriert et al., 2012). Effective communication, thus, does not imply discussing only positive matters, the distinction lies in the way feedback is communicated.

Feedback in doctoral research is a social practice embedded in supervisory relationships. This demands attention to the interpersonal

aspect of feedback, focusing not only on the *what*, that is, the text, but also on the *how*, that is, the way in which feedback is given and received.

(Wang and Li, 2011: 102)

Wang and Li (2011) argue that feedback within doctoral research is more than just a technical process; it is a social practice deeply intertwined with supervisory relationships. Consequently, it requires careful consideration of the interpersonal dimension of feedback. This entails shifting attention beyond the mere content of the feedback (the "what," referring to the text being reviewed) and encompassing the manner in which feedback is delivered and received (the "how"). By recognising the importance of both the substance and the approach of feedback, supervisors can effectively foster a supportive and constructive environment for their doctoral students. Given the significance of the supervisory relationship on the feedback process and given that managing a relationship is one of the core aspects of EI (in that relationship management includes effective communication and conflict management: Goleman et al., 2013), studies have pointed to various findings with regard to the effect of EI on the ability of the supervisor to provide effective feedback. A study by Doloriert et al (2012) indicates that students as well as supervisors regard feedback as a means to deliver technical support, which may be explicit, and personal support which may be implicit such as establishing rapport and monitoring well-being. Doloriert and colleagues conclude that power and emotion play a pivotal role in the feedback process of doctoral supervision. Some studies reveal that supervisors state that about a third of support they deliver to their students is in the form of emotional support (Vilkinas, 2008; Davis, 2020). It is evident that the primary criterion via which students choose their supervisors relates to expert knowledge; nevertheless, it is also pertinent to consider the interpersonal dimension of the supervisory relationship, which is a one-to-one interaction that may last for three to more than ten years. As a result, miscommunication, misunderstanding, and conflict are to be expected, and handling such individualised relationships is critical (Lynn McAlpine and Norton, 2006; Golde, 2005; Govendir et al., 2009; Bruce and Stoodley, 2013). Accordingly, scholars (Wisker et al., 2008; Johansson et al., 2014) emphasize the significance of the personal dimension in supervision given the individualised aspect that features the supervisory relationship and hence supervisory practices and interactions. The integration of intellectual and social community was highlighted in a study by Duke and Denicolo

(2017: 3), who claim that when researchers do not have access to a supportive research culture, it can hinder their ability to reach their full potential. They may feel isolated or unsupported, which can lead to dissatisfaction with their work or the research environment. This dissatisfaction can contribute to a higher likelihood of attrition. This issue may be further amplified in a globalised environment as experts opine that although emotion expression can be universal, reactions and responses to emotions may vary depending on cultural variations (N. Lim, 2016; Elfenbein et al., 2007; P. Ekman, 1972; Paul Ekman et al., 1987). This, in turn, may lead to misunderstanding and conflicts. This indicates that although the existing body of literature recognises that emotion expression can possess universal elements, cultural variations significantly influence the reactions and responses to emotions. Despite this, there is a notable scarcity of linguistic analysis concerning the role of EI within diverse cultural contexts. Consequently, there is a gap in the literature, which calls for further investigation into how linguistic factors intersect with cultural variations, shaping the understanding and expression of EI in different settings.

Doloriert et al (2012) consider that doctoral supervision is a type of human resource development in HE, which entails technical support, as well as emotional support that contains EI to achieve better student support. The positive interpersonal relationship between students and their supervisors has been found to be an essential factor for thesis success (Mainhard et al., 2009). To ensure effective and inclusive doctoral supervision, it is crucial to explore the significance of cultural awareness and EI in this context (Bui, 2014).

The subsequent section will explore the cultural dimension, examining its impact on the supervisory relationship, feedback dynamics, and the role of EI in this context.

2.4 Cultural awareness and EI in doctoral supervision

When it comes to PhD supervision, feedback interpretation is less considered (Madan, 2021). In a globalised environment, cultural differences are more likely to lead to misunderstandings and confrontations, as feedback can be interpreted differently albeit to various degrees, which may be quite emotional, in that it may affect student's self-esteem (Wang and Li, 2011; Doloriert et al., 2012; Caffarella and Barnett, 2000). Therefore, issues such as frustration, anxiety, fear, isolation, procrastination, and

perfection seeking may result from feedback that is deemed to be harsh or ambiguous when it is provided without suggestions. As a result, in an increasingly diverse research landscape, the role of supervision can be particularly demanding. With students hailing from diverse educational, cultural, social and economic backgrounds, supervising becomes a complex task that requires navigating and accommodating these variations (Duke and Denicolo, 2017). Cultural sensitivity, which is part of Empathy (Bui, 2014), is thought to be crucial in PhD supervision, particularly in the globalised setting of the HE (Halse, 2011; Nguyet Nguyen and Robertson, 2020). Given that conflicts and misunderstandings are more likely to occur in a setting where students and supervisors come from diverse cultural backgrounds, as previously stated in this section, Adrian-Taylor et al (2007) suggest that supervisors in such circumstances receive training on how to engage with international students as well as cultural sensitivity training. It is pertinent that students and supervisors engage in an environment where there is mutual understanding of what is expected from each other. Bui (2014: 23) argues that:

This aspect [awareness of cultural differences] is part of empathy and part of social expertise. Both supervisors and students expect each other to be aware of cultural differences. Students who come to the UK to undertake their doctoral study should take time to become aware of this different academic environment. In return, supervisors should have a certain understanding of students' backgrounds and cultures, and in particular how these will affect the relationship and approach to study.

Bui's (2014) statement highlights the significance of cultural awareness for empathy and social expertise in the student-supervisor relationship. International students should adapt to the UK's academic environment, while supervisors should understand students' backgrounds, cultures, and their impact on the relationship and study approach. Bengtsen (2014: 13) suggests that "As the supervisor becomes more experienced and skilled, a higher degree of empathy is successfully manifested towards the student. Together with an ability to recognize what may be best for the student". Hence, it is pertinent to investigate whether supervisors' years of expertise may have an impact on their EI levels, especially those related to the interpersonal aspects such as empathy and relationship management. Bengtsen's statement highlights the development of empathy in experienced supervisors, as they gain the

ability to discern what is best for the student. This suggests that cultural sensitivity, as indicated by Bui (2014), along with empathic growth, enables supervisors to make informed decisions and provide effective guidance tailored to the student's needs and context. Duke and Denicolo (2017: 4) recommend that supervisors in charge of doctoral students have open and honest communication about expectations, with space for negotiation in order to best meet individual needs. They insist that supervisors provide open discussion with their supervisees to make sure they are not afraid and are able to address their problems and deficiencies with confidence.

In the realm of applied linguistics, the study of intercultural awareness, intercultural pragmatics, and politeness (Pamungkas, 2020; Peng, 2016; Fang, 2010, House, 2012) has been integral to understanding effective communication across diverse cultural contexts. By way of illustration, a study conducted by Zhu Wuhan (2017) on how Chinese and English postgraduate students manage relationships with university instructors through academic request emails offers valuable insights into cross-cultural communication within academic contexts. The methodology involved participants from Chinese and British discourse communities, with 101 postgraduate students contributing emails containing academic requests. The data collection included predictor variables related to the imposition degree of requests, and the coding framework involved four components: Openings, Supportive Moves, Head Acts, and Closings. While this study focuses on linguistic and pragmatic aspects of communication, particularly in the written genre of emails, it provides a foundation for understanding how cultural norms and practices shape communication strategies. Another study by Kuchuk (2012) aimed to understand how L2 speakers of English conceptualise politeness. Data collection methods include background questionnaires, written questionnaires in the form of critical incidents, and semi-structured informal interviews with 20 students in total of 8 different countries. A qualitative analysis is used, primarily relying on discourse analysis complemented by the theories of "third place", facework, and politeness. Kuchuk explored the nature of pragmatic competence in EIL (English as an International Language), the development processes of such competence, and the challenges faced by students. This study offers insights into the nature of pragmatic competence in EIL, the processes of its development, and the challenges faced by international students. The findings emphasise the hybrid nature of pragmatic competence in EIL and the interrelationship between politeness and other factors that influence successful interaction. In

comparison, my research delves into the intersection of EI within the intricate fabric of intercultural doctoral supervision. My investigation uniquely contributes by exploring how EI manifests in the language and discourse of supervisors and students engaged in doctoral supervision. Using Thematic Analysis and Corpus Linguistic methodologies, I shed light on the emotional dimensions of intercultural interactions, offering a distinctive perspective that complements and extends existing Applied Linguistics research. This is for the purpose of understanding effective communication in diverse academic settings, bridging the gap between linguistic nuances and EI in intercultural contexts.

Acknowledging the extensive work done in these areas, this research uniquely contributes by delving into the intersection of EI within the intricate fabric of intercultural doctoral supervision. Whilst existing studies have emphasised linguistic and pragmatic aspects of cross-cultural communication (Holliday, 2017; Badwan, 2015), this study is believed to pioneer an exploration of how EI manifests in the language and discourse of supervisors and students engaged in doctoral supervision, using thematic analysis in combination with corpus linguistic methodologies (see Sections 3.5.1 and 3.5.2). By shedding light on the emotional dimensions of intercultural interactions, this research offers a distinctive perspective that complements and extends the existing body of applied linguistics research, enriching our understanding of effective communication in the academic context.

Despite the significance of cultural sensitivity in fostering a positive supervisory relationship, there are arguments that suggest that cultural diversity does not impact the dynamic. Some studies such as Erwee et al., 2013 suggest that the influence of cultural diversity appears to primarily affect the social environment of doctoral candidates. However, when it comes to the supervisory relationship, there is no evident impact due to the postgraduate students' acculturation into the university culture during their previous studies, whether at local or overseas universities. However, more recent studies indicate the opposite. Wu and Hu (2020) opine that cultural differences may cause misunderstanding between doctoral students and their supervisors. A study by Winchester-Seeto et al (2014) indicates that doctoral supervision issues in an intercultural context is intensified by eight factors, among which are language and cultural diversity in dealing with hierarchy. The doctoral supervisor's Intercultural Communication Competence (ICC) has been shown to

enhance the student-supervisor relationship, in which nurturing the personal and professional attributes of the students has an impact on the quality of doctoral education (Koh, 2020; Friedrich-Nel and Mac Kinnon, 2019; Wu and Hu, 2020). In terms of feedback process in doctoral supervision, cultural differences can impact the way in which supervisors deliver feedback, as well as how students react to that feedback (Xu, 2017; Hu et al., 2016). Overall, these studies support the notion that cultural sensitivity is vital in doctoral supervision, and further suggest that effective communication occurs when the participants in the conversation have a mutual understanding of one another, when empathy is a key component, and when cultural sensitivity is deemed fundamental effective supervisory relationship within a globalised environment of doctoral supervision.

2.5 Supervising international doctoral students

The increasing numbers of international students coming to universities in Europe, USA and Australia since the 1990s has brought forth a new challenge that requires attention, which is creating an inclusive academic environment where all parties involved can experience a sense of belonging within the academic family. Duke and Denicolo (2017: 04) stress that “increased diversity of [the] doctoral researcher population means that supervisors will likely be supporting students from a range of cultural, international and underrepresented backgrounds”. Thus, it is crucial to recognise that focusing solely on developing students’ theoretical and practical skills is insufficient. Emotional and social skills must also be emphasised as they play a significant role in enhancing students’ performance and experience (Gilar-Corbi et al., 2018). It is also recommended that an integration of programmes on intercultural supervision would address some challenges international students face especially with prior expectations and their own social educational and historical backgrounds (Kidman et al., 2017). Gilar-Corbi et al (2018) discuss the ‘Emotional Intelligence Training Program’, a programme to promote EI in higher education using a multimethodological approach that allows university students to develop their EI.

International students can be more vulnerable than home students because of studying in a foreign country; they are immersed in a new social, cultural and academic environment. Furthermore, students are meeting their supervisors for the first time,

and thus it is difficult to adjust to all of these changes (S. Taylor and Beasley, 2005). Gunasekera et al (2021) claim that in such circumstances, "... The only constant stability they [students] find in their immediate environment could be their relationship with supervisors". As a result, it might be also demanding for supervisors to navigate the diversity of students of various cultural backgrounds and expectations, besides their individualised personalities. Alam et al (2013) argue that the supervisory role becomes more challenging when dealing with students of various ethnic, political, cultural, economic, linguistic and educational backgrounds in their endeavour of providing a high-quality supervision, where students generally enter the doctoral journey with high expectations and with limited knowledge of what the PhD entails. Thus, discussing expectations at the very beginning of the supervisory relationship is believed to have a positive impact on their regular communications and interactions (Bui, 2014; Collins and Brown, 2021). Lim and colleagues have suggested a framework that includes strategies for effective communication which, in turn, encompasses availability, effective feedback, trust, and humour (J. Lim et al., 2019). In a study by Manathunga (2005: 223), supervisors identify key warning signs in students' behaviours that can impact completion of their theses. These are: 1) constantly changing the topic or planned work; 2) avoiding all forms of communication with the supervisor; 3) isolating themselves from the school and other students; 4) avoiding submitting work for review. If supervisors identify these signs, the authors advocate that supervisors apply the following strategies: providing personal guidance, regular and individualised supervision, pedagogical focus, scaffolding, focusing on students' personal and professional development, building students' confidence, and providing students access to research culture (*ibid*: 227).

Several studies advocating for EI in higher education acknowledge the relationship between EI and intellectual challenges in the context of doctoral supervision. Rather than serving as an escape from intellectual rigor, EI emerges as a valuable companion that aids both students and supervisors. Supervisors, equipped with EI skills, support students in managing emotions, shifting mindsets, and staying focused on their academic tasks (Gunasekera et al., 2021; Wisker et al., 2021).

This emphasis on the interplay between EI and intellectual engagement aligns with the broader literature, as demonstrated by scholars such as Gilar-Corbi et al. (2018), Gunasekera et al. (2021), Doloriert et al. (2012) and Johansson et al. (2014). They

highlight the crucial role of EI skills in navigating the emotional and intellectual aspects of doctoral supervision. Importantly, they maintain a balance by not diminishing the significance of intellectual engagement, critical thinking, and academic excellence in the doctoral process. This perspective advocates for the integration of both emotional and intellectual dimensions, fostering a holistic approach to supervision practices. By doing so, the study contributes to a nuanced understanding of the multifaceted nature of the doctoral experience.

The lack of a consent towards what supervision requires worldwide may lead to various issues and conflicts and may lead to having high expectations on the part of the supervisees. This may create stress, conflicts and other issues that can have an impact on the research progression (Bui, 2014; Collins and Brown, 2021). To accommodate these expectations according to each university requirements, the supervisor might need to have high emotional consciousness, as this indicates how much struggle, anxiety and uncertainty this stage might bear alongside personal and academic maturity for both students and supervisors. As a result, supervisors often have to support their supervisees beyond academic matters, particularly in the realm of emotion, with the aim of 'educating the entire person', as Vandervoort (2006: 6) puts it. Vandervoort points out in his research on the necessity of including EI in the curriculum, in which he concludes: "Increasing emotional intelligence may not only facilitate the learning process, improve career choice and likelihood of success, but could also enhance the probability of better personal and social adaptation in general" (2006: 6).

2.6 Conclusion

The literature review has assembled studies which have found that the PhD journey is a rollercoaster of emotions, and the supervisory relationship appeared to be among the core factors that influence student attrition rates, and satisfaction with the experience, and where other studies indicate the correlation between emotional labour and academic performance. While EI has been studied and applied in various fields, its exploration in doctoral supervision is a relatively new area of research that has been gaining attention (Gunasekera et al., 2021). Research findings highlight the substantial obstacles and pressures experienced by doctoral students, emphasising the potential

benefits of fostering EI skills for both students and supervisors. Enhancing EI has been suggested as a means to improve well-being, productivity, and overall success in doctoral studies (see for instance Sections 2.3.2.1 and 2.4.2). Further research in this area may shed light on the specific ways in which EI can be incorporated into doctoral supervision practices and how it can benefit both students and supervisors. The research gap in the literature concerns the perspectives of both students and supervisors within the context of doctoral supervision of international students, specifically regarding the significance of EI at both the relational and intellectual levels. Hence, it is crucial to investigate whether EI plays a vital role in this context, beyond just academic considerations, and how it impacts the supervisory relationship. Additionally, it is also important to examine how EI manifests itself in this specific context. By doing so, the aim is to gain insights into the practical aspects of EI and its impact on the supervisory dynamics, shedding light on how EI manifests and its implications within this particular context.

Overall, this chapter has reviewed several research papers on the concept of EI as well as studies on the personal dimension of doctorate supervision. This has provided me with insights into what has been done so far in this domain and has highlighted the major gaps that the present research will address. This chapter has also provided the researcher (and readers) with a grasp of the key concepts and tools needed to conduct an in-depth investigation on doctoral students' challenges when it comes to an underrepresented population in the UK educational context (Algerian PhD students), as well as an examination of students' and supervisors' perceptions on the concept of EI in the context of doctoral supervision. The following chapter will detail the methodology adapted in this study to address the research gap.

3 METHODOLOGY

3.1 Introduction

This chapter begins with a detailed explanation of the methodological approaches followed in this study. While EI has been studied in various fields such as Business leadership, social care and child education domains (Boyatzis and Soler, 2012; T. Morrison, 2007; Christianson, 2020; Payton et al., 2000; Ulutaş and Ömeroğlu, 2007), the exploration of EI in HE, in doctoral supervision in particular, is relatively new area of research that has recently started gaining attention by scholars. The bulk of research within the field of EI tends to be made up of quantitative (psychological) studies and laboratory assessments of EI and/or regression analyses in comparison with other variables such as confidence, work performance, wellbeing, etc (see, e.g., (Upadhyay et al., 2020; Swanepoel and Britz, 2017; Sánchez-Álvarez et al., 2016)). This chapter discusses the rationale behind choosing data collection and analysis tools associated with linguistic research. Though the study relies primarily on qualitative data collection and analysis, quantitative methods are used in this research to further support and address the research questions. The research instruments used in this study are qualitative questionnaires and semi-structured interviews along with the analysis tools drawn from, e.g., corpus linguistics (see, e.g., Section 3.5.2). In the sections that follow, particular attention is given to the process of participants' selection, the limitations which accompanied data gathering, reporting and analysis, and ethical considerations.

3.2 Research paradigm

A research paradigm is concerned with the perspective that guides the research design and methodology. It includes a set of assumptions, concepts, values and practices that shape the way in which research is conducted and interpreted (Creswell, 2018; Dörnyei, 2007). The research paradigm influences all aspects of the research

including the research questions, data collection methods and analyses. Choosing the appropriate research paradigm depends primarily on the researchers' epistemological and ontological assumptions, which are the building blocks of any research paradigm (Creswell, 2018). To define this study's research paradigm, three elements need to be specified: the ontology, epistemology and methodology. Ontology refers to the branch of philosophy that is concerned with the nature of existence and reality, while epistemology is a branch of philosophy that refers to the study of knowledge and how it is acquired (Clark and Bryman, 2019). Methodology refers to the overall approach and techniques that are used to conduct research, including the methods used to collect and analyse data (*ibid*). In the context of this study, interpretivism is adopted given that it aligns with the study's aim of focusing upon the significance of understanding the subjective experiences and interpretations of international doctoral students and their supervisors when it comes to the role of EI in effective supervision. It is also relevant to exploring the linguistic manifestations of supervisors' EI as perceived by these students and supervisors in the context of doctoral supervision. According to social constructionism, reality is not a fixed concept, but rather a product of social and cultural processes (Viv Burr and Dick, 2017). Emotion, which is part of reality, can be shaped by many factors among which are social, cultural, educational, and contextual aspects (*ibid*). This research is concerned with investigating lived experiences of students and supervisors in a particular context. The ontological stance that directs this research is social constructionism based on the assumption that emotion and EI can be socially constructed, in the sense that emotion and emotional reactions can be influenced by individuals' experiences, beliefs, education, societal and cultural backgrounds. A meaningful reality for Crotty (1998) is one that is socially constructed, where culture directs individual's behaviour and gives meanings to their experiences. Social constructionism relies mostly on qualitative data methods and analysis or a combination of both qualitative and quantitative methods, where quantitative data may be used in a way that supports or expands upon qualitative data analysis, thereby effectively deepening the description (Mackenzie and Knipe, 2006).

Given the complexity of research nowadays, and the diversity and bulk of studies in various fields, the methodological dilemma has shifted from merely choosing between quantitative and qualitative methods toward inquiring about what works best for resolving a research problem (Creswell, 2018). Scholars tend to make use of the most

valuable features of both qualitative and quantitative methods that serve the resolution of the research question. The current study seeks to understand how EI is constructed in the context of doctoral supervision based on the personal experiences and assumptions of eight students and five supervisors. This is in an attempt to understand whether cultural, educational, and individual factors can influence how emotions are expressed or reacted to in the social world (Sibia, 2013; Mesquita and Boiger, 2014) and especially the ‘world’ of UK supervision (see Section 2.4).

The study makes use of a mixed methods approach, which involves the integration of qualitative and quantitative methods to data analysis: in this case, Thematic Analysis (TA) (see Chapter 4) and Corpus Linguistic (CL) analysis (see Chapter 5). The aim is to gain a more in-depth and nuanced understanding of the research question under investigation (see Chapters 4-6). By using both qualitative and quantitative methods, I aim to capture both the richness and complexity of the participants’ perspectives and experiences, as well as to identify patterns and frequencies in their language use when discussing the (potential) use of EI as part of their supervisory process(es).

The use of TA can assist in identifying key themes in the students’ and supervisors’ responses. Simply put, it can provide insights into their perspectives respecting the role of EI in doctoral supervision, as well as their attitudes, beliefs, and experiences (see Section 3.5.1 for an explanation of the TA in this study). The use of CL analysis using a data-driven approach complements the TA approach through providing a fine-grained analysis of the language used in the data set (see Section 3.5.2 for an explanation of the CL methods drawn upon). The use of the types of statistical method provided by USAS (a team of researchers in Linguistics and Computing, which includes individuals such as Paul Rayson, Dawn Archer and Geoffrey Leech, has developed the UCREL Semantic Analysis System (USAS)) enables researchers to analyse patterns and frequencies in the participants’ language use, including word frequencies and collocation as well as semantic fields and expressions of emotion (see Section 5.3.2 for an explanation of USAS). This, in turn, allows for the identification of specific linguistic features that are associated with EI. The study is believed to be the first to investigate EI linguistically in the field of doctoral supervision. Its particular contribution is that it seeks to investigate patterns of language use in students’ and supervisors’ interviews with regard to emotion and EI in the context of

doctoral supervision. This is through using statistical methods to analyse these patterns, which are in the case of this study Wmatrix4 (see Section 3.5.2 for an explanation of the Wmatrix4 tool). It is a data-driven approach to CL where emphasis is placed upon the importance of letting the data speak for itself, without imposing prior assumptions or theories on the analysis. The aim is to gain insights into the ways in which EI and its associated skills are discussed and perceived in this context.

By combining TA on qualitative questionnaires and semi-structured interviews with CL analysis on the interview data, I can gain a more in-depth understanding of the participants' perspectives on EI and its associated skills, as well as identify patterns and frequencies in their language use (see Sections 4-5).

3.3 Research methods

This section will detail the different research tools used to collect data, namely, qualitative questionnaires and semi-structured interviews, as well as the rationale behind my using these tools.

3.3.1 Using qualitative questionnaires

Although qualitative questionnaires have been proved to be a useful technique for gathering rich data, they are still underutilised in qualitative research (Braun et al., 2021). Given the usefulness of qualitative questionnaires, they are used in conjunction with semi-structured interviews in this study to collect rich data from participants in a variety of formats. Prior to conducting interviews with participants, PhD students and supervisors were given the opportunity to become acquainted with the concept of EI, having completed the qualitative questionnaires. Questions in this qualitative questionnaire were mainly designed to obtain participants' recollections of their interactions (students' and supervisors' experiences and memories). This makes them similar to diaries and journals as both qualitative questionnaires and journal entries are constructed from memories and thus share many common features (Prosen, 2022). The reason for opting for qualitative questionnaires was to provide participants with an overall sense of what the interview discussion would be about. They were also

used to introduce the concept of EI and which elements in this concept pertain to themselves and others. This is in an attempt to avoid giving participants the impression that they are coming to be interviewed and discuss a topic with which they are unfamiliar. Questionnaires are known for collecting quantitative data, however, questionnaires with open-ended questions are used in social research to obtain qualitative data pertaining to participants' experiences and views about a certain topic (Prosen, 2022). In this study, doctoral students and supervisors completed questionnaires prior to meeting for follow-up interviews, in which the interview questions were based on the preliminary data from those questionnaires. The aim was to give participants time to recall and reflect on their experiences and decide which instances they were comfortable sharing with me, as the researcher, for further discussion during interviews. This enabled me to discuss in more depth these experiences and discuss further about their perceptions about EI associated skills when it comes to relating them to the context of doctoral supervision.

A qualitative study by Cliffe (2011) explored the relationship between EI and teacher practice of headteachers of a secondary school, lasted six-years and used a variety of data collection methods. Among these were qualitative questionnaires: Cliffe used prompt questions addressing a particular model of EI (Goleman's EI model). Specifically, participants were asked to draw on their experiences with regard to Goleman's model of EI (see Section 2.2.3). This meant that participants were guided to reflect upon a particular set of EI aspects. However, in the case of this study, the qualitative questionnaires suggested different scenarios where participants were asked to reflect on their experiences if relevant to those scenarios. Their answers were further explored in follow-up interviews to provide more details and further discuss their understanding of the concept of EI and their perspectives towards this notion when it comes to supervision.

In the case of this study's qualitative questionnaires, questions were mainly in the form of describing instances where some emotional scenarios took place. (Some of the questions in the qualitative questionnaire were adapted from the work of Mo, 2010). For instance, one of the questions asked: '*Can you give an example of a time when: even though it was difficult, you were able to control and filter your emotions, such as anxiety or other negative emotions, in a constructive way?*'. Qualitative questionnaires

were used for obtaining respondents' perspectives and opinions, which is comparable to the interview goal. However, a different mode was used, that is, written rather than spoken communication (Miles and Huberman, 1994; Reja et al., 2003). Respondents were requested to complete a questionnaire, which was emailed to them. Participants were asked whether they had prior knowledge of the concept of EI, and whether they can provide their own understanding of EI. Online questionnaires provide several advantages, including low cost and time efficiency. Furthermore, participants do not feel pressured to respond at a specific time (McGuirk and O'Neill, 2016), allowing them to provide more accurate responses (should they be minded doing so). When paired with additional tools such as interviews, open-ended questionnaires are believed to offer more clarity and validity to participants' responses, and to operate as a road map to the discussion and design of follow-up interviews (Millar and Dillman, 2011; Eckerdal and Hagström, 2017). A study was conducted by Libarkin et al (2005) that used open-ended questionnaire alongside interviews. They argue that the data obtained guided the development of the interview protocol. Furthermore, the utilisation of open-ended questionnaires enables participants to freely express their viewpoints without being subjected to researcher influence (Foddy and Foddy, 1993). Qualitative questionnaires are seen as being particularly efficacious as they allow researchers to obtain qualitative data without requiring the same skills, experience and ethical concerns that interviews do, such as developing rapport and prompt questions (Braun et al., 2021). However, the main disadvantage of email questionnaires is that respondents may not complete them or simply ignore the questionnaire (Van Gelder et al., 2010; Manfreda et al., 2008). The follow-up interviews helped in addressing this issue. In the current study, two supervisors did not manage to answer the questionnaires, which is understandable given their busy schedules and other responsibilities given the switch to online teaching and supervising due to the ongoing Covid pandemic. To accommodate the schedules and availability of the participants, I had to be flexible and reflexive in obtaining participants' responses via open-ended questionnaires and interviews. This was manageable as these two participants reviewed the questionnaire and agreed to provide oral responses to the questionnaires before beginning the interview. Furthermore, prior to the commencement of the (13) interviews with students and supervisors, I had practiced interviewing techniques, which contributed to gaining confidence and flexibility to meet the participants' comfort and trust and data collection requirements. Given that open-ended questionnaires are

not the primary instrument utilised in this study, the focus is placed on interviews as they offer a chance to expand on participants' answers and proceed with questions that are designed to trigger in-depth discussion about students' and supervisors' experiences and viewpoints.

Using a qualitative questionnaire prior to conducting an interview can be beneficial in a variety of ways. One of the primary aims is to establish a baseline understanding of the topic under discussion. This is especially useful when dealing with complex or technical concepts such as EI that may not be well understood by participants. Qualitative questionnaires were used to identify any gaps in knowledge or misunderstandings among participants. This information can then be used to structure the interview discussion so that these knowledge gaps are addressed, and all participants are on the same page. Furthermore, having a firm grasp on the subject can make participants feel more confident and at ease during the interview. They may be hesitant to share their thoughts or ideas if they are unsure about the topic being discussed. However, if they understand the subject well, they are more likely to feel comfortable sharing their thoughts and insights.

3.3.2 Using semi-structured interviews

The semi-structured interviews are the primary data collection tool in this study, as the research goal is to investigate Algerian international PhD students' and UK-based supervisors' perspectives on EI and the emotional dimension in the context of supervision, as well as how EI associated skills can be manifested in this context. Given the complementary feature of qualitative questionnaires in interview designing, the interviews built on the previous stories collected from the questionnaires so that it was possible to have an in-depth discussion with the participants about these experiences as well as their views on how EI skills might affect their supervisory relationship and the overall doctoral journey based on those stories.

Although the interview questions did not directly address EI from the start because I did not expect to have a discussion with participants who have expert knowledge in EI (as this was not the aim in the first place), the other data collection tools assisted in introducing this concept to them (see Section 3.3.1). However,

towards the end of the interview, there were some direct questions concerning their understanding of EI and when they first encountered the notion of EI. Throughout the interview, I sought to ensure that the conversations about EI-related skills always related (back) to the context of doctoral supervision since it seemed to be more beneficial in relating EI to the participants' actual experiences of the latter.

Given the inability to meet face to face due to the outbreak of Covid-19, participants were approached online. Interviews were conducted virtually via the Microsoft Teams and Zoom mediums. A virtual interview is any type of interview that is conducted using an ICT (Internet Communication Technologies) platform (Patel et al., 2020; Salmons, 2014). These synchronous technologies can collect qualitative data. Given that students and supervisors communicate through these mediums for meetings besides email communication, conducting interviews via these mediums was convenient (as well as being familiar for both students and supervisors). Mann (2016: 103) argues that virtual interviews are often suitable for both interviewees and interviewers and helpful in gaining perspective on ideas, beliefs, and experiences, as they allow the researcher to interview larger or geographically dispersed samples.

Five supervisors and eight Algerian PhD students from Manchester Metropolitan University participated in the interview process. The interviews lasted between 38 minutes and one hour and took place between the dates 22/11/2020 to 23/02/2021. Following this, interviews were transcribed verbatim and then analysed using various tools. The study focuses predominantly on Thematic Analysis of the data (Braun and Clarke, 2006) and is combined with a Corpus linguistic analysis using Wmatrix4 software (Rayson et al., 2004; see also Section 3.5.2) and close readings of some patterns in the language used.

Following Braun and Clarke's 6 steps of data coding and thematising (see Section 3.5.1), themes that pertain to EI associated skills have been generated from the datasets. Given that this study tries to further evidence EI linguistically, it is believed to be novel in comparison to previous studies that provided lists of EI characteristics but did not explain how these aspects occur linguistically (cf., e.g., Gunasekera et al., 2021). The purpose of this study is to capture EI elements from how supervisors and students communicate about their lived experiences. In essence, this study seeks to uncover linguistic evidence of how these EI associated skills are evidenced in doctoral

supervision (and what themes, if any, are generated). For instance, how empathy is signalled in language terms. The semi-structured interviews are intended to allow for a deeper understanding of the students' and supervisors' perception of EI in the context of doctoral supervision. Interview questions were sectioned into sub-topics. In order to let the participants have an idea about what topic to discuss in each section, an introductory statement along the following lines was used at the start of each section: *Thank you for your responses. Now I'd like to ask you questions regarding your relationship with your supervisor/s.*

The following section will detail the process of data collection, challenges, and alterations made accordingly.

3.4 Data collection process

The data collection phase in this study was not without its challenges. This section will detail the process of switching to internet-based data collection, the sampling and participant recruitment strategies.

3.4.1 Covid-19 and switching to Internet-based research tools.

As a student at Manchester Metropolitan University, I had access to university premises and resources, allowing me to approach and interact with student and supervisor participants. However, given the circumstances surrounding the data collection phase, which occurred during the outbreak of Covid-19, I was forced to use Internet-based research (IBR) methods, including online questionnaires and video conferencing tools (Microsoft Teams and Zoom), and recruited participants via email invitation letters. This limited the researcher's access to participants and raised additional concerns about participant safety, privacy, and confidentiality. As a result, ethical concerns for adhering to IBR were negotiated. Over the last two decades, there has been an increase in interest in IBR and research ethics (Convery and Cox, 2012). Although IBR can be a useful technique for obtaining qualitative data since it overcomes time and geographical constraints and generally involves minimal risks to participants (Eysenbach and Till, 2001; Holmes, 2009), it creates certain privacy and

consent issues (Eysenbach and Till, 2001). Thus, Holmes (2009) suggests that it is important to evaluate three possible causes of harm: when queries elicit emotional responses, when confidentiality is violated, and when the welfare of an online conversation is damaged. This is owing to the researcher's restricted ability to intervene if anything unexpected occurs (Kraut et al., 2004). Section 3.6 provides further details on how these issues were addressed and managed.

Collecting data during a challenging time may have its own impact on the data collection and even analysis. I had to address this variable to make the readers aware that my results are concerned with a particular case at a particular time period. This is due to the fact that participants' recruitment and data collection was done using internet mediated tools. It was essential to consider several factors such as finding appropriate settings for video conference interviewing, testing technology prior to the interview, and practicing video conference interviewing skills.

3.4.2 Sampling

There are two main types of sampling. The first, probability sampling, incorporates some form of random selection with equal chance for everyone in the population to be part of the study. The second, non-probability sampling, is the most common in social research (Dörnyei, 2007). As its name implies, it is not random. It is commonly associated with qualitative research, moreover (but also can feature in quantitative research). In this study, non-probability sampling was employed since this study investigates participants with specific characteristics, and hence, the analysis pertains to the participants and not the general population (Clark and Bryman, 2019). Purposive sampling is a non-probability sampling technique that is used in this study to select participants based on specific criteria that are relevant to the research question. Patton (1990) argues that purposive sampling aims at producing information-rich cases to serve the study objectives. It is also pertinent to note that the goal of using this strategy is not statistical generalisation (Clark and Bryman, 2019). Thus, purposive sampling technique is used for recruiting Algerian PhD students and doctoral supervisors.

Given that I am an Algerian PhD student and part of the Algerian Laureates who are granted scholarships to pursue doctoral research in UK universities (as part of a

programme supported by the Algerian Ministry of Higher Education and Scientific Research), this helped me in accessing students due to a variety of factors, including friends and interactions with students at Canterbury Christ Church University, where we enrolled in a 6-month pre-sessional course. This provided me with an opportunity to network with other students, which assisted in contacting and recruiting participants, particularly those pursuing their PhD at Manchester Metropolitan University. When it comes to recruiting supervisors, invitation letters were sent to them via their professional emails.

The population from which the study sample was selected were doctoral supervisors from Manchester Metropolitan University, as well as Algerian PhD students from the same institution. This helped me to easily access students and supervisors from the same institution, owing to its familiarity. 8 Algerian international students and 5 supervisors accepted to take part in my study.

Given the circumstances with regard to data collection taking place during the pandemic, it was challenging to access participants given that students and supervisors were all impacted. It was also impossible to reach participants to conduct face to face interviews. Participants were contacted online via email in consequence. There is no consensus as to how many participants the researcher should recruit in their studies (Dörnyei, 2007). This is due to the peculiarities and complexities of each study, the population being studied, research methodologies, as well as the research objectives (*ibid*). Brinkmann and Kvale (2015) propose a sample size of five to twenty-five individuals, which may be decided upon based on the study's aim. While Bertaux (1981) recommends up to 15 individuals, Becker (2012) emphasises that one person may suffice for various purposes. Although Creswell and Creswell (2017) propose a minimum of twenty participants for grounded theory, they believe that 3 to 5 interviews for case-study methodologies can be sufficient. Saunders (2012) highlights a range of four to twelve people as likely to be sufficient when selected from homogeneous groups, and 12 to 30 participants when recruited from diverse populations. Kuzel (1992) indicates that if the population of interest, and thus, the participants to be recruited represent a homogeneous group, 6 to 8 individuals are likely to be adequate, while 12-20 people are likely to be required for heterogeneous populations. Given that various researchers advocate different sample sizes, while some agree that it depends on each study's objectives and idiosyncrasies, the number of participants was decided

upon, in this case, based on achieving 'data saturation point' (Dörnyei, 2007; Creswell and Creswell, 2017).

The sample size for the research consisted of 5 UK-based supervisors and 8 Algerian international students. The data obtained from these participants was sufficient as thematic saturation was reached, meaning that repetition of codes and themes was detected, and no new codes or themes were deemed necessary with regards to the research questions (Morse, 1995). The interview data was found to be rich in information and detailed enough to reach a point of thematic saturation. Corbin and Straus (1990) argue that they reached a point that led them to stop the recruiting process of interviews when they reached data 'saturation' from 10 interviews. Saunders et al (2012) suggest that a sample size can range between 5 as a minimum number of participants from a homogenous group to up to 25. Indeed, a reviewed study by Guest and colleagues (2006) reveals that after conducting over 60 interviews, about 94% of the codes had been identified in the first 6 interviews, while 97% of the codes had been identified within the first 12 interviews. In the case of this study, 5 interviews with supervisors were found to be enough in addressing the research question when data was deemed to have reached saturation given the richness of data, while for students' data, 8 interviews were conducted to reach saturation. According to many researchers in the social sciences, data saturation is what matters rather than reaching a particular number of interviews (Clark and Bryman, 2019; Dörnyei, 2007). Several studies have used smaller sample sizes to study the perceptions of students, teachers and supervisors about EI. For instance, Gunasekera et al's (2021) study on the role of EI in the student-supervisor relationship drew upon 3 participants (one supervisor and two PhD students). Another study by Han and Xu (2021) made use of 17 semi-structured interviews with supervisors. A third study, by Elliot and Kobayashi (2019) drew upon interviews with 6 international PhD students and 6 experienced supervisors to examine the role of PhD supervisors in facilitating and bridging academic cultures (Elliot and Kobayashi, 2019).

Following examining the sampling methodology, the subsequent section will present a detailed account of the recruitment process employed to select participants for the study.

3.4.3 Participants' recruitment

The characteristics of this study's student-participants are:

- Algerian international PhD student.
- Pursued their previous education in Algeria.
- Sponsored by the Algerian Ministry of Higher Education as part of the PhD scheme to train potential university lecturers at the department of English language.

Student's name	Year of study
Aysha	1 st year
Boutheyna	3 rd year
Camilia	2 nd year
Dalia	2 nd year
Fouzia	3 rd year
Hiba	2 nd year
Israa	2 nd year
Meriam	1 st year

Table 3.1: Students' characteristics

Algerian PhD students were invited via emails, accompanied by information sheets and consent forms. 8 students agreed to proceed with the qualitative questionnaires and interviews. I sought to contact students at various stages of their PhDs, and fortunately, I was able to involve a variety of students: 2 first year students, 4 second year students, and 2 third year students. This allowed me to examine whether there are any potential patterns with regard to students' attitudes towards effective supervision, the role of the emotional aspect, and the extent to which this can have an impact on supervision and the relationship built accordingly. I also aimed to explore the potential variations in the degree of students' reliance on their supervisors for emotional and personal support. The focus here is upon gaining insights into the nuanced shifts in the students' perceptions of their dependence on emotional and personal support from their supervisors (see especially 4.1.2.1, 4.1.2.2, and 4.1.2.3).

The characteristics of supervisor-participants are:

- Having experience with supervising international students.
- Having supervised at least one Algerian PhD student.
- Working at Manchester Metropolitan University.

Supervisor's name	Years of expertise
Adam	3 years
Andrew	15 years
Lisa	4 years
Mike	14 years
Sophie	1 year

Table 3.2: supervisors' characteristics

Invitation e-mails with information sheets and consent forms were sent to supervisors in the faculty of Arts and Humanities and Health and Education with the assistance of Manchester Metropolitan University staff members. The rationale for approaching these two faculties was that Algerian PhD students mainly pursue their research in one of these two faculties at Manchester Metropolitan University, which provided an opportunity for finding supervisors who have experience with supervising Algerian PhD students. 5 supervisors accepted to take part in my study. The primary results revealed the supervisory experience of the supervisors who took part ranges from less than one year to fifteen years of experience.

Given that students are all Algerian international doctorate students, I have been careful to ensure that the supervisors taking part have previously supervised and/or are currently supervising at least one Algerian student.

The recruitment strategies have resulted in 8 Algerian International students and 5 supervisors from Manchester Metropolitan University.

3.5 Data analysis

This section is further divided into two subsections to explain the two analysis tools adopted in this study: the Thematic Analysis and the Corpus Linguistic analysis.

3.5.1 Thematic Analysis

Several studies have addressed the role of EI in job success and/or the development of good relationships with peers and staff. Some of these reports, particularly in higher education, have suggested that EI is a significant factor when it comes to academic achievement (Halimi et al., 2020) and effective teacher performance (based on surveys and EI measurement tools). However, little has been done to investigate EI qualitatively, that is, to determine what EI appears in such a context and what both students and supervisors consider to be effective when it comes to EI-related skills. During a time when studies regarding emotion were predominantly constrained by positivist research paradigm, Fineman (2004) advocated for the qualitative exploration of emotion and EI without exclusively relying on quantitative measurements. In line with this perspective, the primary objective of the present study is to analyse EI from a linguistic standpoint, with a specific focus on identifying themes related to EI-associated skills. The study aims to examine the prevalence of EI within the context of doctoral supervision. Thus, Thematic Analysis (TA) is implemented to analyse both the qualitative questionnaires and interview data. According to Boyatzis (1998), TA is a type of qualitative analysis that is used to examine classifications and highlight themes (patterns) that are relevant to the data. TA depicts the findings in considerable detail and engages with a variety of themes through interpretations. It is thought to be the ideal choice for my study, given that it attempts to explore experiences and perspectives via interpretations. TA is not guided by a particular theoretical and epistemological framework, and is suitable for analysing qualitative surveys, interviews, and diaries (Castleberry and Nolen, 2018). It is characterised by flexibility in terms of research questions, sample size, data collection methods and approaches to generating meaning. Clarke and Braun (2017: 297) indicate that "TA can be used to identify patterns within and across data in relation to participants' lived experience, views and perspectives, and behaviour and practices; 'experiential' research which seeks to understand what participants' think, feel and do". Braun and Clarke consider TA as a standalone method because "through its theoretical freedom, thematic analysis provides a flexible and useful research tool, which can potentially provide a rich and detailed, yet complex, account of data" (2006: 78). TA helps the researcher to identify interesting themes in relation to the topic under investigation. It is a widely applicable method that can be employed to diverse datasets (interviews, qualitative questionnaires, diaries, observation, etc.), especially when the researcher is interested

in identifying a certain aspect within their data. In this study, the aim is to identify instances within students' and supervisors' datasets that can be categorised as EI or its related components. TA is applied on the collected data from qualitative questionnaires and interviews relating to student-supervisor interactions, with emphasis on manifestations of EI and participants' interpretations of those experiences. This helps in exploring their awareness of EI practices and their perspectives regarding EI role in supervision. The questionnaires that are used in the current study differ from Cliffe's (2011) study detailed in Section 3.3.1 in that it is not tied to a single model of EI; instead, it seeks to locate instances where participants can address any aspect of EI (see Section 2.2.3). Although the analysis of both questionnaire and interview data took place at the same time, it is worth noting here that the questionnaires were collected before conducting interviews, in order to allow for the collected responses to feed into the creation of interview questions.

The analysis reported in this thesis follows the 6 stages as suggested by Braun and Clark (2013: 202-203). See Table 3.1 below.

Phase	Description of the process
1- Familiarising yourself with your data	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
2- Generating initial codes	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3- searching for themes	Correlating codes into potential themes, gathering all data relevant to each potential theme.
4- reviewing themes	Checking if themes work in relation to coded extracts (level 1) and the entire data set (level 2), generating a thematic map of the analysis.
5- defining and naming themes	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names of each theme.

6-	Producing the report	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts. relating back of the analysis to the research question and literature producing a scholarly report of the analysis.
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Table 3.3: Phases of Thematic Analysis (Adapted from (Braun and Clarke, 2006))

Table 3.1 indicates the approach used in this study, which is based on Braun and Clarke's (2006) thematic analysis. It allows for looking for patterns in the dataset in relation to the research questions, while also allowing the researcher to look at interesting patterns that could lead to new insights. Upon gathering interviews, the data transcription process was initiated. As per Braun and Clark's guidelines (2006), analysis starts concurrently with transcription. This phase enables researchers to become acquainted with the collected data. I scrutinised the transcribed data to identify patterns and themes related to the research aims, thereby facilitating a comprehensive analysis of the collected data. The main emphasis is on analysing interview data as it requires more time to transcribe, and the qualitative questionnaires complement the interviews, since they are already in a written form and are less extensive than the interview data.

The analysis generated a variety of codes, which were then classified under umbrella themes. Table 3.2 below summarises some of the themes, related codes, and pertinent extracts.

Theme	Codes and representations	Examples
Students 'perceptions of EI	Understanding emotions in oneself Understanding emotions in others Strategic use of emotions Managing emotions Motivation Emotions influence thinking	"the extent to which you come to understand your emotions and express your feelings in the right moments the right place and the extent to which also you understand the emotions and feelings of people." (Meriam, 22/12/2020)

Supervisors' emotional support	<p>Empathy and Approachability Openness to listen and discuss issues impacting research. Discussing concerns made me feel less anxious. Responsiveness</p>	<p>"I think it's really important that my supervisor understands my emotions and understand my mental state, so she doesn't put so much pressure on me when I am not able to manage that stress or just makes me even feel worse than I'm already". (Israa, 30/11/2020)</p>
	<p>Emotional Regulation Normalising struggles Reframing Shifting students focus</p>	<p>"when she shared these things with me, I realised that it's not just me these struggles are common all people go through them, especially PhD students so also it gave me hope if she went through them and she eventually got to have her PhD and succeed so can I. So, it was really helpful".</p>
Building trust and rapport	<p>Freedom provider Knowledgeable supervisor I trust my supervisor's advice guidance and decisions</p>	<p>- "I'm so much motivated to work harder to work more because someone is appreciating my work someone is telling me your work is really fascinating so it gives me more energy to work". (Boutheyyna, 11/30/2020)</p>
Inspiring and using emotions to facilitate thoughts and decision making	<p>Inspiration (motivating and encouraging – showing interest and appreciation of ideas – supervisors keeping track of their student's progress) Role model supervisor (supervisors' shared experiences) Helpful and supportive feedback (balanced feedback is useful to sense achievement – positive affirmation)</p>	<p>- "the way that my supervisor approach supervision made me think of taking her as a model to supervise my students". (Meriam, 22/12/2020)</p>

Table 3.4: Generated themes with relevant codes and examples

The following phase of analysis that will follow corpus-based approach is detailed in the next section.

3.5.2 Corpus Linguistics analysis using Wmatrix4

Data gathered from the semi-structured interviews are further analysed through the Corpus Linguistic (CL) analysis tool: Wmatrix4. This software programme was developed by Paul Rayson (2008) and has been constantly updated since its initial creation. Wmatrix4 was used in this study to explore how the concept of EI is represented in doctoral supervision based on the texts' (statistical) keyword and key semantic field results. The statistical measure of how frequently a word or phrase appears in a specific text or corpus compared to its frequency in a reference corpus is referred to as Keyness or statistical significance (Archer and Lansley, 2015).

The quantitative aspect of the CL analysis makes use of Wmatrix4's USAS (UCREL Semantic Automated System) categories, i.e., the 21 major discourse fields divided into 232 semantic field categories. This quantitative method is then combined with a close reading of some patterns in the language used so that any quantitative results are validated and further explored by the researcher via a "close reading" of the data. The macro discourse fields that can be studied, via Wmatrix4, include *Emotional actions, states and processes*, *Education*, *Linguistic action, states and processes*, *Social actions, states and processes*, *Psychological states and processes*. They are identified, here, because the semantic fields can be related in different ways to the concept of EI: specifically, the ability to perceive emotions, to understand emotions, to use emotional information to facilitate thinking and to manage emotions in oneself and others. The USAS system also allows for the creation of new tags, in addition to the pre-existing tags, meaning that project-specific tags can be created, if/when needed, when exploring (the language of) EI within the context of doctoral supervision.

Archer et al (2009: 157) note that key semantic field analysis in particular "is a useful methodology in that it enables us to discover links across different semantic fields that may not be apparent when using a keywords analysis or analysing texts manually". Key semantic field analysis allows to uncover meaningful associations and insights by considering the broader semantic context of data. By exploring semantic fields in relation to EI, I can identify nuanced connections and patterns related to EI that might not have been evident through a keyword-based analysis. For instance, when

examining the supervisory relationship, utilising the Wmatrix4 tool enables a more comprehensive exploration beyond keywords such as *rapport* and *relationship*. By considering broader semantic fields such as *Personal relationships* or *Reciprocal*, I could gain a deeper understanding of the nature and dynamics involved. In this study, these two semantic fields revealed keywords like *mutual*, *rapport*, *responds*, *sharing*, *interact*, *responsive*, *friends*, *friendship*, *meet* and *mate*. These keywords can shed light on the nature of the supervisory relationship, characterised by closeness, informality, responsiveness and approachability.

When using Wmatrix4 in conducting data analysis , the analyst should be mindful of the limitations inherent in these tools. While quantitative analysis can provide valuable insights, it should be supplemented with qualitative analysis. Archer et al., (2009: 157) stress that any “analyst must always keep in mind the limits of automatic annotation tools” and argue in this case for such “quantitative analysis” to therefore “always [be] combined with qualitative analysis”. Automatic annotation tools, although helpful, may not capture the full complexity and nuances of the data. They may have limitations in accurately identifying and interpreting certain elements or context-specific information. Therefore, relying solely on quantitative analysis may result in overlooking important insights. To address this, a combination of quantitative and qualitative analysis involving close reading and in-depth examination and interpretation of data took place. Limitations in the automatic annotation can be managed in Wmatrix4 through manual assessment of concordances and collocations in the data, as the accuracy of USAS is 91% (Rayson et al., 2004).

Along with TA, I plan to follow Archer et al (2009) in combining the corpus linguistic approach with close reading of some linguistics features. For example, Archer and colleagues (2009) explore how/the extent to which the keywords and key semantic fields identified by Wmatrix point to particular metaphors (some of which have been discussed previously by theorists interested in the work of Shakespeare). In the case of this study, the aim is to determine the meaning of the participants’ language use, what they say in regard to the importance (or not) of EI, how they relate their supervisory experience depending on their role as supervisors or supervisees, etc. As noted above, this equates to a mixed methods approach which is both quantitative and qualitative, and thus is greater than the sum of its parts. This feeds into the originality of the work, as previous studies have tended to use thematic

analysis only. By combining thematic analysis with a corpus linguistic methodology, I hope to show that the results are more robust. Combining these two approaches with a more qualitative approach focused on meaning in context at the utterance level, ensures triangulation. The aim being to seek out results from different methods (Mark and Shotland, 1987), allowing for the illustration and clarification of results from one method with findings from another (Greene et al., 1989). This should enable the study to capitalise on the inherent methodological strengths of each approach, whilst also increasing the scope of inquiry (Madey, 1982) into particular features of EI, and hence the breadth and depth of the results (Kidder and Fine, 1987).

Wmatrix4 uses the log-likelihood (LL) algorithm as one of its statistical measures (Rayson, 2003). LL is a statistical projection of how much an item/word is used in the downloaded data relative to another corpus or a proposed corpus already found in the software such as the written or spoken part of the British National Corpus (BNC): see Leech and Rayson (2014). In this study, the interview data is compared to the spoken BNC. The BNC is a comprehensive collection of language samples comprising 100 million words. It encompasses diverse sources, including written and spoken texts, aiming to provide a representative sample of British English during the late twentieth century (Leech, 1993). The spoken part constitutes 10 million words i.e., 10% of the whole BNC corpora. The log-likelihood (LL) statistical measure shows whether there is a discrepancy in the usage of a certain word between two corpora (see <http://ucrel.lancs.ac.uk/llwizard.html> for more details). The LogRatio shows how many times this discrepancy occurs. Although the LL shows the difference in an item's usage across two corpora, it does not indicate the significance of that difference. As a result, Andrew Hardie developed LogRatio to capture the significance (see <http://cass.lancs.ac.uk/log-ratio-an-informal-introduction/> for more information).

In this study, I am mixing TA and CL approaches, with the latter feeding into TA and providing quantitative evidence for the generated themes. In this stage, I am seeking to evidence how these themes were framed linguistically. Consider, for example, the concept of emotional understanding. Wmatrix4 first organises data into 21 major semantic domains (See Table 3.3 below).

A	B	C Arts and crafts	E Emotion
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General and abstract terms	The body and the individual		
F Food and farming	G Government and public	H Architecture, housing on the home	I Money and commerce in industry
K Entertainment sports and games	L Life and living things	M Movement, location, travel, and transport	N Numbers and measurement
O Substances materials objects and equipment	P Education	Q Language and communication	S Social actions come out states and processes
T Time	W World and environment	X Psychological actions, states, and processes	Y Science and technology
Z Names and grammar			

Table 3.5: The 21 Major semantic domains (adapted from (Rayson et al., 2004))

These 21 domains, as shown in Table 3.3, are further divided into 232 sub-categories (Rayson et al., 2004; Garside and Rayson, 1997), which are known as semtags (see <http://ucrel.lancs.ac.uk/usas/USASemanticTagset.pdf> for full list). The semantic domain of ‘Emotion’ is one of the 21 major domains as Table 3.3 shows. The full list of this domain indicates that it is further sub-divided into 8 sub-categories, capturing, for example, ‘happy/sad’, ‘liking’, and ‘worry, concern, confident’. Such domains and sub-categories enable me to look at the area of emotion and see where the participants have mentioned anything relating to the relevant (sub)categories. As this research is interested in the emotional dimension and, more specifically, the aspect of EI, Wmatrix4 categories and sub-categories that may be linked to emotion,

including *Emotion*, *Psychological actions, states and processes* and *Social actions, states and processes* can also be examined. Particular sub-categories worthy of note, here, include *Mental actions and processes: understand, Reciprocal and Cause and effect*. The available corpus linguistic tools within the Wmatrix4 interface mean that the researcher can also explore the participants' statistical keywords. For Scott (1996), keywords are statistically significant elements in a corpus or text that can give an accurate impression of the genre's typifying language. It is worth noting that many corpus linguistic research studies base their analyses on keyword lists that might include either significantly frequent elements (positive keywords) or infrequent (negative keywords) elements (Scott, 1996). This study is interested in analysing frequent elements in students' and supervisors' data.

Statistical significance of an item should be considered when the *p value* is less or equal to 0.01 ($p \leq 0.01$), which equates to looking at items with a 6.63 LL value or over, since this means that the confidence of significance is at 99%. This means that the probability of this item occurring accidentally is 0.01%. This value was employed throughout the analysis in this research (for more details see <http://ucrel.lancs.ac.uk/wmatrix/index.html#compare>). For 1 degree of freedom (1 d.f. is where you are comparing 2 corpora) the log-likelihood critical values are as follows:

- 95th percentile; 5% level; $p < 0.05$; critical value = 3.84
- 99th percentile; 1% level; $p < 0.01$; critical value = 6.63
- 99.9th percentile; 0.1% level; $p < 0.001$; critical value = 10.83
- 99.99th percentile; 0.01% level; $p < 0.0001$; critical value = 15.13

For more information on how to calculate the log-likelihood, see <https://ucrel.lancs.ac.uk/lwizard.html>.

Data was uploaded into the software as shown in the figure below:

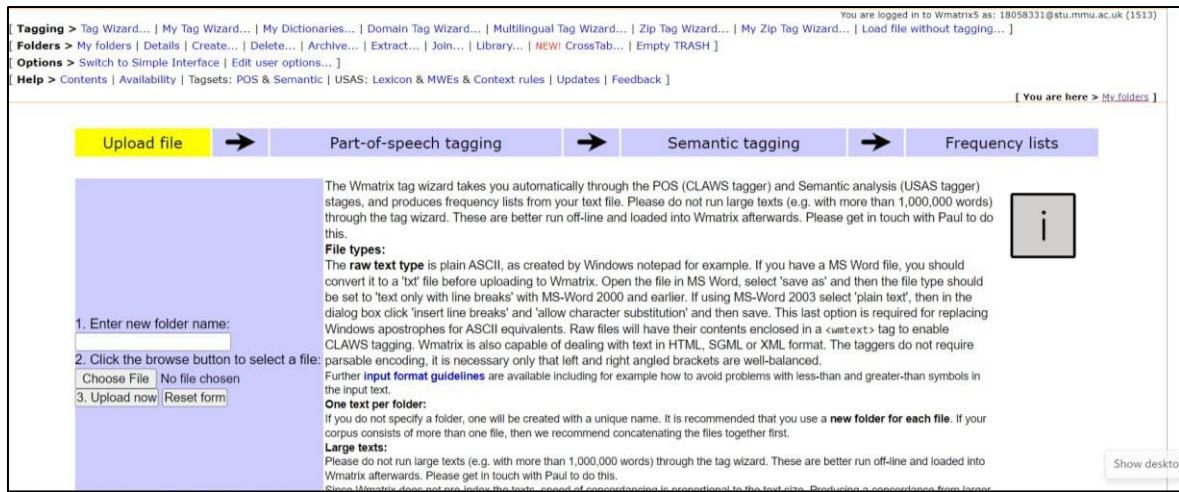


Figure 3.1: Uploading data in Wmatrix4

Data was then tagged automatically. This process went through three steps of tagging (part of speech, semantic fields, and word frequency list). The study is interested in semantic fields mainly and keyword frequencies. Keyword analysis may be used to analyse not just how sentences are produced, but also how entire sections of text flow and move (Scott and Tribble, 2006). However, this study will focus more on analysing key semantic fields. Note that “while a list of keywords is not in itself a semantic network, it provides the raw data out of which such a network might be constructed” (Thornbury, 2010: 279). Figure below shows the results after tagging was complete.



Figure 3.2: Three step tagging process in Wmatrix4

When choosing Semantic in Keyness analysis, a list of semantic fields appears, where the analyst can choose to filter this list by specifying the search, for instance, to include overused semantic fields, and specifying the search for LL and Log Ratio values, and the cut-off point. See illustrative figure below.

The screenshot shows the Wmatrix5 software interface. At the top, there are navigation links for Tagging, Folders, Options, Help, and various file operations like Zip Tag Wizard, My Zip Tag Wizard, Load file without tagging, etc. Below this is a breadcrumb trail: You are here > My Folders > Supervisors_ Last | File details | Summary sheet.

Key:

- i O1 is observed frequency in Supervisors_Last/file.raw.pos.sem.sem.fxml
- O2 is observed frequency in NORMDATA/BncSampSp.sem.fxml
- %1 and %2 values show relative frequencies in the texts.
- + indicates overuse in O1 relative to O2.
- indicates underuse in O1 relative to O2.
- The table is sorted on log-likelihood (LL) value.
- The List links on the left of the table show a list of words from the files with the given tag.
- The Concordance links on the left show a concordance from the first file (O1) for the given word or tag.
- See the help introduction section on frequency comparison and the external help on effect sizes for more information.
- Please note that the default filter includes only overused items and excludes zeros in O1.
- See the word clouds at the bottom of this page.

Simple filters:

What to include: Complete list
What to exclude: Zeros in column one
What column to sort on: Significance (LL)
Which effect size measure to show: LogRatio
How much of the table to show: LL cut-off: 6.63
Frequency cut-off: 5
Refresh table

Regular expression filters:

What to include: -
(enter , or nothing for complete list)
What to exclude: _0_0.00[^+-]
(enter !! or nothing for complete list)
What column to sort on: Significance (LL)
Which effect size measure to show: %DIFF
How much of the table to show: LL cut-off: 6.63
Frequency cut-off: 5
Refresh table

Save

Item	O1	%1	O2	%2	LL	LogRatio	Discourse Bin	Personal names
1 List1 Concordance Z4	549	2.33	65278	6.64 -	851.00	-1.51		
2 List1 Concordance Z1	14	0.06	9430	0.96 -	334.51	-3.99	Personal names	

Figure 3.3: Filtering the search process in semantic fields list

This phase allows for filtering the list of semantic fields to include, for instance, only semantic domains above the cut-off point 6.63.

The data analysis process in this research concludes with a thorough examination of language patterns, complemented by the analysis of key semantic fields and relevant keywords. This approach involves closely scrutinising the data to identify meaningful patterns and extract valuable insights.

3.6 Ethical considerations during a difficult period addressing demanding topics

Research ethics is commonly regarded as a delicate equilibrium between assessing risks and benefits, ensuring the protection of participants' rights, and maintaining fairness in the selection of the study population, and it entails protecting human participants from harm during research (Beyrer and Kass, 2002; Holmes, 2009). Given my data gathering occurred during the pandemic, ethical considerations touch all aspects of my research, from the selection of the subject to the last phase of this research. Considering ethical practice is required in all research projects, and especially in social studies, researchers should consider ethical issues at all phases of the research anyway. This includes obtaining ethical approval from the university's research ethics committee, the process of approaching participants, and the ways in which the researcher engages with their participants in order to ensure the safety of both participants and the researcher and to prevent any risks (Clark and Bryman,

2019). This might necessitate a consideration of unsafe conditions as well as the participants' beliefs and ideologies, which might vary depending on the individual. As a result, ensuring that ethical norms are followed is critical to the research's integrity. The researcher must keep such integrity throughout the process, notwithstanding the idiosyncrasies of the study demands which guarantees maintaining a respectful relationship with those involved in research. The research ethical rules provided me with a sense of responsibility towards research and the knowledge that was generated throughout this journey. It raised my awareness to my own character and virtues to carry out an ethical research with a set of value-based principles. Clark and Bryman (2019) opine that awareness of ethical principles is crucial in conducting research, which can manifest in various ways, and it is crucial for researchers to cultivate ethical awareness. This awareness enables researchers to navigate the ethics review process and conduct data collection, analysis, and dissemination stages of research in an appropriate and ethical manner (*ibid*).

Anticipating risks was considered prior to data collection; during the phase of ethical application, however, despite the preparation, unexpected events can still occur during any phase of the study, as was the case in this study where the pandemic necessitated that I reconsider the data collection settings, participants' recruitment, and new potential risks. Dealing with a topic that involves students' and supervisors' experiences, as well as emotion and EI, can be a challenging task even without a global pandemic, given that the process of pursuing a PhD is notable for its emotionally charged nature (Wang and Li, 2011; Ismail et al., 2013; Wisker et al., 2010). Hence, reflecting upon the questions to be asked and the manner in which to handle participants' emotions if they occur was one of the priorities. My primary goal, in this study, was not to discuss unpleasant experiences. However, I anticipated that participants may talk about a potentially emotional situation, given the experience of doing a PhD per se, and the emotional effect it is known to have on students as well as on supervisors (Wang and Li, 2011; Ismail et al., 2013; Wisker et al., 2010). I followed my university guidelines of safety and confidentiality of participants with as much consideration as possible, as I was particularly aware that I was collecting data during the pandemic and that I was dealing with a topic that, as indicated above, is known to be associated with potentially "rough" periods (for both students and supervisors). Indeed, I found this to be challenging for me, as the researcher, as well

as for the participants, who represented PhD students at various stages of their research, and supervisors trying to support students who were impacted by this unforeseen global pandemic (on top of providing support to a cohort known to go through peaks and troughs, because of the very essence of a PhD: see, e.g., Wang and Li, 2011; Wisker et al., 2010; Ismail et al., 2013). Manchester Metropolitan was among the universities that change their policies and alter all traditional schooling into online sessions and courses. Following receiving the first approval to start data collection and distributing leaflets to conduct interviews with participants within the university premises to ensure participants' safety, I had to make necessary changes due to the pandemic, such as shifting to online recruitment and data collection settings, which necessitated applying again for ethical approval that was granted in June 2020. I conducted interviews via virtual meetings on Zoom and Microsoft Teams after this date. These changes were crucial to ensure the safety of participants and comply with the ethical requirements of the study.

Data collection involved approaching Algerian international PhD students and UK based supervisors. Given that there is a shift in students' identities from being a mere student to an independent researcher (Baker and Pifer, 2011), this is quite demanding, and it becomes even more challenging in the context I am conducting my research in, since I am tackling the psychological aspect in academia (the supervision of an underexplored population: Algerian PhD students in a UK higher education institution).

Emotion is a sensitive topic, thus, I had to pay attention to the formation of interview questions, namely what the best ways are to approach this topic while respecting the researcher's and participants' wellbeing, creating/maintaining good rapport with participants, and ensuring their privacy and confidentiality. I was always careful to ensure that participants are aware of their right to withhold an answer or withdraw from the study if they so desired. Fortunately, no one opted out. Although discussing such topics during that difficult time caused me to consider the prospect that participants may be apprehensive to participate, they were willing to take part in this research as they expressed an interest in research that addressed the psychological roller coaster of pursuing a PhD. J H Watts (2008) believes that the emotions of the researcher and participants are among the factors that may be difficult to manage in social research studies and being aware of the potential for emotions to "disrupt" even the most well-prepared plans should be part of the researcher's ethical consideration. It is essential

that ethical awareness is present throughout the study process. In adherence to my university's ethical guidelines, I recognised the importance of upholding research ethics and protection of participants and myself as a researcher. This included establishing rapport with participants to foster a comfortable environment for discussions, prioritising their well-being by avoiding harm or deception, and ensuring strict adherence to principles of privacy, anonymity, and confidentiality (Clark and Bryman, 2019).

The clarity of consent form is a crucial element in the process of applying for ethics. I had the chance to have a discussion with my supervisor which made me more reflective and considerate about how to ethically discuss topics that involve emotions and the EI of supervisors and students, as part of a process that may include disruptive experiences. I took into account that my participants are aware of their right to withdraw at any point of the interview. I sent an explanatory letter via email to all of my participants, together with necessary consent forms and information sheets, to explain all they needed to know about their involvement in my research: the research description and participants' rights. I initially contacted my participants through email and agreed on the platform for conducting the interviews, making sure participants' autonomously and voluntarily accepted to take part in the study (Convery and Cox, 2012).

Another crucial ethical principle is to ensure privacy and confidentiality. Since my core data collection tool is interviews, gaining participants' trust was essential as I am discussing their experiences, and trust is key to gaining genuine information (Clark and Bryman, 2019). Since physical access was difficult, I was interested in gaining acceptance from the study participants, which is referred to as 'facilitation of social access,' with Clark and Bryman identifying trust, rapport, and credibility as attributes to achieve it (2019). They suggest that the consent form is one step toward establishing trust, as is being honest with individuals about their engagement in research and how the information will be utilised. Participants were informed that their names will not be used. The use of pseudonyms was the next step in maintaining their anonymity and privacy. When reporting data in my thesis, I have been careful to ensure that I do not provide any detail that may identify any of my participants or others. I also stored both the real names and the pseudonyms in a password-protected

computer to allow me subsequently to identify the actual participants during the data analysis phase (if/when relevant to do so).

Given that I am studying aspects in relation to emotion and EI in the context of doctoral supervision, I had to consider the potential impact on the participants psychologically to avoid any potential harm. I carefully chose questions that do not by any means target unpleasant instances especially during that period of time where mental health was of a great importance. I conducted interviews online, so I had to identify and anticipate any hazards that may arise during interviews and affect my participants in any manner, especially because I was gathering accounts of their personal experiences while they were still carrying out their study and during the pandemic.

Given the subjective nature of harm (Clark and Bryman, 2019), especially psychological harm, establishing rapport with my participants was critical in determining that conversations did not move into potentially harmful directions.

In my research, I have maintained a strong commitment to ethical principles, ensuring strict adherence to the consent form's agreement, knowing that deceiving participants not only harms them, but also the integrity of my entire research. Such responsibility is always considered to prevent conflicts and deception that directly impact on the essence of doing research. I noticed at the beginning of the interview, some Algerian student-participants seemed reluctant to talk about their emotions, with a tendency of emphasising that: "I prefer to keep my supervisory relationship professional". This was understandable as the current study pertains to a relatively sensitive aspect of emotions that can be impacted by numerous factors such as culture, ideology and education. I did not expect my participants to know much about EI. I am aware that some researchers consider that an emotional dimension impedes the ultimate purpose of education (Ecclestone and Hayes, 2009; see also Section 2.3.3). It is for this reason that I introduced EI to my participants. I chose definitions that cover what most EI scholars agree with (see Section 2.2.3). That is, that EI has an intrapersonal aspect that involves understanding and managing one's own emotions, and an interpersonal aspect relating to understanding other's emotions and managing them accordingly. This was part of the introductory qualitative questionnaires that participants answered prior to the interview (see Section 3.4.2).

The interview questions were designed to discuss participants' recollections of situations where they found the supervisors' practices to be helpful, as well as areas where they saw potential for improvement and to examine how this would fit with the EI associated skills. As the interview questions progressed, the conversation focused on how feedback and advice are provided, the topics students and supervisors address in the questionnaires, and any discussions of issues and problems that may have an influence on their research project. I made it clear at the start of the interview that the goal was not to elicit disruptive emotions, but rather to ask participants to recall and comment on instances which they considered to be supportive when it came to the supervisory process, and then to see how these instances can relate to EI associated skills.

In attempting to fulfil the requirements of my university's ethics committee, ethical considerations extended to the peculiarities of the research, participants and settings. I had to reflect and consider cultural differences within one country and individuals themselves. For instance, the extent Algerian students would be open to talk about their emotions, as expressing emotions may be regarded a 'sign of weakness' in some cultures (Kopelman et al., 2006; Tan and Nareyek) or as inappropriate in certain contexts such as the case of this study (doctoral supervision). See Section 4.1.2.

3.7 Researcher's reflections and positionality

Engaging with PhD students and supervisors has provided me, as the researcher, with a deeper understanding of their perspectives, types of concerns and issues embedded in their narratives. Respecting participants' stories and experiences was one of my priorities as well as setting boundaries as to how far I could go with the conversation without fundamentally causing any kind of harm to the participants.

My position as an insider researcher made it easier for me to build rapport quickly with student-participants compared to supervisor-participants, since we share similarities with regard to cultural, educational and social backgrounds. Factors such as reduced culture shock, shared context, backgrounds and values with participants can enable insider researchers to access information that might not be readily available to outsiders (Hellawell, 2006). Merton (1972) defines an insider researcher as someone

who shares the same cultural and social environment as the participants under study. Being an insider researcher made it easier also to access participants (Dwyer and Buckle, 2009). However, one disadvantage of being an insider is taking things for granted given how student-participants see you as a colleague sharing similarities even with regards to some experiences: I have known some of my participants since undertaking a pre-sessional course at CCCU (Canterbury Christ Church University) for a short period prior to applying for a doctoral position. If participants have previous experiences similar to the researcher's, the latter may not request further information from them. As a result, I had to step back at times and try to view the individuals' experiences objectively. According to Asselin (2003), the insider researcher should collect data keeping their "eyes open" while also thinking that they know nothing about the issue under investigation. Asselin emphasises the necessity of bracketing preconceptions; while the researcher may be a part of the culture under study, they may not comprehend the subculture as fully as they need to. At the start, it was a bit challenging to interview those students as they assume I had been through similar situations, which they saw unnecessary to mention in detail, among which was how they felt and reacted to events. This necessitates an outsider identity to ensure the research's credibility and the authenticity of the gathered data, according to Savvides et al. (2014). This was managed through asking prompt questions to let participants tell their stories themselves. Participants' experiences and their interpretations are different from one another given their idiosyncratic views of the world around them and the varied/unique circumstances surrounding a given experience. De Fina and Perrino (2011) suggest that the researcher's status is subject to negotiation and is influenced by the dynamics within the research setting. This negotiation process can result in diverse outcomes, depending on how participants align with each other.

When it comes to doctoral supervisors' experiences, I was more of an outsider researcher which allowed me to approach the research from a different and more objective angle (Merriam et al., 2001), and thus hold different perspectives to those of students with whom I share significant similarities and gain insights about supervisors' points of view. This means that my positionality was a mixture of insider and outsider albeit to different research situations and requirements.

I effectively adapted the view that considers emotion and cognition as inseparable as both accompany the production and processing of knowledge (Mayer et al., 2001).

Emotions are regarded as an essential aspect that needs to be considered in social research, where there is interaction with human beings (J. H. Watts, 2008). Considering that the topic of this study is about emotion and EI, it is pertinent to address how I considered/took account of my own emotions and those of my participants prior to, during and after interviewing. Shifting between insider and outsider researcher made the discussions with two different groups more fruitful and insightful as it helped when it came to obtaining perspectives of both parties in the supervisory relationship. According to Arthur (2010), a researcher's identification may alter depending on the environment, as a researcher's status as an insider or outsider reacts to the social, political, and cultural values of a specific context or time (as cited in (Milligan, 2016).

Being an insider helped me in empathising with my participants when it came to expressing that I understand what they were going through without necessarily influencing their perspectives and opinions. The researcher has to consider the aspect of power dynamics between the researcher and participants and the extent to which this can have an influence on the respondents' answers (Barbour, 2001). Furthermore, because the concept of harm is a subjective experience in social research, I had to determine what might appear harmful in my research as participants sometimes wanted to mention some unpleasant experiences when asked what aspects they saw as needing improvement. Thus, it was pivotal for me, as the researcher, to ensure participants were aware of their right to refuse to answer any question or withdraw at any time of the study (as previously noted, in Section 3.6, above).

Participants' feedback on the interview was considered and appreciated. Respondents told me that they valued highlighting the psychological aspect of supervising and pursuing a PhD. Other participants undertook some research of their own before sitting for the interview. One student expressed their interest in the topic as they had prior interactions with the EI concept at university in the form of a lesson as part of a general module in Algeria. One supervisor said they had a personal interest in EI and how it functions to assist in helping them deal with children. However, most participants said that they did not have prior knowledge about the concept, and that taking part in this study led them to do some research after answering the questionnaires and prior to sitting for the interview. Student-participants expressed that they found the interviews a chance to somehow 'offload' during that period of time with someone who is going

through somewhat similar struggles, as we were all PhD students and navigating the challenges of the global health crisis. Student-participants told me that those discussions made them reflect on their relationship with their supervisors and how this can/could have an impact on their actual progress. Supervisors' comments following the interviews were also appreciated as they valued my initiative in raising the emotional aspects of doctoral supervision and suggested they enriched the discussion when signalling (what, for them, equated to) other (related) aspects such as the need for cultural sensitivity and emotional maturity when supervising especially international students.

Alongside the importance of the researcher's positionality, researcher's reflexivity is an accompanying element throughout the research process (Takeda, 2013). A researcher reflexivity involves the ongoing internal dialogue and critical self-evaluation by a researcher regarding their positionality. It encompasses a conscious and explicit awareness of the researcher's positionality negotiation, including their subjective standpoint, biases, and potential influence on the research process and findings (Dörnyei, 2007). According to Flood (1999), reflexivity in research pertains to the researcher's ability to examine their biases, assumptions, and positionality throughout the research process. It entails acknowledging the potential impact of their backgrounds, experiences, and beliefs on the research outcomes and maintaining transparency by openly acknowledging these factors. Thus, lacking a certain level of reflexivity, any research becomes purposeless and lacks insights (*ibid*). Therefore, stepping back and reflecting on the research process from a broader perspective, to comprehend the role of oneself in knowledge creation becomes essential. This introspection involves monitoring biases, beliefs and personal experiences within the research, while carefully maintaining equilibrium between the personal and the universal aspects (O'Leary, 2004; Berger, 2015). Monitoring researcher's emotions is regarded as a part of ethical consideration (J. H. Watts, 2008). It is also pertinent to highlight that by practicing reflexivity, we gain the ability to observe and understand our own feelings and positionality. This analytical examination of the dynamic between the researcher and the research subject becomes a significant source of data in its own right (Takeda, 2013). By way of illustration, it was essential to reflect on the extent to which participants were aware of the concept of EI and how this might influence their perspectives and views towards EI. This aligned with one of this study's aims,

which is to explore students' and supervisors' subjective understandings of EI and its functionality in the context of doctoral supervision. According to social constructionism, reality is not an objective, fixed, or universal concept, but rather a social and cultural product, which is created through language, social interactions, and varies across different contexts and cultures (V. Burr, 2015) (see also Section 3.2). Given that social constructionism builds on the principle that reality is constructed, this provided room for flexibility when it comes to the researcher's as well as the participants' knowledge about the concept of EI.

At the start of the interview, several participants emphasised the importance of not involving emotion in the context of doctoral supervision to maintain a sense of 'professionalism' and a formal relationship. However, this tendency appeared to alter as the interviews progressed. It is believed that the development of trust and rapport throughout the interview and the evolution of conversation made participants feel at ease to express themselves more accurately (Clark and Bryman, 2019). Furthermore, it would have been difficult to discuss EI without context, hence discussing EI in the context of doctoral supervision seemed to help participants explore something to which they can relate. For instance, when considering feedback, both students and supervisors expressed how that process was perceived as overwhelming and led to various emotional reactions, especially when students felt they were given negative feedback and signalled diverse reactions to feedback in consequence (see, e.g., Section 4.1.2.4). Supervisors further expressed a need to be aware of students' concerns and to address them on time, with many adding a belief that cultural sensitivity is key after noticing some of their students were struggling to express themselves openly (see, e.g., Section 2.4).

3.8 Conclusion

This chapter provided a rationale for how and why the social constructionist paradigm was adapted in this research. The research design is a mixed method approach, with the qualitative methods providing the basis for analysis and interpretation, and the quantitative method serving as a complementary approach to generate additional insights and support the qualitative data. The aim is to identify patterns in their use of language that may be indicative of skills associated with EI, such as the ability to

perceive, understand, and manage emotions in oneself and in others. This is for the purpose of exploring EI in the context of doctoral supervision of Algerian international students in a UK higher education institution. The documents pertaining to the data collection phase are provided as Appendices (see Appendix C-J). Ethical considerations have also been addressed in this chapter as the study involves human beings and psychological aspects surrounding the doctoral journey. Documents pertaining to ethical approval can be found in Appendices A and B. The pandemic period has been highlighted, in addition, since data collection took place during the outbreak of Covid- 19, where various potential risks have been addressed and managed throughout the research process.

The following chapters will discuss the research findings. Chapter 4 will cover the Thematic Analysis of the data, which will explore the students' and supervisors' perspectives of EI. Chapter 5 will further analyse participants' interview data based on the themes generated in Chapter 4 to evidence how EI is linguistically framed in the context of doctoral supervision.

4 STUDENTS' AND SUPERVISORS' PERSPECTIVES ON EI-ASSOCIATED SKILLS IN DOCTORAL SUPERVISION

4.1 Students' perceptions of EI in doctoral supervision

Following Braun and Clarke's (2006) thematic analysis (TA) which comprises six steps as detailed in Section 3.5.1. This section presents TA of the qualitative data collected from interviews and questionnaires with Algerian PhD students, aiming to explore their understanding of EI and their perceptions of their supervisors' practices that pertain to EI-associated skills. Through the data analysis process, common themes and patterns in students' narratives and observations were identified, shedding light on how they perceived their supervisors' ability to manage their emotions, provide support and motivation, and establish trust and rapport. This section contributes to a better understanding of the role of EI in the supervisory relationship and provides insights into how supervisors can improve their EI skills to better support their students.

4.1.1 Students' understandings and conceptualisation of EI

To discover students' knowledge about the concept of EI, I asked them about their familiarity with the term and whether they had prior knowledge of EI before taking part in my study. Students' answers revealed that they have various levels of knowledge about EI, ranging from those who have never heard of it before taking part in this study, to those like Meriam who have considerable knowledge of EI. Meriam signalled that she had a prior conception due to EI being part of her Master's level studies:

I am familiar with this [EI] because in my Master's studies, we used to have human resources development... I myself used to present a lot when it comes to this topic.

(Meriam, 22/12/2020)

The rest of the students had either never heard of EI or had heard of it but had not thoroughly researched it. Some of them were familiar with the concept of EI, but less so with its various models and components. Dalia, for example, was taught about it as part of individual differences and how EI can teach you how to deal with children. Dalia stated:

I think first time I heard it [EI] was in a session in my Master's degree in applied linguistics. A teacher talked about it. He talked about social intelligence ... then in the individual differences, he talked about emotional intelligence and about how to deal with students but he didn't talk about it deeply.

(Dalia, 17/11/2020)

Similarly, Fouzia stated:

I had like a very shallow idea about it before you gave me that questionnaire. However, after giving you back the questionnaire, I had a look on the Internet of what is meant to be emotionally intelligent, and I find it quite interesting topic to be honest.

(Fouzia, 26/11/2020)

Others also stated that they were not familiar with EI until they took part in my study, and that this led them to search for additional information concerning it. Several participants nonetheless knew of it only through the questionnaire (Hiba, Israa, Camilia), where I provided some definitions of EI. For example, Camilia stated:

I haven't heard of it before being in your study and being provided that questionnaire.

(Camilia, 01/12/2020)

One student stated that the term was difficult for her to grasp:

it took me some time because I couldn't understand this term. Well, it's not my area of study.

(Boutheyna, 11/30/2020)

Following this, students were asked to provide their understanding of EI based on the aforementioned facts that shaped their perceptions. Interestingly, these definitions reflected many aspects related to EI.

There was a recurring emphasis by some participants on attributing EI to the individual's emotions and how they handle them, which indicates their awareness of the intrapersonal aspect of EI. Three students mentioned intrapersonal aspects of EI when they stated that EI is about one's inner emotions and how they deal with them. Aysha stated:

I think it [EI] is about emotions affecting the way you think positively or negatively. It's like how emotions make you think in a certain way or different way ... maybe.

(Aysha, 22/11/2020)

This view was echoed by another participant (Fouzia) who explained:

The strategic use of emotion to get the best results from, let's say, your academic journey. In other words, I would say the strategies that I would trick my mind with to keep myself on track without losing motivation to carry on the work.

(Fouzia, 26/11/2020)

Aysha and Fouzia also emphasised the relationship between feeling and thought. This is reflected in Mayer and colleagues' EI model, which includes the ability to use emotions to facilitate reasoning because how people feel affects how they think and make decisions (John D Mayer and Salovey, 2007; John D Mayer and Salovey, 1997). Interestingly, Dalia went on to emphasise the notion of wisdom and cautiousness, where she stressed that managing emotions leads to wise choices and decisions.

For me, emotional intelligence is about how to manage your emotions to be in your advantage when you are in such situations. For example, they said don't make a decision when you are happy or when you are angry. That's part of the emotional intelligence, because sometimes you make stupid decisions when you are so happy, and sometimes when you are

angry you will be so judgmental if you don't manage your emotional state on that time, you will make wrong choices... it's about how you relatively ... put your emotion in your advantage and you manage it.

(Dalia, 17/11/2020)

Many studies support the argument that emotions influence perception, decision making, and judgement, as EI scholars and other researchers have demonstrated (Achar et al., 2016; Angie et al., 2011; Rausch et al., 2011).

When explaining her understanding, Boutheyna stressed the importance of preserving positive moods and discarding negative moods that affect one's thoughts. She stated:

you have to be intelligent enough with yourself to get rid of negative vibes and carry on with your positive vibes and to control the situation... to do, like, do not let bad emotions control your thoughts.

(Boutheyna, 11/30/2020)

Unlike Boutheyna, Hiba referred to the notion of identifying and accepting both negative and positive emotions as part of EI. She said:

I know it's about being aware of what you're feeling in certain situations. I'm just saying I am feeling angry and feeling sad just to validate yourself, acknowledge what you're feeling, and think about yourself as more than just happy and sad. Just say I'm feeling frustrated you know other emotions.

(Hiba, 23/02/2021)

In this excerpt, Hiba highlighted the importance of accuracy and the linguistic repertoire when attempting to express oneself. In addition to the focus on self, 5 participants demonstrated that EI also (i.e., simultaneously) involves interacting with the emotions of others. This notion was referred to by Gardner (2011) as 'interpersonal intelligence', in Goleman's EI model under social awareness and relationship management clusters (Cherniss and Goleman, 2001) and in Mayer et al.'s ability model under understanding and managing emotions in oneself and others (Mayer et al., 2016). This EI skill was reflected in Meriam's following comment, for example:

I would say the extent to which you come to understand your emotions and express your feelings in the right moments and the right place, and the extent to which also you understand the emotions and feelings of people.

(Meriam, 22/12/2020)

Similarly, Israa stressed:

I understand that it's being able to know how you feel and then know how other people around you feel.

(Israa, 30/11/2020)

The aspect of Empathy was mentioned by students many times while describing EI, in line with it being an important component in EI (Bar-On, 1997; Mayer et al, 2001; Goleman, 1996). Emotion expression was also seen as part of EI. Israa for instance stated that to be emotionally intelligent, one not only understands emotions, but also can identify and (appropriately) express (relevant / context-specific) emotions. She explained:

So, I think if you are emotionally intelligent, you can know why you're feeling the way you are feeling, but it's also about other people. So, it's like, for instance, if someone is talking to you and or their behaviour changes or something like that ... you can tell this ... you can tell the change ... you can feel that there's something not the same... that they are feeling differently.

(Israa, 30/11/2020)

This is related to the ability to identify and understand emotions in oneself and others, namely the ability to perceive emotions in oneself and others, as articulated in Mayer et al.'s EI ability model (2016). "Emotions contain valuable information about relationships and about the world around you. This ability to perceive emotions starts with being aware of these emotional clues, and then accurately identifying what they mean" (Mayer and Salovey, 2007: 2). Another interesting point highlighted by Israa related to the ability to detect others' emotions through their behaviour. This significantly exemplifies the (aforementioned) aspect of empathy within EI (see, e.g.,

Cherniss and Goleman, 2001). This could be linked, in turn, to what Hiba said about the purpose of EI when she stated:

emotional intelligence is understanding the feelings you have and being able to control your feelings, and then seeing what other people are feeling, recognising them... trying to help them through their feelings and using all of those feelings just to make a successful conversation.

(Hiba, 23/02/2021)

This is a rather remarkable point raised by Hiba, given that we can link it with not only the key EI skills of understanding, controlling, recognising, and using emotions (Mayer et al., 1999) but also the crucial role they can play in facilitating (effective) communication (Sinha and Sinha, 2007; Jorfi and Jorfi, 2012). Sinha and Sinha (2007) maintained that effective communication requires EI, and there is no doubt that the two are inextricably linked. For any type of effective communication to arise, EI is needed. In relation to this latter aspect, Meriam highlighted the importance of active listening. She said:

being emotionally intelligent is trying to listen to people when they need to be listened to. At the same time, try to see situations not only from your own personal perspective. Try to look at it from different aspects and perspectives.

(Meriam, 22/12/2020)

Meriam's comment highlights the aspect of effective active listening; which is regarded as an essential non-verbal skill for effective communication (Kacperck, 1997; Kalavathi and Chandran, 2021), as one characteristic of EI. She saw this is significant when it comes to her relationship with her supervisor stating that:

the more you talk about your struggles you're having in your PhD with someone who understands you, the more you realise it is not really grave, it's something that can be sorted out.

(Meriam, 22/12/2020)

Meriam raised a significant point concerning communicating to people, she mentioned one facet of empathy, through providing people a listening ear while maintaining

openness to various viewpoints (Salem, 2003; Hardee, 2003). This is also evident with Caruso's (1999) argument that higher EI encourages more creative thought, such as the ability to view problems from multiple angles and the ability to act efficiently in social contexts.

Another interesting point mentioned by Hiba in the previous extract “being able to control your feelings” relates to the management of emotions, which is addressed in almost all EI models (Daniel Goleman, 1996; John D Mayer and Salovey, 1997; Bar-On, 2006). These researchers agree that: “people with high EQ use various skills or abilities to manage their own emotions and to influence the emotions of others” (Ackley, 2016: 271). This was articulated by students through their use of different expressions such as: “dealing with emotions”, “control[ing] your feelings”, “handling emotions”, “manag[ing] your emotions” and “overcoming bad moments”. For example, Boutheyna talked about disengaging from bad moods in order to (better) handle situations. She stated, for example, her association of EI with the ability “to get rid of negative vibes and carry on with your positive vibes and to control the situation”. In the MSCEIT (Mayer Salovey Caruso Emotional Intelligence Test) report, Mayer et al. addressed this aspect under the cluster of managing emotions when they stated: “it may be best to disengage from an emotion and return to it later in order to manage it effectively” (Mayer and Salovey, 2007: 3). Dalia also mentioned the aspect of emotional management when defining EI and pointed at using emotions for one’s best interest:

For me, the emotional intelligence is about how to manage your emotions to your advantage... if you don't manage your emotional state on that time, you will make a wrong choice.

(Dalia, 17/11/2020)

It is worth noting that the 7 participants mentioned the aspect of managing one’s emotions. Only two students (Meriam and Hiba) added that EI is also related to managing others’ emotions as well when they said: ‘knowing about the feeling of others and the ability to manage them’ and ‘seeing what other people are feeling, recognising them trying to help them through their feelings’.

The findings, taken together, shed light on students' understanding and conceptualisation of EI and which constituent elements of it have been significantly mentioned when it is explained. As previously noted, before taking part in the study, students mentioned they did not have knowledge about EI as much as they did after taking part in this study. Their understanding of EI was articulated in their conceptualisation of this notion when they could address some of its components. Understanding emotions and emotional management in oneself were the most prominent EI components students addressed, indicating that students frequently focus on their own feelings when thinking about EI. Some students (specifically, Aysha, Fouzia, Boutheyna, and Dalia) attributed EI to only intrapersonal skills. Others (specifically, Camilia, Hiba, Israa, and Meriam) referred to both intrapersonal as well as interpersonal skills when seeking to explain their understanding of EI and its functions.

The next section explores whether similar (or diverging) EI skills can be observed in the context of doctoral supervision.

4.1.2. EI associated skills in supervisors' practices (students' narratives)

This section will explore the practices described by students in their interactions with their supervisors, one of which was the empathy (Goleman, 1996) that was reflected in and through, for example, the supportive environment their supervisors provided during meetings and communications: it was also something they signalled their appreciation of. When it comes to the context of doctoral supervision, emotional support has several facets. In this analysis, emotional support was examined from two perspectives. First, where the supervisor acts as the recipient by providing a place for students to talk and listening to them. Second, when students are the recipient; supervisors speak so that students listen to them. In discussing this, two aspects in particular have been selected given their significance, 'empathy' and 'approachability'. Thus, this section will discuss how EI is prevalent in supervisors' practices through their students' eyes. Students felt their supervisors were open to listening to their

concerns, and they discussed how this, in turn, helped them better communicate with them.

4.1.2.1 Supervisors' empathy and approachability

This section will emphasise how supervisors' empathy was observed by students. When discussing supervisory practices, students tend to emphasise that approachability is vital in the supervisory relationship to feel safe to ask questions. For example, Camilia said:

I can discuss the little issue I face, especially that she [supervisor] gave me her phone number saying: 'if you ever feel not good, unwell, or stressed, you can text me and I will be happy to help' ...that was great because this change my attitude towards her.

(Camilia, 01/12/2020)

When describing her supervisors' empathy, Camilia appreciated the little acts their supervisors do in order to appear friendly and approachable, such that her supervisor provides her phone number to contact her. Perrine (1998) defines approachability as: "the perception that a source is warm, caring, and easy to talk to or meet" (as cited in (Porter et al., 2007)). Approachability was also seen as key to Hiba being able to ask questions during supervisory meetings. She said:

I got there, and it started being so much more relaxed because he was really easy to talk to ... So, in the beginning, when I used to call him by the last name, it was really more professional... it was difficult to ask him questions.

(Hiba, 23/02/2021)

Similar to Hiba, Meriam emphasised how calling her supervisor by their first name reduced her stress level.

as Algerians, we see supervisor is someone great. We need to call them Doctor. I used to call her [supervisor] whenever I send her an email, I need to write Doctor plus her full name. She [supervisor] told me: 'it's Ok,

there is no need to do so [calling her supervisor by Doctor and/family name] just call me by my first name'. So, at the beginning I was a bit stressed, but then it was ongoing.

(Meriam, 22/12/2020)

I see them [supervisors] as people of authority. The supervisors as people of authority, like knowledgeable. And it's very different. I see myself as inferior to them in terms of knowledge.

(Camilia 01/12/2020)

Meriam said that her supervisor told her that there was no need to call her 'Doctor' or by her family name, and instead instructed her to use her first name. Meriam initially felt stressed or uneasy about this change in how she was expected to address her supervisors. She explains that, as Algerians, they address their supervisors with professional titles such as doctor followed by their full name. This is seen as a sign of respect and honour for the supervisors' professional achievements. However, as time went on, Meriam became more comfortable with using her supervisor's first name and the new way of addressing her become an ongoing and accepted practice. The aspect of cultural differences will be further discussed in Section 6.6. This was also addressed by Hiba and Boutheyna, who expressed the cultural norms and expectations in Algeria regarding the use of professional titles and last names to address supervisors. Being professional was also linked to disregarding emotions in the supervisory relationship, which was frequently mentioned by students at the beginning of the interviews when discussing the supervisory relationship. Students tended to emphasise that 'I tend to keep it professional' when they were asked about discussing their concerns to their supervisors. However, this attitude has been found to change as the interview questions progressed, as approachability and accessibility were valued by students. For instance, Aysha said:

I think I would not do it without my supervisors who back me up whenever I'm stuck or having an inquiry that seems to me stupid, but they don't make you feel like stupid. So, they are always here for me, and it makes it easy... yes ... everything gets easier when you have a supervisor like mine.

(Aysha, 22/11/2020)

Aysha explained how her supervisors being non-judgemental made it easy for her to approach them with her questions. This is in line with Azure's study (2016), in which students appreciated their supervisors' approachability, perceiving it to be a means of creating a positive and welcoming atmosphere that made them feel comfortable asking questions or seeking clarification on their research projects. According to Gurnam Kaur et al. (2014), approachability is one of the requirements for successful postgraduate supervision that provides a safe environment in which to express concerns. Similarly, in their book, *Establishing effective Ph.D. supervision*, Cullen et al. (1994) maintain that one of the criteria of effective supervisors is being approachable and friendly. This is evident, in turn, in a study by Izah et al (2012: 221) who opine that "supervisors should be friendly, approachable and flexible as well as knowledgeable and resourceful". As the aforementioned student's comment reveal, supervisor's approachability was emphasised.

Students also valued the importance of regular meetings with their supervisors as a means of staying on track with their progress and gaining support and guidance. Camilia said:

discussing your ideas with them as experts ...I discussed this with them ... after that, I felt really relieved. Before... I was really stressed and uncertain and lost, but when reassuring me that 'you are doing enough work ... nothing to worry about concerning your progress', now, if I don't do a meeting with my supervisor, I would feel very stressed.

(Camilia, 01/12/2020)

Aspects of approachability were also signalled by Meriam in describing her supervisor who used to share her experiences when she was a PhD student, as a means of signalling empathy, which in turn changed her attitude towards her supervisor.

... this aspect has changed a lot ... from being afraid to share and talk about concerns and wellbeing and how you're not feeling okay ... to shar[ing] everything ... what I could actually notice in the meetings, they can talk to me about their academic life ... how they were feeling afraid about presenting in conferences.

(Meriam, 22/12/2020)

Six interviewees appreciated that, at least, one of their supervisors were available when needed, which necessitates communicating and voicing concerns and ideas. However, two students (Dalia and Camilia) encountered issues concerning one of their supervisor's responsiveness and (perceived lack of) empathy. Dalia said:

I think that because of the lack of communication with my supervisor I didn't progress... ... I know as a PhD student I have to be independent, but sometimes with your supervisor asking you and keeping an eye on you, it keeps you motivated and working, but since this lack of communication, I felt that I'm procrastinating ... I felt that I am withdrawn ... my research is context based ... that's why he is not feeling involved in my research.

(Dalia, 17/11/2020)

The statement indicates that Dalia acknowledged that her supervisor was overworked; given his many other responsibilities, but the lack of communication hampered her progress because she mentioned that she needed his assistance as well, since she is also one of his responsibilities. This indicates a discrepancy between the student's need for her supervisor's guidance and the supervisor's use of a "freedom provider" mode or 'neglection' as she described it. Likewise, Taylor et al. (2019) who describe this issue as 'benign neglect', which, they claim could be one of the influential reasons for low completion rates in the presence of such mismatch between the student's need for support and the supervisor's 'benign neglect'. Benign neglect, which is a mismatch in the interaction between a student's needs and their supervisor's monitoring style, can lead to students becoming disappointed and feeling isolated (L. McAlpine and Paulson, 2010). Dalia has expressed frustration as she felt her supervisor is uninterested in her subject, which reinforced her feeling isolated especially when she sensed her supervisor is not interested and engaged in her research. She acknowledged that she is expected to be independent in her research as a PhD student, but she also valued the idea of support and motivation from her supervisor that can come from regular communication and guidance and believed that this was lacking. While it is important for students to develop as independent researchers, it is

equally crucial that they are not neglected by their supervisors, as students still need their supervisors' academic support, monitoring and advice (L. McAlpine and Paulson, 2010; Bengtsen, 2011). Dalia further elaborated, describing her problem as follows:

I sent him an e-mail that I have a problem with my data ...he didn't reply even that I have received it...I sent him again... but he didn't reply... Since he didn't answer me ... so that's the last time...you discuss your struggles when you have a listening ear to you, or you think that it will help, but if I'm telling my struggle to someone, I don't think that will help me in this situation, I don't think so... I thought that he will give me some recommendations as I told him... he always insisted and always reminded me that it's my research, it's not his research. That's why he is distancing himself from my research.

(Dalia, 17/11/2020)

A lack of active listening, which is part of EI under the skill of empathy, along with lack of interest in students' research can lead the student to be dissatisfied with his or her experience and may lead to withdrawal. According to Templeton (2019), inadequate supervision, characterised by benign neglect and abandonment, leads to the voluntary or compulsory withdrawal of doctoral candidates. Conversely, a supportive supervision approach fosters doctoral completion.

Dalia also mentioned the issue of poor communication through non-responsiveness and lack of interest in the student's research, as well as the lack of feedback provision. She felt her supervisor was not interested in helping her and that she was left to deal with the problem on her own. Sinha and Sinha (2007) claim that one of the underlying causes of interpersonal conflicts is lack of communication. When communication is hampered, emotional barriers may form when what is felt is not expressed, or when what is expressed is not listened to with empathy and understanding, a frustration wall emerges between two people (or between an individual and an organisation) (Verma, 2015). Dalia's experience of attempting to reach out for her supervisor's assistance several times without receiving a response discouraged her from sharing her concerns again.

I felt indifferent ... you're no longer concerned about anything. For example, you really don't know what you are feeling, if I know what I am feeling, I can do something, but if I don't know... so you feel empty.

(Dalia, 17/11/2020)

Dalia developed a hiatus as a result of this, and she was unable to deal with her own feelings. She experienced a sense of emotional detachment and emptiness. When someone feels neglected or unsupported by another person, it can lead to a range of negative emotional experiences, including frustration and disillusionment (Wisker and Robinson, 2013). In the case of Dalia, she described a sense of indifference, which suggests that she has become disengaged from her work and her relationship with her supervisor. She may no longer feel invested in her research or her academic pursuits and as a result, she may be struggling to find meaning and purpose in her work. While Dalia expressed her dissatisfaction with her supervisory experience, other students appreciated how their supervisors were helpful in terms of showing empathy and concern for them. For instance, Fouzia said:

I was just going through a mental breakdown... my DoS [Director of Studies] really helped me about that. So, we were supposed to have a meeting, for instance, then we didn't talk about the work at all, but we talked about what's stressing me out, why I am feeling low, why I'm not doing much work, why I'm not motivated, and he proposed even some solutions... which is something I really appreciate.

(Fouzia, 26/11/2020)

Meriam described her supervisor's empathy in this way:

in terms of my well-being, whenever I told her [supervisor] that I'm not feeling okay, she seems to be concerned. She shows that, she shows she's concerned. I don't hesitate to share my concerns with her.

(Meriam, 22/12/2020)

Students described their supervisors' empathy in various instances such as active listening and showing interest and appraisal of students' concerns and providing a

supportive environment for their students and encouraging them to express themselves and their emotions so that they might reflect on and better understand them. Dalia, on the other hand, reported a negative influence, namely, the lack of responsiveness and its (perceived) impact on her progress. Other students such as Aysha and Camilia emphasised the importance of this aspect from their perspective(s) when saying “I think I would not do it without my supervisors who back me up whenever I’m stuck” and “now if I don’t do a meeting with my supervisor, I would feel very stressed”. This suggests that students confided in their supervisors regarding many aspects during their PhD journey. Meriam emphasised the role of the supervisor and said in this regard:

I think that the relationship between the supervisor and the supervisee is really important, it can have a major impact because there are some people who even abandoned their PhD because of their supervisors.

(Meriam, 22/12/2020)

In this study, being approachable encouraged students to feel safe to share their concerns, which was considered important, as students believe if their supervisors are aware of their feelings, they will provide appropriate supervision. Hiba said:

I guess if they [supervisors] are aware of what their supervisees are feeling and what they are going through, they would supervise them much easier. So, if you give me a deadline of 10 days knowing that a whole week has been horrible for me, and then there are three days to do my work, you are not going to expect perfect work.

This statement indicates that if the supervisor is aware of the personal and academic challenges that the student is facing, the supervisor can better support the student's progress and success. For instance, if the student is dealing with personal issues or health problems, the supervisor may need to adjust the student's workload or deadline expectations to accommodate the situation. This suggests that a supportive and empathic supervisor can help the PhD student navigate the difficulties of their programme and achieve their academic goals. Similarly, Israa pointed to the aspect of empathy when describing an emotionally intelligent supervisor.

[people] don't think, maybe, that an emotionally intelligent supervisor can add anything to the equation, but for me, I think it's really important that my supervisor understands my emotions and understand my mental state, so she doesn't put so much pressure on me when I am not able to manage that stress or just makes me even feel worse than I'm already.

(Israa, 30/11/2020)

This adds to what other students namely Fouzia, Camilia, Aysha, Hiba, and Meriam mentioned earlier on with regard to the importance of empathy, support, and encouragement. The students' ability to express themselves was reinforced by supervisors' empathic listening, which was deemed to have empowering qualities, allowing students to speak about their issues, which may help them explain their thoughts as well as provide a required emotional release.

Unlike these students who seem to shift from the initial attitude regarding the emotional aspect in doctoral supervision (see p112-113 for instance), only one student (Dalia) maintained the attitude of disregarding emotion in the context of supervision. She stated:

for me it [supervision] is not about emotional intelligence, it's about academically competent and professional'

(Dalia, 17/11/2020)

In this study, students perceived their supervisors' empathy through their approachability, availability, and encouraging their students to reach out to them whenever they had concerns. Gunasekera et al. (2021) argue that to create an emotionally intelligent environment, students should feel safe rather than threatened, which is in line with this study's finding where students described how they feel safe to express themselves to their supervisors.

Supervisors' approachability allowed their students to feel their empathy and considerateness towards them, especially when applying active listening strategies.

When discussing PhD students' challenges, participants tended to focus on the psychological hurdles that accompany their journey. One student said:

I think the PhD journey... if we see it from a mental health angle, it's a journey of isolation, insecurities and self-doubt.

(Dalia, 17/11/2020)

The PhD is a journey of students' transition into independent and autonomous researchers, which is characterised by feelings of anxiety, and self-doubt (McPherson et al. 2017). However, autonomy can be experienced as a form of loneliness and isolation at times. Loneliness was mentioned as a crucial challenge by the majority of participants on various occasions throughout the interviews, with different references drawn upon such as: "am alone", "isolation", "I find myself in my own bubble unable to see what's outside", "lonely". This study findings are evident in previous research that found loneliness to be a problem for PhD students at various stages of their studies, particularly in the early months (Janta et al., 2014; Sawir et al., 2008; Cantor, 2020). Another student described her emotional state during her second year and how this impacted her productivity:

In the second year, it's where the problems started, I started doubting my research. I started doubting why am I doing it? I started asking myself questions like 'what's the point...?' and all that. And this really affected my mental health...I think that mental health is crucial because it's like a cycle. So, first you start questioning your research, you start being, kind of, demotivated and this will affect your productivity. And then, when your productivity is affected, you start feeling even worse and more anxious and the anxiety kicks in just like a cycle... and it's just horrible.

(Israa, 30/11/2020)

Similarly, Meriam stated:

I used to feel sometimes unable of doing this PhD to the point where you keep on doubting 'is PhD really for me ? Am I really able to carry on doing PhD?'

(Meriam, 22/12/2020)

Camilia said:

The first year was a nightmare. I even wanted to quit. I said 'this is not the right place for me. This place is not the right thing for me I'm not ready for it'.

(Camilia, 01/12/2020)

The examples reveal that the PhD is an emotionally charged journey. Students see that supervisors' empathy is essential when it comes to the PhD journey challenges. Meriam described her supervisor's display of empathy and care as follows:

when you feel that there is someone there to care about you and understands to give you time not to work, that person considers me as a human and takes my case into consideration. This makes you feel less stressed. Once you know your supervisor gives you time to relax, [supervisor] makes you feel at ease.

(Meriam, 22/12/2020)

Because of the supervisors' care and understanding, the students' tension and anxieties were reduced, while their comfort and optimism were increased. This is in line with Lee's (2008) claim relating to doctoral research students, where he stresses the importance of maintaining a relationship where the student feels enthused, inspired, and cared for. This is illustrated when Meriam stated:

I told her that I'm not feeling okay, she seems to be concerned she shows that she's concerned. I don't hesitate to share with her my concerns.

(Meriam, 22/12/2020)

Another instance of display of empathy was described by Fouzia:

I think they went through the same process that I went through. So, they were questioning their ability to do the PhD, they have been also feeling that low self-esteem thing that I've been talking about. So, I can conclude from our discussions that they've been in my shoe once.

(Fouzia, 26/11/2020)

Similarly, Aysha said:

... even when they were talking about their experience being PhD students, and how they struggled as well, and that this is a normal thing, it feels like two researchers who are discussing different topics, not like supervisor-supervisee.

(Aysha, 22/11/2020)

It appears in Aysha and Fouzia's statements that their supervisors displayed aspects of empathy towards their supervisees. By sharing and acknowledging their own struggles as PhD students and normalising their supervisees' experience, the supervisors demonstrated an understanding and appreciation of the difficulties that their supervisee were facing. This was mentioned also by Israa and Boutheyna, which helped in creating a supportive and collaborative relationship between the supervisor and their student. Additionally, the fact that the interaction "feels like two researchers who are discussing different topics" rather than a hierarchical supervisor-supervisee relationship indicates that the supervisor was trying to create a more equal and respectful dynamic, which can further foster a sense of empathy and mutual understanding. Empathy is achieved by sensing others' feelings and needs and taking an active interest in their concerns (Ackley, 2016). Students appreciate their supervisors' displays of empathy be it through active listening, showing interest in students' ideas and concerns, or signalling their approachability and accessibility.

Meriam describes how her supervisor's empathy reduced her sense of isolation. She expressed this as follows:

I could relate it [supervisor's empathy] to having someone to talk to so that you feel you're not alone in your PhD journey.

(Meriam, 22/12/2020)

Students, notably, recognise the importance of empathy in supervision, which is consistent with Bui's (2014) research on Student–Supervisor standards in the doctoral supervision process, where empathy is emphasised heavily by students and supervisors as well. The importance of supervisors' emotional support corroborates findings from a previous study (Jairam and Kahl Jr, 2012). Students considered supervisors' support invaluable, where supervisors were encouraged to develop

rapport with their students to maintain successful communication. Supervisors' responsiveness was also valued, which made students feel they are not alone in their PhD journey, and that there is someone in the field who is interested in them as researchers and as human beings. Studies indicate that good supervision aligns with keeping regular contact and being responsive to students (Roets and Botma, 2012; Abiddin, 2007).

As mentioned earlier, students experienced feelings of isolation, anxiety and self-doubt. These results are in line with Christie et al.'s (2008) study, which showed that university students experience feelings of displacement, dislocation, isolation, and exclusion. Similarly, Barnett (2007) maintains that feelings of discomfiture is part of the higher education journey, and that this feeling develops as the student moves from one level to another. As such, one of the pedagogical tasks is to support and help the student to be able to deal with that. Being able to express those feelings to their supervisors, students realised how their supervisors, after listening to them, expressed empathy and validated those emotions and normalised them. This is something akin to emotional management (Mayer et al, 2001). This is in line with Doloriert et al's (2012) study that shed light on the power dynamics and emotional aspects of doctoral supervision, that emphasised the need for developing these areas for both students and supervisors.

The next section will discuss how the aspect of empathy is integrated in emotion management.

4.1.2.2 Emotional management (normalising struggles through sharing experiences)

Students reported that when they were stressed or experiencing disturbing feelings (self-doubt, stress, anxiety... etc), they needed to talk to their supervisors as a means of seeking reassurance. For example, Camilia who used to feel stressed to meet her supervisors said:

I was really stressed and uncertain and lost, but when reassuring me that 'you are doing enough work... nothing to worry about concerning your progress', now if I don't do a meeting with my DoS [Director of Studies], I

would feel very stressed.

(Camilia, 01/12/2020)

Similar to Camilia, four students (Fouzia, Meriam, Aysha, and Boutheyna) stated that their supervisors were approachable and empathetic such that they did not hesitate to discuss with them their personal problems that have an impact on their development. According to these students, then, the supervisor is more than just a source of information and expertise; they are also a source of relief and comfort, to whom they turn (for comfort and support) when their stress is related to their research.

A significant point to mention is that this study and, hence, the data collection for the study took place during the recent COVID pandemic. Unsurprisingly, the dataset consists of examples of how the pandemic affected students and their research, as well as how certain supervisors showed their capacity to understand and support their students during the demanding periods of pursuing a PhD, as well as navigating the challenges posed by the pandemic. Boutheyna was struggling during the pandemic especially with regard to whether to stay in the UK or to go back home and was concerned how this would impact on her research. She described how her supervisor helped her:

He [supervisor] was very helpful and kind. And concerning my DoS [Director of Studies] ... they were both helpful and very understanding, and they were all the time coming up with solutions ... they were very much supportive, and they were giving me suggestions whether to go home or stay. They were very helpful, and they were, like ... never disappointing me in this regard, like they took so much care of my wellbeing.

(Fouzia, 26/11/2020)

Similarly, Meriam stated:

The pandemic period also made me realise that my supervisors are really nice in terms of asking about how I'm doing, in terms of caring about my wellbeing, and knowing that I'm abroad for more than a year away from family, this made them empathise with me more and it was something that turned out to be really good in terms of realising how my supervisors

are nice.

(Meriam, 22/12/2020)

These two statements clearly highlight the importance of supervisors having (high levels of) EI. Fouzia described her supervisor as ‘helpful and kind’ and appreciated them for being ‘understanding’ and ‘supportive’. These qualities suggest that the supervisor is emotionally intelligent and is able to empathise with their student’s needs. The supervisor was also described as being proactive in finding solutions and offering suggestions, which indicates a strong communication skill and willingness to support their student. Similarly, Meriam’s supervisor is praised for their concern and care for the student’s wellbeing, particularly during a challenging time like the pandemic, which highlights her supervisor’s EI, since they are able to recognise the impact of external factors on their students’ emotional state and respond with empathy and support. This also reflects a humanising approach to the supervisory relationship, which has been shown to be a significant factor influencing student success and satisfaction with supervision (Löfström and Pyhältö, 2020; Khene, 2014).

One of the supervisors’ strategies in managing students’ emotions, mentioned by five students, is that of acknowledging and normalising their students’ feelings. According to the interviewees, this was attempted through supervisors sharing their own experiences (as mentioned by Aysha and Fouzia in Section 4.1.2.1) and how they felt the same disturbing feelings their students did, such as anxiety, low confidence, and doubting their ability to complete the PhD...etc. In this regard, Meriam and Israa stated:

I could actually notice in a meeting they can talk to me about their academic life; how they were feeling afraid about presenting in conferences... I was really astonished to know how it is common struggles just like us ... they had struggled to present. They used to feel afraid ... and up to now, their papers were rejected. This makes you feel really comfortable ... makes you realise that this is how it works ... if you get rejected or approved, this is part of the journey of PhD student.

(Meriam, 22/12/2020)

So, she’s been a PhD student she did her doctorate as well so she understands the struggle... she can support me in ways maybe my family can’t support me because my family are not academic... It was very

helpful because when she shared these things (experiences of struggle) with me I realised that I'm not alone. So, I realise that it's not just me... these struggles are common ... all people go through them especially PhD students so also it gave me hope.

(Israa, 30/11/2020)

Meriam developed a sense of belonging and reduced her isolation after realising that her supervisors felt the same way as her when pursuing their PhD. By sharing her own experiences with her student, the supervisor helped Israa feel less alone and more connected to others who have faced similar challenges. Israa's comment that 'these struggles are common... all people go through them especially PhD students' indicates a sense of belonging within the academic community. Supervisors diverted their students' feelings (emotional regulation) from loneliness and stress to reassurance and confidence by providing emotional support through sharing common experiences that included the following steps: emotional understanding, empathy, legitimising and validating emotions and struggles, and encouragement (Mayer et al., 2016; Goleman, 1996; Goleman, 2007). Interestingly, students who claimed that they felt a sense of belonging did so after recognising that their supervisors who had completed their PhDs had once been in the same situation. The (lack of a) sense of belonging is one of the significant reasons for students' retention in their education (Pedler et al., 2022; L. Thomas, 2012). Thus, it is important that doctoral students feel accepted in the research community, otherwise, they will be more likely to experience alienation and vulnerability (Vekkila et al., 2012).

Recognising that their supervisors who experienced self-doubt and confidence issues had successfully been granted their PhD nonetheless, and are now successful academics, students were better positioned to accept that such feelings were part of the PhD journey. This was especially the case after supervisors validated their emotions by, for example, expressing their own stories of struggles and success. This served to give students a ray of hope and enhanced their confidence in their skills. Israa made the following remark on that by saying 'it gave me hope; if she went through them and she eventually got to have her PhD and succeed so can I. So, it was really helpful'.

The students' data signals supervisors' EI skills, mainly emotional understanding, empathy and emotional regulation (see (Goleman, 1996; Mayer et al, 2001; Mayer et

al., 2016)). These skills were captured in supervisors' behaviours represented in active listening to students' struggles, normalising them through sharing their similar experiences of those feelings during their PhD journeys and displays of encouragement and reassurance. This helped students shift their mind-sets, through making them realise that those struggles are normal and are part of the PhD, and that even successful academics went through similar shortcomings, thereby reinforcing their sense of belonging and confidence in their competences and decreasing any sense of loneliness. Students felt reassured and looked at their experiences from a positive angle. Ashforth and Kreiner (2002) described the aspect of reframing as probably the most difficult technique to master because it requires an active reworking of "reality", in which meaning is recreated in a more emotional-friendly picture. Ashforth and Kreiner opine that "a belief shared is a belief affirmed, groups can often sustain beliefs that individuals cannot" (Ashforth and Kreiner, 2002: 227). Posselt (2018) also highlights the importance of creating a culture of support and normalising struggle in doctoral programmes, in order to reduce stigma and encourage students to seek help when they need it. This can be projected onto supervisors' influence on their students' attitudes towards themselves and the difficulties they face during their PhD journeys. In terms of influence, students explained how their supervisors used empathy through embracing their concerns, and emotional regulation through reframing these concerns to shift the student's attention from struggles towards achievements.

Supervisors' use of these two skills made their students feel comfortable, helped to change their attitude toward themselves, and shifted their passive behaviours toward more active behaviours, such as hard work, such that they could progress in their study. Although empathy and emotional management are considered two separate skills in several EI models (Mayer et al, 2001; Goleman, 1996; Payton et al., 2000; Bar-On, 2006), empathy and emotional management were found in this study to be closely linked; a person cannot handle emotions if they lack empathy and emotional recognition (Eisenberg, 2010). As a result, empathy and emotional management are found to be discussed in Section 4.1.2.1 and 4.1.2.2 simultaneously in some instances. Indeed, emotional regulation is regarded as part of empathy, according to Decety (2010). The relationship between empathy and emotion regulation suggests that empathy, the ability to understand and share the feelings of others, develops before the ability to regulate emotions. The functioning of empathy (in terms of its development) appears to provide a foundation for the more efficient regulation of

emotions. In other words, the ability to understand and empathise with others may be a prerequisite for developing the skills necessary to regulate emotions effectively. As a result, deficiencies in either or both are likely to cause emotion ‘dysregulation’ (Schipper and Petermann, 2013). While expressed differently, these two elements are the underlying foundations of EI (Goleman, 1996; Mayer et al., 1997; Payton et al., 2001, Petrides, 2001). Supervisors’ EI was observed by students in their validation of their students’ concerns and emotions and maintaining a proactive behaviour such as reassurance and praising their work and efforts. Normalising students’ struggles was reported by students and is appreciated as this helped students feel less anxious and confident, and sense connectedness and belonging to the academic community.

The next section will discuss the aspect of rapport building in the supervisory relationship.

4.1.2.3 Building trust and rapport

Building trust can be linked to the previously discussed theme of empathy and approachability (see Section 4.1.2.1 above) through providing students with a safe atmosphere in which to express their emotions. These elements are fundamental building blocks for cultivating a relationship based on trust (Wisker and Robinson, 2012). Empathy, often referred to as social awareness, refers to enhancing the capacity to establish and sustain rapport by accurately perceiving and effectively engaging with the emotions, thoughts, and feelings of others (Katz and Sosa, 2015). The interpersonal facet of EI focuses on effectively managing relationships and fostering trust. It emphasises the importance of building trust through skilful relationship management. In the ability model of EI (Mayer and Salovey, 1997), and within the emotional management cluster, relationship management was placed at the top of the hierarchical classification of EI branches (Dhani and Sharma, 2016). This placement highlights the importance of developing skills such as building rapport, fostering trust, and manoeuvring social interactions in order to establish and maintain positive relationships.

A variety of points were expressed in light of asking students to describe their relationship with their supervisors. 7 students answered that their relationships with

their supervisors have developed positively. In this regard, an interesting point was highlighted throughout the data: building trust is reinforced due to receiving empathy and support, understanding and appreciation. Simply put, students' trust in their supervisors is strengthened as they receive guidance and support. When talking about her supervisor, Israa stated:

She's been a PhD student; she did her doctorate as well. So, she understands my struggle. She can support me in ways maybe my family can't support me, because my family are not academics.

(Israa, 30/11/2020)

Israa associated trust in her supervisor with the fact that they had seemingly shared a similar experience in the past (a previous PhD student), and she was certain that the support would meet her needs. Boutheyna described her supervisor's support by stating:

I find so many obstacles and challenges and then he [supervisor] has this kind of ... he keeps appreciating the work motivating you. Whenever I finish my supervisory meeting, I feel like I'm so much motivated to work harder... to work more because someone is appreciating my work, someone is telling me your work is really fascinating so it gives me more energy to work.

(Boutheyna, 11/30/2020)

Interestingly, Boutheyna describes how her supervisor's display of trust in her competence, through appreciating her work, shifted her mindset towards focusing on working on her projects rather than on focusing on her obstacles. This serves to reflect, in turn, Israa's trust in her supervisor. This highlights the importance of trust and positive feedback in building a strong effective supervisor-supervisee relationship. McAllister (1995: 25) alludes to this aspect in his definition of trust: "the extent to which a person is confident in, and willing to act on the basis of, the words, actions, and decisions of another".

Hiba described the positive and supportive communication with her supervisor, and how this shifted her emotional state following meeting her supervisor.

So, those days where you don't feel okay, so those feelings set you down. On the other hand, whenever I finish a meeting with my supervisor, I feel such a boost of energy. I am so productive throughout the day ... I would just keep working ... because I'd have so much energy because they inspired me to work more. That discussion I had with them they remind me how much I actually like what I'm doing ... it's a topic that I choose so I should really love it. So, they inspire me ... they just remind me that I'm good at this topic that I chose, and I want to read more about it.

(Hiba, 23/02/2021)

Hiba described feeling a boost of energy and being productive after meeting with her supervisor, which suggests that they have a positive and motivating relationship. The supervisor's positive feedback and encouragement are found here as a means to establishing a connection and building rapport with the student. Additionally, the supervisor's reminder of the student's passion for her topic and her abilities can further strengthen the rapport and motivate the student to work harder.

Noticeably, Hiba and Boutheyna saw their supervisors trust their skills and, in turn, there is a reciprocity on the part of the students, in the sense that they seek approval from their supervisors given that they trust their feedback and assessments. Camilia mentioned in this respect:

even my supervisor sometimes encourages me. Sometimes, I feel like this topic is not good and I get bored, but when they tell me 'I like your project, I really enjoy reading your work' and so ... this is so helpful ... I ask her whether my work is on the right track just to reassure me especially when saying that I have progressed a lot.

(Camilia, 01/12/2020)

Camilia's willingness to seek feedback and guidance from the supervisor suggests that she trusts and values her supervisor's input, which can further strengthen their levels of rapport. Additionally, the supervisor's willingness to provide reassurance and feedback can help build a supportive relationship, which can foster trust and motivate Camilia to continue working on her project. Being high in EI, according to Caruso (1999) and Goleman (2001), involves being believable, trustworthy, and successful at

influencing others, all of which are evidenced in the students' previous narratives. Students also appreciated their supervisors' active listening and showing genuine concern for their well-being. Israa for instance said: that

In terms of my well-being, whenever I told her [supervisor] that I'm not feeling okay, she seems to be concerned she shows that she's concerned. I don't hesitate to share with her my concerns.

(Meriam, 22/12/2020)

Meriam seems to share with her supervisor various issues that arise from doing her PhD. This indicates that Meriam trusts her supervisor enough to share her concerns with her knowing she is the right person to assist her. This can help the supervisor understand her student more and supervise her in an effective way. This is supported by Buirski (2022) who focus on the personal dimension in the context of higher education. She maintains that the personal aspect of the supervisory dialogue is susceptible to emotional and ethical features that help to create a trusting relationship between the student and the supervisor. She goes on to recommend a supervisory relationship based on shared respect and recognition. For her, that personal relationship determines the level and depth of communication the student and their supervisor can reach during their meetings when discussing the research topic (Bengtsen, 2011). This is thought to be related to these findings and those mentioned in the previous theme of empathy and approachability (see Section 4.1.2.1), in which students indicated that they were more likely to discuss their concerns, ask questions and seek advice once they felt their supervisors were caring and encouraging them to contact them if they needed help.

The aspect of trust and a belief in each other's integrity, according to Lee (2012: 117), is vital for a successful student-supervisor relationship. According to Bengtsen (2011), to establish a relationship grounded in mutual recognition and trust, it is crucial for the supervisee to perceive the supervisor as a human, that is, more than the professional identity or costume that they wear as part of their professional role. This would allow for creativity and effective learning (*ibid*).

Students appreciated the aspect of mutual understanding and harmony in their supervisory relationship. Israa stated:

you get to know the person more and you get to get used to the way they like things get done ... you start understanding their way of working, their way of thinking, what they would like you to do, what they wouldn't like you to do, and all that. So, this helps, kind of, it helps both parties, I guess. So, she understands me now better than she did at the beginning, and I understand her more as well. So, I will work the way she wants me to work at the same time she will understand if there is something that just doesn't make sense to me.

(Israa, 30/11/2020)

As Israa became more familiar with her supervisor's preferred methods of working and thinking, she was able to better tailor her own approaches to align with her supervisor's expectations. Her supervisor, in turn, seemed to better understand her student's needs and perspectives. This idea that mutual understanding is facilitated by supervisors' EI is appreciated by other students. In particular, students felt that their supervisors could communicate more effectively with them and recognise when adjustments may be necessary. As a result, the supervisor-student relationship can become more harmonious and productive.

The students appeared to place great importance on their relationship with their supervisors. Anne Lee (2008) suggests that successful supervision involves the development of strong interpersonal and social connections between doctoral students and their supervisors, with EI being a key factor in this process (Wisker, 2012), which, in turn, can facilitate communicating feedback, interests and concerns. Wisker and Robinson (2013) emphasise that effective supervisors need to adopt new values and develop inner qualities that foster strong supervisory relationships and positive knowledge outcomes. They advocate for recognising attitudes like equality, ease, attention, encouragement, and empathy, which are crucial for building mutual respect. Once these attitudes are consistently present, they give rise to trust, reciprocity, co-creation and collegiality, in which they, according to Wisker and Robinson, have the potential to enhance doctoral students' experiences in creating knowledge and can potentially impact the outcomes of their doctoral studies (*ibid*).

The next section will discuss displays of supervisors' EI when communicating feedback.

4.1.2.4 Motivating students through feedback

Mayer and Salovey (2007) state that emotionally intelligent people are self-motivated, and their attitude motivates others. This enables individuals to “generate enthusiasm for a project, and energise, direct, and motivate a group, as well as” themselves (Mayer and Salovey, 2007: 17). Motivation was mentioned throughout the interviews with students, who reported that it is an important aspect of completing their PhD. At first, students expressed that they had a strong desire to conduct their studies, but this desire then fluctuated throughout their journey. Their supervisors were a source of motivation and inspiration for them at that time. The focus of this section is on capturing when supervisors inspired and motivated their students.

Students reported that their supervisors displayed positive attitudes towards their students’ ideas: ‘he keeps appreciating the work, motivating you’. This, in turn, was seen as boosting their motivation: ‘it gives me more energy to work’. By meeting with their supervisors and discussing their subjects with them, according to Boutheyna and Hiba, they wanted to work more/harder, especially when their supervisors expressed interest in their topics. This is in line with James and Baldwin (1999) that when a supervisor interacts with their students’ ideas and displays interest in the subject, students’ motivation grows.

Motivation was mainly related to supervisors’ feedback, and how receiving positive comments in particular motivates them to work (harder). Meriam stated:

she [supervisor] really liked my work. She kept giving me really positive feedback ‘you’re doing great’... whatever feedback I get from her is just to get me motivated and push me forward.

(Meriam, 22/12/2020)

Similarly, Boutheyna said:

He [supervisor] gives me so much positive comments and feedback. Even if he gives you something bad about your work, he keeps saying ‘but your work is so fascinating’... I’m so motivated to work harder.

(Boutheyna, 11/30/2020)

Supervisors' EI is reflected in these two statements, in which both supervisors provide positive comments and feedback to motivate and boost the confidence of their students. This demonstrates their ability to identify and respond to their students' emotional needs, as well as to foster a supportive and encouraging environment. Supervisors help their students feel valued and motivated by focusing on the positive aspects of their work and providing constructive feedback, which can lead to improved performance and outcomes. Similar to Boutheyna and Meriam, various students expressed their gratitude for receiving positive feedback and experiencing their supervisors' optimism towards their work. This is consistent with Mustafa et al's (2014) notion that receiving encouraging feedback indicates a healthy supervisor-supervisee relationship, which leads in turn to better academic achievement. Meriam, on the other hand, said that she valued any feedback she obtained from her supervisor, including 'harsh comments', as she put it, as they served to motivate her to work even harder.

my motivation comes from challenging myself, receiving these harsh comments ... so this is how I get motivated and it also from receiving positive feedback ... she has to do that to me not because she sees me, I'm bad or I'm not doing good, as I told you ... just to keep me go forward.

(Meriam, 22/12/2020)

This suggests that Meriam is aware of her own motivation and the role that feedback plays in it, which could be a sign of her own levels of EI. It shows her ability to generate enthusiasm for achieving her goal, that is, the ability to use emotions to facilitate thinking (Mayer et al, 2001; Mayer and Salovey, 2007). Indeed, she signalled that when her supervisor pointed out both her weaknesses and strengths, this made her feel the need to work. She further explained:

they keep me moving forward and they push me to bring the best version of me as a PhD researcher.

(Meriam, 22/12/2020)

One student, however, described how one of her supervisors being harsh with her led her to experience anxiety and depression which, in turn, impacted on her progress.

when I used to be anxious, she tends to throw harsh comments I feel even more embarrassed.

(Camilia, 01/12/2020)

Camilia reported that she learned to voice her concerns to her supervisor and raise the issues in ways that suited her own communication style, and this led the supervisor to shift her way of communicating with her.

it was the turning point in my PhD with the help of the university counsellors when I could discuss my issues with my supervisor. It was really helpful for me... Now, whenever she can see that I am a bit anxious, she tries to ease up the atmosphere.

(Camilia, 01/12/2020)

Interestingly, Camilia's statements suggest that her supervisor may have initially lacked EI when dealing with her student's anxiety. The use of harsh comments when the student was anxious could indicate a lack of empathy and understanding of the student's emotional state. However, the fact that the student sought help from university counsellors and was able to discuss her issues with her supervisor suggests that the supervisor may have made efforts to improve her EI and communication skills. The supervisor's ability to recognise and respond to her students' anxiety by easing up the atmosphere also suggests an increased level of EI (than was perceived by the student initially).

When asked to reflect on their feelings at different points of their PhD journey, students including Camilia mentioned that they started their PhD journey with high levels of enthusiasm and motivation. Hiba mentioned in the questionnaire.

I was very excited when I first got started, I had so much confidence in the idea I had. As time passed in my journey and certain concepts of my work started changing, I lost some confidence in myself. Though I am more comfortable with where I am now, there was a time where I was very frustrated.

(Hiba questionnaire, 13/01/2021)

Similar to Hiba, Fouzia and Israa also mentioned that they started their PhD journey with high levels of enthusiasm and motivation but, as time passed, their enthusiasm and motivation waned. Effective supervisors can motivate, inspire and provide high quality feedback to their students, and thus play a critical role in helping to encourage and retain student motivation, by confirming and supporting this drive and assisting in its maintenance if it begins to fade along the way (James and Baldwin, 1999; Doloriert et al., 2012). Fouzia made such a comparison between her internal motivation, which comes from her own drive to work, and her external motivation, in which she stated she was driven by her desire to please and impress her supervisor after receiving their encouragement, that in turn, created an obligation to adhere to her supervisor's expectations. She further explained:

I would probably put the external (motivation) ahead of the internal, I mean I am motivated to finish that project, but I keep losing that motivation. I think that's due to the time constraints ... When it comes to external motivation, I mean I cannot stress it enough it's like huge loads and loads of external motivation.

(Fouzia, 26/11/2020)

In a similar vein, students also valued one of their supervisors' strategies when providing feedback. Meriam commented:

she kept giving me really positive feedback: 'you're doing great' ... if she is writing you feedback, she tells you 'Wow! This is interesting. Well, reconsider this part... Well, this is interesting... if I were you, I would do this'.

(Meriam, 22/12/2020)

Similarly, Aysha said:

I appreciate how they make that balance between what good and bad I have done.

(Aysha, 22/11/2020)

In the statements of Aysha, Meriam and Boutheyna, they noticed and valued the importance of having a balanced feedback. This is evident in a study on the effect of feedback on the supervisor-supervisee relationship, which found that providing

constructive feedback in a balanced manner helps students achieve their intended outcomes (Mustafa et al., 2014).

The focus on the aspect of feedback was emphasised based on the responses of the participants, who primarily discussed motivation in conjunction with feedback provision. Furthermore, the primary reason for supervision and meeting is to receive feedback. Some students claimed that positive (encouraging) feedback motivates them to work harder, while others, such as Meriam, Boutheyna, and Aysha, claimed that both types of feedback motivated them in various ways to work even harder. This indicates the power of emotion in the supervisory process, in how students are influenced by supervisors' feedback (Doloriert et al., 2012). It supports Lauvas and Buirski's (2022) claim, in turn, relating to the importance of the emotional dimension in supervision settings.

Some students, such as Boutheyna and Hiba, stated that deadlines drive them to work. Hiba said:

when I am motivated that's when I am most accomplished. I am motivated by deadlines ... I like it when he [supervisor] gives me deadlines like: 'I need you to send me 500 words by the end of this week', that works for me ... that's how I work, I work under pressure I know if I need to give him 500 words, I need actually to write 800.

(Boutheyna, 11/30/2020)

Supervisors' shared experiences are also seen a source of motivation alongside showing empathy (see Section 4.1.2.1). Students saw their supervisors as role models (as an example of a previous student who, in times past, had faced similar obstacles and earned their doctorates, nonetheless). Israa and Meriam, for example, commented:

it gave me hope if she went through them [similar struggles] and she eventually got to have her PhD and succeed, so can I. So, it was really helpful.

(Israa, 30/11/2020)

the way that my supervisor approach supervision made me think of taking her as a model to supervise my students.

(Meriam, 22/12/2020)

The fact that the supervisor's experience was helpful in inspiring and giving hope to Israa suggests that the supervisor is able to empathise with her and understand the challenges she faces. Meriam considered taking her supervisor as a model for her own approach to supervision, which indicates that the supervisor is able to communicate their expertise and knowledge effectively. This may be a sign of EI as it suggests that the supervisor is able to connect with her student and build a strong relationship with her. Supervisors helped motivate their students in a variety of ways associated with EI skills, including expressing interest in and appreciation for their ideas, positive affirmation, sharing personal experiences, acting as a role model and motivating and inspiring them.

This section represents how supervisors' motivation had an impact on the students' moods and productivity. McLaughlin (2003) maintains that both emotional and cognitive processes play a significant role in the research process. Emotions continue to affect all aspects of the research process, particularly when it is collaborative, so taking a student's position seriously in research terms appears to have the added (EI as well as academic) benefit of strengthening the research. According to this study findings, it is evident that recognising and harnessing the significance of emotions and EI is crucial for achieving improved outcomes. Collaborative meetings between students and supervisors aim to collectively work towards a shared goal of successfully completing a thesis (see Section 6.6). When students sensed their supervisors were passionate and enthusiastic towards their research topics, this helped them develop confidence as well as motivation to achieve desired outcomes.

After conducting an analysis of students' data, the following sections aims to delve into the viewpoints of supervisors in order to obtain a holistic understanding of the skills associated with EI in this context.

4.2 Supervisors' perceptions of EI in doctoral supervision

The aim of this study is to gain insights into supervisors' perspectives on the importance of EI in the supervisory relationship and the strategies they used to manage their own and their students' emotions. The analysis revealed several themes that highlight supervisors' awareness of the role of emotions in the research process and their efforts to foster a supportive and empathic supervisory environment. The following sections present these themes and their implications for effective supervision.

4.2.1 Supervisors' understanding of EI

Supervisors mentioned a range of EI characteristics when asked to express what they thought about EI. They used terms such as *awareness, detecting, knowing, recognising, problem solving, understand, interpret, adapt, control, deal, manage*, all of which can be found in many EI definitions. For example, Sophie defines EI as follows:

For me, emotional intelligence is about awareness, really. And it's not just self-awareness, it's others' awareness. It's about social knowing.

(Sophie, 25/02/2021)

Similar to Sophie, Lisa also referred to the aspect of awareness of oneself and others in the context of supervision:

I think emotional intelligence for me is detecting emotions, emotions in other people, detecting emotions in myself in response to emotions that are initiated by students, but also using it to ... I have to say I'm a very solution focused person. So, I want to get a job done and so I will use emotional intelligence to get the students to complete their PhD.

(Lisa 08/02/2021)

Lisa emphasised the need for knowing her emotions in response to her students' emotions in order to respond effectively. Lisa linked EI to the ability to recognise one's own and others' emotions. She pointed, in addition, to the aspect of using emotion to

problem solve, and made a link between emotion and cognition – two essential components of EI according to Mayer and Salovey (1997). Lisa stated she will use EI in a task-oriented way, such as when drawing upon EI skills to ensure her students complete their work. EI was often related to interpersonal relations and leadership, from the supervisors' perspective. This example highlights the angle of leadership and influence to have the job done via goal setting and work-organisation. Goleman's and Cherniss's (2001) EI model indicates that the relationship management skill includes the following aspects: leadership, teamwork and collaboration, developing others, and influence. One of the authors of the leadership model (Halpin and Winer 1957) suggested that leadership behaviour can be divided into two distinct meta-categories that are independent of each other. The first category encompasses consideration behaviours, which prioritise people by demonstrating care and appreciation for followers. The second category consists of initiation of structure behaviours, which concentrate on tasks by establishing goals and organising work (Halliwell et al., 2021). This was shown in Lisa's supervisory practices (as per the example above). Yang et al. (2022) assert that since the supervisor holds the greatest responsibility for training postgraduate students, and in light of Al-Sawai's (2013) definition of leadership which is characterised by the actions and behaviours of an individual who steers a group towards achieving a shared goal, the actions and processes involved in supervising postgraduate students can be considered a distinct form of leadership.

Similar to Sophie and Lisa, understanding and interpreting emotions were evident in all five interviews, with supervisors considering them to be useful abilities when supervising their students. Andrew explained by saying:

They [students] are worried whether they're going to succeed, and I think if supervisors don't have the emotional intelligence to spot that, to grasp it, to see it in their students to interpret that behaviour and what they are saying and realise what's underlying it, then you are going to miss opportunities to deal with their problems to offer the necessary reassurance and support and advice.

(Andrew 15/12/2020)

When discussing EI in the context of supervision, Andrew highlighted the importance of (signalling) empathy when attempting to understand students' concerns, as a means of providing the necessary support.

Supervisors also related EI to the aspect of managing emotions in oneself. When describing EI, Adam and Andrew said:

I think it is about controlling emotions. I think the way I do control my emotions will affect the way others feel.

(Adam 26/02/2021)

being in tune with your own emotions, that is to say sort of understanding why you're feeling the way you are and also having some capacity to deal with that and manage it.

(Andrew 15/12/2020)

Supervisors' understanding of EI was mostly centred on the emotional awareness element in oneself and in others. All of the supervisors highlighted self-awareness, which is the initial element in most EI models, including Mayer-Salovey-Caruso (1997), Goleman (2001), and Bar-On (1997) (see Section 2.2.3), while little has been addressed about managing emotions.

The next sections will discuss how EI components have been identified in supervisors' practices.

4.2.2 EI significance in supervision

Based on their understanding of EI, supervisors were able to successfully relate EI to the aspect of perceiving their emotions and those of their students. Supervisors were asked if they regarded EI-related skills to be effective in the context of supervision. One supervisor stated that EI plays a pivotal role in defining the supervisory relationship in PhD supervision. "I think it's [EI] what defines a supervisory relationship", said Lisa.

if supervision is defined by personal relationship, by a relationship between people ... then, having a high level of emotional intelligence

means they can communicate better. I think that's the bottom line ... they can communicate all sorts of things better including subject specific academic content... I think emotional intelligence enables you to communicate better and depending on what you want out of that supervision.

(Lisa 08/02/2021)

Similarly, Sophie answered the question of the role of EI in doctoral supervision as follows:

Emotional intelligence is an important aspect of doctoral supervision, especially the regulation of the supervisor's own emotions. It is rare, in my view, that the supervisor's emotional response is a relevant aspect of doctoral supervision. However, a supervisor needs to be emotionally intelligent in order to empathise with and understand their supervisees' emotions and feelings. Specifically, a supervisor should learn to understand that a supervisee's emotions may reflect their needs for an identity shift in supervision (i.e., from the supervisor as a mentor to the role of coach, critical friend, or pastoral support).

(Sophie's questionnaire)

Lisa stated that EI allows supervisors to communicate better with their students, not only regarding subject-specific academic content, but also in other areas that are important in the supervisory relationship. She further added that EI allows supervisors to tailor their communication styles to the needs of the students, resulting in a more effective and productive supervisory relationship. Sophie also regarded EI as an important aspect of effective doctoral supervision, and she suggested that supervisees' emotions may reflect their needs for a shift in their supervisor's identity, and that the latter should be able to recognise and accommodate these needs.

Similar to Lisa's and Sophie's viewpoint, Andrew and Adam related EI to having effective communication with students since effective feedback is positively associated with effective communication. According to the four supervisors, EI can help with effective supervision in a variety of ways. Sophie and Lisa, for instance, considered that emotion and EI are part of their supervision.

developing that awareness, that regulation, with understanding of the people and how they react is such an important skill for the relationship between supervisor and supervisee... So, I think emotional intelligence, and how I use it, is not to shy away from emotions. But it's perhaps to ...to bring them to the surface, and to discuss them outright. Because when emotions are hidden, they often linger a lot longer. Whereas when they are talked about, they kind of can be resolved nice and quickly.

(Sophie, 25/02/2021)

I've not had an instance yet where a student has indicated that they are not happy with my supervision ... but I think emotional intelligence is what defines my supervision. At the end of the day the student can go out and read every book of the world and know more than me. So, it's not necessarily my knowledge... my understanding of the supervision is that it has to be positive because you can only learn in a positive environment so if I always express my emotions unfiltered that might not always lead to a positive environment.

(Lisa 08/02/2021)

Sophie regarded EI as a critical skill for the supervisory relationship, and it involves developing awareness and regulation of one's own emotions and understanding of how others react. She mentioned that EI is not about avoiding emotions but rather about acknowledging them and discussing them openly. She emphasised the importance of bringing emotions to the surface, believing that, if emotions are hidden, they tend to linger and cause problems in the supervisory relationship. When emotions are talked about, they can be resolved quickly, leading to a more productive and positive supervisory relationship. This suggests that Sophie values emotional awareness, regulation, and effective communication, all of which are aspects of EI according to Goleman et al. (2013). Lisa declared that EI is what defines her supervision when it comes to creating the learning environment. Moreover, she highlighted that managing her emotions is vital to be able to create that atmosphere.

Andrew answered the question with regards to the role EI can play in doctoral supervision as follows:

I think the primary role of emotional intelligence in the supervision process lies in the ability to empathise with the student and to understand the experience from their point of view. That, in part, is a product of remembering what the process of being a PhD student was like and being aware of all the attendant anxieties, stresses, loneliness that can be involved.

Much of what does and can go wrong with a thesis is not down to the intellectual ability of a student so much as the emotional and psychological stresses which are involved.

(Andrew's questionnaire)

Andrew also related that empathy as part of EI is essential and highlighted that this can be harnessed via remembering what it was like to be a PhD student and being aware of the anxieties, stresses, and loneliness that can come with the process. He further suggested that many problems that can arise in the thesis process are not necessarily related to a lack of intellectual ability but are instead a result of emotional and psychological stresses. This is in accordance with a study conducted by Je and Ct (2019), it was revealed that 36% of graduate students experience depression and anxiety, leading to adverse effects on their academic progress. The study emphasises the importance of exploring "what" it takes for students to reach the endpoint of their PhD journey, thereby urging a deeper understanding of their experiences. This highlights the need to shift focus from completion rates to understanding the experiences and challenges of students and the factors that contribute to their successful graduation. The abovementioned excerpt indicates that Andrew recognises the impact that EI can have on the success of the student's thesis.

Mike, however, has a rather different view:

I think it's obviously the advantage not to be a complete idiot emotionally if you want to be a supervisor. But that said, I'm a complete idiot emotionally, and I can supervise. So, it's obviously not essential...I'm not prepared to look at it [EI]. But I'll give you an example of what I mean, I'm not the kind of person who sits there listening to you and says 'Oh, really! that's interesting' ... 'Oh, good'. It's not my job. I can be supportive in a different way at a different time. But I don't listen to that

stuff. That sounds very hard, doesn't it? I'm not trained to do that. And I'm not qualified to do that. And I don't feel competent to do that. I can support you in this way: I can help people find help, but I can't provide any of the help they need themselves.

(Mike 23/02/2021)

Mike's response indicates that he first acknowledged that having EI is advantageous for being a supervisor, but then he stated that it is not essential. He also admitted that he is not emotionally intelligent but still can supervise implying that it is not a requirement for effective supervision. Mike gave an example of his own approach to supervision, indicating that he doesn't engage in active listening and validation of his students' emotions. However, he still can provide support in other ways, such as helping students find the help they need. This suggests that Mike may prioritise practical problem solving over EI in his supervisory style, and that he does not place a high value on the EI in his supervisory approach. It is pertinent to note, however, that this approach may not work for all students, as some may require more emotional support and guidance from their supervisors as shown in the above-mentioned examples by other supervisors.

Sophie and Lisa suggest that it is important to teach EI to supervisors as well as students. Sophie for instance said:

I certainly think emotional intelligence is a transferable skill. I think it is an incredibly important skill, and one that we need to scaffold and develop in students ... I think it kind of needs to be part of the training programme. I think it needs to be more explicit, you know, I like the idea of being very clear about how it fits into doctoral supervision, but also how it fits into being a developing researcher. This aspect of each the supervisor's and supervisee's emotional intelligence, in my opinion, can alter the supervisory relationship to no end: for example, (1) a supervisor without sufficient emotional intelligence can lead to an isolated doctoral student; (2) a supervisee without sufficient emotional intelligence can lead to burn-out and emotional/academic difficulties.

(Sophie's Questionnaire)

Sophie's statement implies that both the supervisor and the supervisee need to have adequate EI to maintain a healthy supervisory relationship. This is in line with Bui's (2014) and Doloriert et al's (2012) studies that indicate that EI is essential for both students and supervisors. Sophie further explained that without sufficient EI, the supervisor may fail to provide the doctoral student with the necessary support and guidance, leading to feelings of isolation and possibly affecting academic performance. A supervisee who lacks EI, on the other hand, may struggle to manage the programme's stresses, leading to burnout and academic or emotional difficulties. Sophie's view is supported by many studies that show that EI contributes to students' cognitive and affective engagement in HE (Maguire et al., 2017; C. L. Thomas and Allen, 2021; Zhoc et al., 2020).

Interestingly, supervisors addressed the importance of students' EI in doctoral supervision and not only that of the supervisors. Andrew emphasised that it is important that students have high EI to be able to deal with their concerns and struggles and to be able to share them with their supervisors. He explained that

if a student is sufficiently self-aware to understand their emotions and particularly, sort of their anxieties, frustrations etcetera, that are related to their studies, that should give them some perspective on their [struggles]... then should those struggles, which ought hopefully in turn to help them to manage their emotions.

(Andrew 15/12/2020)

Andrew mentioned the concept of emotional maturity when describing emotionally intelligent students:

if they are emotionally mature in themselves, they might be able to speak to their supervisors and say: "I've got a problem. I'm worried about this". And then, therefore, initiates the conversation which then can be helpful.

(Andrew 15/12/2020)

According to Andrew, emotionally intelligent students are more proactive, in the sense that they engage with their supervisors effectively. Andrew's statements highlight the role of EI and self-awareness in doctoral supervision, suggesting that students who are emotionally aware and emotionally mature are better equipped to manage their emotions and communicate effectively with their supervisors about any emotional

struggles they may be experiencing. This is in line with a study by Carson et al (2016), which found that EI was significantly correlated with proactive personality and personal control. People with high EI are flexible. They understand how their actions affect the outcomes of their lives and thus actively engage in setting goals and planning (Daniel Goleman, 1995). They are willing to take on difficult tasks, persevere in the face of hardship, and reward themselves for their achievements, which explains why EI and proactivity correlate with each other (Carson et al., 2016).

Andrew related EI to emotional maturity in the sense that emotionally mature people are not afraid to communicate their struggles. Instead of trying to seem ‘perfect’ all the time and acting passively towards their emotions, they engage in resolving their concerns through first expressing them appropriately. Students’ ability to express emotions, which is seen as a key component of EI (Mayer et al., 2016), was particularly emphasised by Andrew. This is valuable to him as well as other supervisors namely Sophie, Lisa and Adam since it allows them to engage in the appropriate support of their students. Emotional maturity requires being proactive and acting on emotion, which is the practical application of EI (Rai and Khanal, 2017), as it assists in decision-making and problem-solving. This shows being emotionally intelligent does not imply avoiding negative emotions or remaining static about them; rather, it entails the ability to confront these feelings, which may sometimes be as simple as discussing those feelings with someone who can assist.

Overall, supervisors’ acknowledgement of the importance of EI in doctoral supervision highlights the recognition of the critical role that emotions play in the supervisory relationship. A supervisor with high levels of EI is more likely to be approachable, empathetic and able to understand their students’ emotional and academic needs. Similarly, students who are emotionally intelligent are seen by supervisors as being more likely to be resilient in the face of academic and emotional challenges and, if/when they do arise, better able to communicate their needs effectively.

The next sections will detail the instances where EI related skills were prevalent in the supervisory relationship.

4.2.3 Building trust and rapport (relationship management)

Supervisors stressed that for the supervision to be effective, it is essential to have good rapport with their students. According to Goleman (1998), persons high in EI are good at managing relationships and developing networks, as well as finding common ground and building rapport. One of the aspects supervisors worked on to build a rapport with their international students was reducing the level of hierarchy expected. Sophie stated:

I often find that the hierarchy is expected to be a lot more significant from international students, whereas maybe that's an expectation they didn't have when they meet me and I say to them "let's just have a talk over a cup of tea", you know, maybe that's not something that's expected, and it does take a couple of sessions to get out with that, and often I find that students actually respond really nicely to that and go, you know , 'the formality has gone'.. ,you know, 'I don't have to worry so much; I can just have a conversation...'. At least, that's been my experience with my few international students.

(Sophie, 25/02/2021)

Sophie's statement highlights an awareness of the significance of the hierarchy and power dynamics of communication. This aligns with Schulze's (2012) study, which suggests that supervisors are aware of the impact of hierarchy on their communication with students. Schulze's study reveals that certain supervisors adopt a power-centred approach that establishes a hierarchy and hampers communication. In contrast, a facilitation-centred approach promotes sustained two-way communication within a supportive environment, empowering students. These findings emphasise the significance of adjusting supervisory styles to empower students and enhance communication, reinforcing the need for change in the supervisory approach.

In the same vein, Andrew considered having a good relationship with his students assists teamwork and allows him to better provide the (most) relevant support.

I think the relationship is important because it is not only helping the students ensuring their work is on track, but also have the supervisors in terms of understanding students and how we can provide the best

support we can to the students ... I need to support them, and in order to support them, it is important to have a very positive or good relationship. You cannot work together if the relationship becomes sour.

(Adam 26/02/2021)

Supervisors emphasised the need of managing the relationship with their students not only to keep the work on track, but also to have a better understanding of them in order to give effective support. Adam associated (effective) student-supervisor collaboration with having a positive relationship. For Goleman and Cherniss (2001), Relationship Management is an essential component of EI, which includes leadership, teamwork, and collaboration, developing others while managing conflicts, and influence (*ibid*). Several studies support that high EI contributes to improved relationship management (Nehrt, 2011; Sofiyabadi et al., 2012; J. Morrison, 2008).

Andrew considered that being open to expressing emotions is key to a successful supervisory relationship. He explained:

I think they should share their concerns with me. I ... hopefully I'm approachable enough that they feel comfortable doing that, but if they don't do that then it can be difficult or impossible to actually supervise them effectively.

(Andrew 15/12/2020)

Andrew drew a link between being approachable and students' ability to voice their concerns, which he believed would foster effective supervision. From his perspective, this was accomplished by creating a safe environment for them to do so. Sophie also emphasised this, saying:

When you have to then work really constructively to build that safety, then someone feels they can tell you. ...so that in a couple of meetings time, that student can say "Sophie. I'm not feeling very well".

(Sophie, 25/02/2021)

These statements are in line with Gunasekera and colleagues' (2021) autoethnographic study, which found that creating Psychological Safety (PS) for students to communicate their worries and ideas without the fear of being judged or

ignored could be an indicator of supervisors' high EI. Regarding the nature of the interaction between the students and their supervisors, Gunasekera et al highlight how their findings are supported by research conducted in the organisational setting, which found that an individual's EI is linked to their ability to influence team decisions. Woolderink et al (2015) suggested that graduate schools should establish an open and safe learning environment to enable successful supervisor-supervisee relationship. The (high) EI level of a team is believed to enhance decision-making by providing Psychological Safety (Ghosh et al., 2012; Zhou et al., 2020; Gunasekera et al., 2021).

According to many research studies, feedback can be a process that can trigger a wide range of emotions and frustrations (P. Young, 2000; Wang and Li, 2011). Creating that safety according to Andrew, Lisa, and Sophie helps when it comes to providing feedback.

if you have a rapport and you have trust in each other, and you have a good well-developed relationship, then you can say: "this isn't going that well right now, and you need to do something about it" without it, you know, having a fundamentally damaging impact on our relationships. So, yeah rapport is fundamental.

(Andrew 15/12/2020)

For supervisors, managing relationships and creating trust in the supervisory environment help in having their students process feedback constructively, which is consistent with Wang and Li's (2011) claim that feedback in doctoral research is not only about the content but also the interpersonal aspect of the feedback process. Therefore, effective feedback requires attention to the interpersonal dynamics of the supervisory relationship.

While supervisors emphasised the significance of building rapport with their students, supervisors reported that when it comes to supervising international students, and in particular, those who are new to the UK educational system (Algerian PhD students in this case), building rapport took longer according to Andrew's, Lisa's and Sophie's narratives. Andrew noticed his Algerian international student being "closed" in terms of expressing themselves, in the sense that he cannot tell whether they are doing well or having any concerns. This explains why supervisors believed that developing a

rapport with students is essential in supervision in order to provide better communication. This includes supervisors having a strong awareness of cultural differences (see the forthcoming section).

Supervisors clearly understand the significance of relationship management, which is considered the highest level of EI, and includes managing others' emotions, inspiring, influencing, and developing people (Cherniss and Goleman, 2001), but also aiming to see things from others' perspectives, which Goleman referred to as Social awareness or Empathy.

The next section will discuss the aspect of empathy in supervisors' narratives.

4.2.4 Empathy and emotional understanding

One of the attributes of EI is empathy (See Section 2.2). Supervisors saw that empathy has an essential role in building rapport with students. Empathy implies that a person is able to understand and identify others' feelings and perspectives, and also communicate what others appear to be feeling (Barker, 1970; see also Section 2.3.3.1). When interacting with their students, supervisors frequently mentioned the concept of empathy and understanding their student's emotions and concerns. One of the characteristics supervisors such as Sophie and Lisa attributed to empathy was active listening, with the latter stating

sometimes you realise that students all they want to do is talk to you about this ... they don't necessarily even want advice, they just need somebody to offload to. And I think it is the ability to listen in supervision, but that also may be gently leading this back to why the supervision exists in the first place, it's a skill.

(Lisa 08/02/2021)

Four supervisors attributed empathy to the ability to imagine themselves in their students' place and reflect on that from their perspectives. Andrew stated:

When I'm supervising a student... I do... not always, but sometimes I need to refer back to my previous experience and I try to put myself in this student's perspective that if I were her, what would I think?... seeing benchmarks or goals which are unachievable, and then their anxieties

and stress come from unrealistic expectations and objectives which can't really be met.

(Andrew 15/12/2020)

Both Lisa's and Andrew's statements indicate aspects of EI under the skill of empathy. In the second statement, Andrew addressed his ability to put himself into the student's shoes (i.e., perspective) and understand how the student might feel in a particular situation. This ability to understand and appreciate the student's perspective is a key aspect of empathy, which was highlighted by four supervisors. In Lisa's statement, she acknowledged the importance of listening to the student and being there for them as they offload their concerns. This ability to be present and attentive to the student's needs is also an important aspect of empathy. Perceiving and understanding emotions represent two key components of EI ability models (See Section 2.2.2 for more details) and were apparent in Andrew's description of EI:

... they [students] are worried whether they're going to succeed, and I think if supervisors don't have the emotional intelligence to spot that, to grasp it, to see it in their students, to interpret that behaviour and what they are saying and realise what's underlying it, then you are going to miss opportunities to deal with their problems to offer the necessary reassurance and support and advice.

(Andrew 15/12/2020)

Andrew considered that a lack of EI will result in having problems with engaging properly with students' problems.

Lisa and Sophie stated that they occasionally provide pastoral support to their students. Sophie's questionnaire and Lisa's interview both highlight this.

It is an unfortunate truth that every doctoral student I have met, including myself, has dealt with their own negative emotions when engaged in doctoral research. At this stage of a student's journey, my role as a supervisor becomes more explicitly a pastoral support role than an academic support role for a time.

(Sophie's Questionnaire)

When Lisa noticed her students were struggling and/or unable to manage a problem, she adopted the role of “being a second mother” as a means of providing care.

there are issues all the time, and I will have to make a decision with students. With students who are no longer able to contact the counselling service themselves and I would have to establish the original contact by email or the disability service for example, which students aren't happy to do that themselves ... it shouldn't really be my role... but somehow, I have become the mother, which is to be honest is fine if it helps the students to complete their degrees, and if this is the role the students want me to have, I'll happily have that role, you know, I do think my emotional intelligence is high enough to respond appropriately.

(Lisa 08/02/2021)

Sophie recognised the emotional struggles that doctoral students face and acknowledged her role as a pastoral support figure. This demonstrates a high level of empathy, which is the ability to understand and respond to the emotions of others, especially during times of distress. Similarly, Lisa described her willingness to take on a supportive role beyond the scope of her academic responsibilities. She recognised that some students may require additional support with personal or emotional issues, and she was willing to step in and provide that support. This level of empathy also includes the ability to recognise and respond to others' emotional needs.

While advocating student's autonomy, according to a research conducted by Christie et al. (2004), there are occasions when students are more inclined to communicate with their supervisors instead of reaching out to counselling services. McChlery and Wilkie's (2009) study conducted on vulnerable students at university indicated that students were reluctant to seek the counselling services' help. They found that the effectiveness of student advising is diminished when academic staff delegate their responsibilities to impersonal centres. This issue becomes even more problematic when students who are at risk of academic challenges avoid facing and addressing their problems. Gunasekera et al. (2021: 8) believe that “international students are particularly vulnerable in a foreign country” because they engage in a new cultural, linguistic, economic, educational, and social life. On occasion, supervisors may thus find it difficult to communicate with such students – given their

practice of not (generally) expressing their concerns. Andrew, Sophie and Lisa, for instance, talked about the ‘closed’ or ‘private’ nature of some of their international students:

There was a student I found quite difficult to supervise because they were very ‘closed’ and unforthcoming when I would seek to engage them in discussions about how things were going and how they felt about their progress. My perception was that the student was struggling and had not really grasped the nature of the demands of a PhD thesis while the student themselves seemed relatively happy with their progress.

The matter was further complicated by the fact that the student came from a different cultural background to me. This raised questions both about differing perceptions of what is required from a PhD thesis and what exactly it was or was not appropriate to enquire about. Under these circumstances I found it difficult to work out exactly how to build the kind of relationship one needs to have with a PhD supervisee, namely one which is supportive and trusting but also frank and open about problems and changes that need to be made.

(Andrew’s Questionnaire)

UK students are much more likely to say “I really don’t feel well, I don’t want to ... I can’t do it right now”. Whereas international students are much more likely to push through until they get to a breaking point. And then they can’t help themselves but talk about their emotions.

(Sophie, 25/02/2021)

I think another challenge is that international students tend to be more private, so they don't necessarily tell you anything unless it's almost too late, unless there are serious issues and then starting to fire it all, and then it's really ... then I just have to be really quick at responding.

(Lisa 08/02/2021)

Andrew was attempting to understand and engage with a student who was struggling and unwilling to discuss their progress. He understood the potential of cultural differences influencing the student's perception and approach to their PhD thesis.

Similarly, Sophie and Lisa acknowledged that students may be more private and hesitant to share their problems with others until they become serious. This demonstrates an effort on the part of the supervisors to understand the student's point of view and work towards developing a supportive and trusting relationship as well as an effort to empathise with the cultural differences that may be influencing the student's behaviour and communication style. Lisa also recognised the importance of responding quickly to serious issues, which can be viewed as an empathic approach to supporting their students. Supervisors recognise that some students struggle with managing and expressing their emotions effectively, leading to challenges in the supervisory relationship and hindering adequate support. This aligns with the findings of Doloriert et al. (2012), which indicate that students often have a limited ability to regulate their emotions and may not even be aware of displaying or experiencing their emotions. This necessitates developing EI in supervisors as well as students (see Section 6.6).

The issue of cultural differences was articulated by four supervisors who noticed that cultural differences sometimes hinder effective communication. Lisa stated:

I think there's a big cultural difference on so many levels, and I don't think we're trained enough to actually acknowledge and work with these cultural differences usually with international students.

(Lisa 08/02/2021)

Lisa signalled that supervisors need to have training with regards to cultural differences (see Section 6.6). This is in line with Bui's (2014) suggestion that awareness of the cultural differences and cultural sensitivity is recommended for supervisors' training as it fosters empathy. Sometimes, supervisors reported that they rely on other cues to detect emotions in students who were reluctant to express themselves openly. Lisa discussed how it is crucial for her to study her students' facial expressions, body language, and any other behaviour that might help her interpret how they feel when she speaks to them face to face. When this was not feasible due to the pandemic, she insisted on using video calls in remote communications to compensate, to some extent, for not being physically present (and thus in the optimum position to observe those variables).

I think you can easily just kind of detect anxiety. This is why I also like to work with camera even in bigger meetings, because it has to do with how students hold their bodies, what they do with their hands, how focused they are, what their whole postures are like, how much tension they have in their bodies, how tired they look. And to me it's important.

(Lisa 08/02/2021)

Lisa's statement shows her awareness of nonverbal cues and body language, which is an important aspect of EI (Mayer et al., 1997). It also indicates that she valued and paid attention to the feelings and experiences of her students, as she believed it is important to observe how they present themselves. However, she emphasised that she did not give every student the same space to express anxiety. She relates this to the needs of the students.

But sometimes giving space to articulate and linger with the anxiety doesn't help the student. So, some students, and again it's not all of them, but some students need to be told "okay I acknowledge your anxiety. Let me know if it gets worse, but for now this is the plan 1, 2, 3. I speak to you next week". So, the students for whom this works really well, they appreciate this.

(Lisa 08/02/2021)

This excerpt demonstrates Lisa's empathy and sensitivity towards her students' anxiety. She recognised that not all students benefit from the same approach and that some may need more direct guidance and reassurance. By acknowledging their anxieties and offering a clear plan, Lisa was demonstrating her ability to understand and respond to the emotional needs of her students. Lisa emphasised in this example that she set a balance between encouraging students to express their concerns when she felt it essential and focusing on the work when she deemed it necessary, for the sake of helping the student in successfully completing their project.

Interestingly, Adam stated that checking on his students' progress helped him understand his students.

I always say, 'if something happens just let us know', and that 'we are there for you to support you, so you don't feel that you are alone. We understand the situation that you are in'. and I look at the progress in order to see whether they have any problem caused by the pandemic or

not. Sometimes students say they have no issues, but they do have. I look at the work in order to verify whether this is true or not.

(Adam 26/02/2021)

Adam's linking of understanding his students with checking on their progress can be considered an aspect of EI. This demonstrates a high level of social awareness and empathy, as Adam recognised that students may not always be forthcoming about their difficulties, and therefore took a proactive approach in assessing their progress to determine if there are any underlying issues. His willingness to support his students and provide emotional support when needed shows aspects of EI social skills including empathy and relationship management qualities including influence and communication: wielding a range of tactics for persuasion (Goleman et al., 2013: 39). Supervisors stated that they value their student's emotions since these feelings provide information about students' emotional states and, in turn, they reflect their PhD projects status. Accordingly, supervisors stated they may need to shift identities and ways of providing feedback to satisfy their students' needs. Supervisors mentioned the importance of relating to their own personal experiences. Four supervisors referred to their own experiences as PhD students in an attempt to understand and relate to what their current students were struggling with, especially when students struggle to express themselves openly. This indicates the interplay of EI skills, in particular, empathy and rapport building when it comes to understanding and managing their students' emotions. However, Mike declared that because he obtained his PhD 20 years ago, he found it difficult to empathise with or understand his students' struggles because he did not find his own PhD experience difficult, although he had 14 years of supervision experience.

it was 25-30 years ago ... totally a different experience...I didn't really struggle. So, I don't always feel like I'm very in tune with them. I think I often I'm impatient with them ... I can't remember when I successfully manage my anger. I find that really difficult, so I don't try to ... I don't have the ability to do so. I don't have the ability to hide it successfully. Okay, so the person will know.

(Mike 23/02/2021)

This example suggests that Mike may struggle with some aspects of EI, specifically in managing his own emotions and being patient with his students. His admission that he does not feel in tune with his students suggests a possible lack of social awareness and empathy, which is a key aspect of EI. This may affect his ability to understand his students' needs, emotions and reactions to their actions. Mike's statement appears to contradict Bengtsen's (2014) argument that assumes that as supervisors gain more experience and expertise, they develop a greater capacity for empathy towards their students (see Section 2.4). Although the other supervisors have varied length of supervision experience: Andrew (15-year experience), Lisa (4-year experience), Adam (3-year experience) and Sophie (1-year experience), they seem to have a more empathic attitude towards their students and seemed to easily be able to relate to their student's struggles than Mike (14-year experience). This indicates that expertise in supervision may not necessarily be an indicator of the extent to which a supervisors can be empathic towards their students. Furthermore, Mike's acknowledgment that he struggles with managing his anger and that he does not try to hide it, indicates a possible lack of emotional regulation skills, which is another key aspect of EI. This may cause Mike to react impulsively to situations, leading to misunderstandings and conflicts with his students, or leading students to feel unsupported. Indeed, he stated: "they do tell me things, but I don't know whether it's the most important thing". This statement suggests that the supervisor's lack of EI has resulted in a lack of attunement in the supervisory relationship with his students, as he stated earlier that he is not the kind of person who listens to his students and shows interest in their concerns, and that it is not his job to do so. He does not consider issues that are not directly related to the tasks at hand as important, and this leads to a lack of interest in building a positive relationship with his students. He admits to being impatient with his students and not being able to hide his anger, which further affects his ability to build a positive relationship with them. This can negatively impact their progress and well-being. This equates to studies that indicate that inadequate EI and mismatch in supervisory styles, such as proving insufficient support to dependent students, lead student's dissatisfaction and low completion rates (Gunasekera et al., 2021; Doloriert et al., 2012; Taylor et al. 2019). The other supervisors stated the opposite, i.e., supervisors attempted to support their students when they could relate to their students' struggles based on their own experiences. This could also imply that having shared experiences is another significant reason for these supervisors to exhibit EI qualities.

Contrary to Mike's perspective, Andrew, Adam, Sophie and Lisa suggested that a useful technique for evaluating the emotions of PhD students is to recognise that feelings of discomfort, loneliness, and uncertainty are common experiences that can be validated by supervisors. This validation can contribute to a sense of belonging and reassurance for students. Sophie even went as far as drawing a parallel between the experience of imposter syndrome among students and the majority of academics.

the absolute universal of PhD student experiences is imposter syndrome, right? And going "I can't do this, I'm not good enough for this. This is never me". And I tell all of my students it doesn't go away, look at your supervisor, look at their boss, they all still feel that way. I don't know what it is about academia. I don't know what it is about academics, but nobody feels like they belong there. So, instead of going "I can't do this, you kind of go up at least I'm in a group of people who feel like we don't belong, which means they belong somewhere".

(Sophie, 25/02/2021)

Several EI aspects are prevalent in Sophie's example, not least empathy and emotion management (which is represented by reassuring and developing students' sense of belonging). Sophie relies on her personal experience to be able to understand what her students feel, which helps her develop an empathy towards them. This then helps her manage any feelings of low self-esteem through normalising techniques and a positive reframing technique to help students view their sense of belonging in a different, more optimistic way. This aspect of sense of belonging has been shown to increase individual's confidence (Baumeister, 1998). Developing and maintaining strong relationships with others involves a sense of belonging, which is seen as a fundamental psychological need (Maunder, 2018). Moreover, belonging is found to be vital in sustaining academic motivation and success in HE (Gillen-O'Neil, 2021).

Sections 4.2.3 and 4.2.4 results show that supervisors utilise a variety of strategies (active listening, reading students' behaviour and postures, appreciating face-to-face and video meetings to ensure they have the necessary sources to assess their students' emotional state, reflecting on their own experiences to be able to relate to their students' concerns, and validate them and positively reframe them) to

appropriately understand and empathise with their students' emotions and promote a strong supervisor-supervisee relationship.

The next section will discuss aspects of emotional management in supervisors' practices.

4.2.5 Managing emotions in the supervisory relationship

Following the identification of supervisors' strategies in understanding their students' emotions, this section will discuss the ways in which they use such strategies to help their students manage these emotions, on the assumption that these two skills (understanding and managing emotions) are interconnected.

Supervisors indicated that, in order to effectively manage emotions, they first had to be able to recognise and interpret such feelings. However, it was not always easy for them to do so. As discussed in Section 4.2.4, supervisors had to use various techniques to understand their students' emotion.

Supervisors emphasised that they found it challenging to deal with students whose emotions are not clearly articulated or are not apparent in verbal communication (given the hierarchy of expectations by international students, as mentioned in Section 4.2.3). This makes it harder for the supervisors to engage in managing their students' emotions. Because this was a common concern among supervisors (Adam, Lisa, Sophie, and Andrew), they found that drawing on their own experiences and sharing them with their students helped their students feel more reassured and confident.

I think the primary benefit of relating one's PhD is to do with making them feel a bit more comfortable in what they are doing. It can perhaps have some relevance in terms of reassuring them.

(Andrew 15/12/2020)

Sharing, I think, emotional experiences from an objective standpoint can also alleviate some of those struggles that people have ... One of the examples that I always give is when it came to my Viva, my supervisor used to say don't see it as a test. See it as your opportunity to discuss [it] with two like-minded people from the same area who are as much of expertise as you are to discuss your work and get advice, encouragement

and ideas to really see how confident you are with your own idea ... it's not a testing situation, you will never ever get two hours again in your life to just go on and on and on about your PhD. So, see this as an opportunity, and because it really changed my view of the Viva, this is the first thing that I always tell my students.

(Lisa 08/02/2021)

Both excerpts indicate aspects of EI, namely, emotion regulation and empathy. Andrew mentioned the benefits of relating one's PhD experiences to make students feel more comfortable and reassured, which can be seen as an attempt to regulate their emotions. Similarly, Lisa talked about sharing emotional experiences and reframing a stressful situation (the viva in this case) as an opportunity for discussion and growth, which can be also seen as a strategy for regulating emotions. This aligns with the findings of a study conducted by Gunasekera et al. (2021), which suggests that supervisors with high EI are well-equipped to provide support to PhD students who are struggling with overthinking about completing their research projects. In such cases, a supportive supervisor could encourage the student to focus on enjoying the process of completing their doctoral project.

Supervisors reported that the PhD is an emotionally charged journey. Andrew, for instance, considered that much of what goes wrong and might go wrong with a thesis is due to the emotional and psychological stressors that are involved, rather than the student's intellectual abilities. Hence, he believed that sharing his experiences was essential for reassuring his students. He explained:

I share my experiences with my students. I mean it's one of the... kind of the key things I mean ... I absolutely do put myself in their shoes and try to explain things from the point of view of my own experience... it's sort of, point to my own personal experience as a way of showing students kind of that we're all in the same boat.

(Andrew 15/12/2020)

Lisa narrated how she's been in her student's situation when submitting and having that confidence crisis. She described how her supervisor was there to offer support.

I think the last six months of my own life as a student as a postgraduate student, I was sitting in my supervisor's office every time crying my eyes out and all I would ever say is I can't do this ... we didn't discuss any subject related content anymore...that was all done. I had pretty much written my PhD, but it was just up to him and he was an amazing supervisor to build me back up every two weeks so that I can walk out of his office and say yes, I can do it.

(Lisa 08/02/2021)

Supervisors insisted that their own supervisors were key factors in acquiring EI skills such as empathy and managing emotions, and the fact that they were once PhD students and had gone through similar struggles helped them understand their students' emotions and enable them to act on that effectively, one of which is to let students know they are not an exception and that they are not alone in that. Sophie added:

it's an unfortunate truth that we all struggle with emotions throughout the project and that's largely because it's such a long time, you know, you're bound to have something happens in life, or, you know, something goes on with your research it doesn't go quite right, an experiment you're doing doesn't get the results you want, then we deal with these negative emotions, and I think that sometimes it's nice to hear you're not alone in having felt that.

(Sophie, 25/02/2021)

Sophie's statement highlights various aspects of EI skills (empathy and social awareness, emotion and relationship management). She emphasised the importance of acknowledging and validating the emotions experienced by PhD students. She also recognised that negative emotions are a common experience for PhD students due to the long and challenging nature of the project. She also added that it can be helpful for students to hear that they are not alone in their struggles with negative emotions. Sophie mentioned that she used a 'hypothetical friend' strategy to provide reassurance by allowing the students to reflect on themselves when they are unable to see their progress.

sometimes it's nice, I think, to bring a sort of hypothetical friend into it. So, say you know "if your friend said to you, I've done this, this, and this but I'm not doing anything, how would you react to that friend?" and then they say something like you know "I tell them to stop being so hard on themselves I tell them they've been succeeding". So, I kind of go "well I'm being that friend to you now, so you know start stop being hard on yourself"

(Sophie, 25/02/2021)

Sophie in this example sought to help her student develop an awareness of her own feelings, so that they are able to manage them and gain self-motivation. This is an indicator that this supervisor is developing her student's EI by using a technique of "hypothetical friend" to help her student think about and be aware of her achievements – something that she had neglected due to her low self-esteem. This strategy was used to help the student feel supported and encouraged. She also used effective communication skills to help her student reframe their thinking and adopt a more positive outlook.

Discussing emotions was regarded as an important aspect in the supervisory process according to Lisa, Andrew, Adam, and Sophie, with the latter saying

if I stayed as this academic supervisor and said, it doesn't matter, push through, and get it done. That's not going to work for a lot of people, and it's probably going to lead to them leaving.

(Sophie, 25/02/2021)

Another approach used to manage their students' emotions is to first provide a safe environment in which to express their emotions (as stated in Section 4.2.3) then lead them through a shared decision-making process. Sophie presented an instance with her student:

she said to me: "Sophie I'm really struggling; I feel like I don't belong ...". And I say that sounds less like it's about the work, and it sounds more like it's about how we feel about the work, or how we feel about ourselves so let's park the work for a bit and let's get to the root of that, why are we here? ... what has led you to this path?

(Sophie, 25/02/2021)

In this example, Sophie valued her students' concerns (given that she provided the student with space to express their emotions) as much as she kept track of their research progress, indicating her understanding of the interaction between the students' psychological state and their academic achievement. Sophie's response indicates her EI, particularly in the area of empathy and emotion management. She showed empathy by recognising her student's emotions and addressing them directly. By focusing only on the underlying feelings and causes, she was also practising emotion management, as she sought to help her students identify as a means of coping with their emotions in a constructive way. This indicates students' vulnerability when it comes to managing their own emotions during the PhD and the necessity of supervisors' support (Doloriert et al., 2012)

As previously stated in Section 4.1.2.1, students need to trust their supervisors in order to voice their concerns, which is realised when the parties establish a positive relationship. This is evident in Gunasekera et al's (2021) findings that the supervisor's EI promotes the students' psychological safety in doctoral student-supervisor interactions, allowing the students to communicate their thoughts and concerns. Supervisors' responses suggest that, to ensure they have a rapport with their students, it is essential that they possess the interpersonal aspects of EI: empathy and the ability to manage their students' emotions.

The ability model of EI by Mayer et al (2016) implies that emotional management entails the ability to manage emotions in oneself and in others. Supervisors manifested an understanding that, to be able to manage their students' emotion, they have primarily to be able to manage their own emotions especially with challenges they face throughout the process of supervision. This finding is intriguing since previous research has primarily concentrated on student emotions, neglecting the significance of supervisors' emotional well-being for achieving positive outcomes for both students and supervisors. While the emotional challenges faced by doctoral students have received considerable attention, the emotional experiences of their supervisors remain insufficiently explored (Han and Xu, 2021). Supervisors reported they were frustrated and angry at times and thus had to manage their emotions so that they can manage a particular situation. For example, because of students' negative self-evaluation,

supervisors like Lisa, Adam, and Sophie have seen instances where their students doubt the positive validations they deliver to them. Sophie said:

there are times when I get frustrated, for example, if a student is doing really good, really solid work, and they say: "Oh, I'm [****] at this", or "this is [****]". I get frustrated, but I don't get frustrated within me, I get frustrated for them, it's this kind of I understand that you're frustrated by yourself because you're being told these good things and you can't see it.

(Sophie, 25/02/2021)

Supervisors emphasised that managing their own emotions is just as important as managing the emotions of their students.

I might not always have the best vibe in the supervision, but that's relatively easy to control, because I always think it should be productive and I think of my own experience. It doesn't help anybody to be negative to be whining ... to be moaning ... it has to be constructive, and the student should go away thinking that was a productive supervision.

(Lisa 08/02/2021)

Supervisors in this case used positive reframing as a means of shifting their students' attention towards what has been achieved, with the aim of increasing their students' confidence. Sophie said:

It's just simple things like: " tell me what you've successfully done in the last couple of weeks since I saw you". And that makes people frame it as a success. So, rather than saying: " what have you done in the last two weeks" ... So, it's seeing ... it's reframing things as positives rather than negatives and I hope that I sort of build a space where my students feel confident. And a big part of that is modelling that confidence and going you know we can have the shaky bits and still be confident we can still sometimes go: "do I belong ?" and still feel confident, you know, that they're not separate entities.

(Sophie, 25/02/2021)

Sophie emphasised the significance of the language she used in positive reframing as

she put it “co-constructing narratives” as a means of guiding the students towards focusing on a particular angle, and more importantly, towards achieving the shared goal of completing the PhD. The aspect of influencing others towards one’s goals or shared mutual goals is one of EI’s essential aspects (Cherniss and Goleman, 2001).

Supervisors presented several examples of how they dealt with their students’ worries when we discussed the interpersonal effects of their feedback. According to supervisors, providing feedback is connected to communication in the supervisory relationship. It may elicit a wide range of emotions in students, as previously indicated (see Section 2.3.3.3). As supervisors noticed, this prompted them to pay attention to the psychological aspect while offering feedback.

sometime students have misunderstanding, probably he or she, you know, has a bad perception about himself or herself, because sometimes the feedback that somehow creates a lot of different emotions... it is very important to clarify.

(Adam 26/02/2021)

Adam realised how important it is to consider the emotional impact of feedback on his students with low self-esteem. This was also articulated by other supervisors, which then led them to conclude that building a rapport with students enabled them to articulate feedback without the fear of causing any (emotional) harm to them. Andrew stated:

you need to be able to be frank with people about when things are going well, and when things are going badly, and, you know, if you have a rapport and you have trust in each other, and you have a good well-developed relationship, then you can say: “this isn’t going that well right now, and you need to do something about it” without it, you know, having a fundamentally damaging impact on our relationships. So, yeah rapport is fundamental.

(Andrew 15/12/2020)

Supervisors reported that their feeling of frustration was the most common emotion when it comes to issues with regards to feedback.

In my case frustration has typically arisen from students - in my perception - failing to grasp or understand something which to me seems quite clear and which I think has been explained quite clearly. On some occasions I have experienced explaining something perhaps two or three times only to have the latest draft of the work returned to me with the problems unaddressed.

(Andrew's Questionnaire)

Supervisors reported that they struggle with communicating feedback to their international students. Although this was not limited to only international students, it was observed more frequently with them. Adam described one of his students as "opinionated" implying that she rejects his feedback and even failed to respond to it. Similarly, Lisa addressed the issue of feedback by saying:

then it's a question of how to tell the student [feedback] and again that's very individual and yet even this the one student who I had to talk [with] quite directly doesn't hear me doesn't want to hear that feedback literally ignores that feedback and goes on and on and on ...

She added:

I've had one particular student who wouldn't listen, and it becomes frustrating and becomes really frustrating where in the supervision I would go very quiet because I knew if I now started to open my mouth I would scream and that's inappropriate that doesn't help anybody.

(Lisa 08/02/2021)

These examples signal that supervisors also struggled with various negative emotions during supervision. Lisa indicated her ability to manage her negative emotions. Despite her irritation, she restrained herself from acting on it. Instead, she thought of ways to make the supervisory session productive for her students.

... I will filter my emotions, and this is maybe once considered to be professional to such an extent that I can create the positive learning environment, and I have to deal with my own negative emotions ... can be that I talk about it afterwards that I go for run afterwards ... whatever that might be but as a professional who's there to help the students

complete their PhD. It's my role to create an environment in which they can learn

(Lisa 08/02/2021)

Similarly, Andrew addressed this by stating:

It may be the case, for example, that the reason that we are angry/frustrated is fundamentally that we are busy and now student X has submitted another draft making the same mistake and that triggers a burst of irritation. But if we reflect properly, we can see that the real cause of the frustration is the workload and that's not the student's fault.

(Andrew's Questionnaire)

Motivation has been widely discussed when it comes to discussing the supervisory relationship. Supervisors emphasised that it is essential to motivate their students, especially during the long journey of the PhD. Lisa stated:

Quite a few students are more motivated when they know it's related to a person than when it's to some unknown goal. so I do think the role that the supervisor has in supervision is also to motivate the student, and this again has only to do with the emotional intelligence because motivation can mean anything... motivation can mean write a 100 words everyday motivation... it can mean, you know, together we sort your childcare issues... motivation can mean, you know, I promise I'll celebrate with you once you have graduated... motivation, you know, it can mean so many things so it's up to the supervisor to figure out what that motivation can be.

(Lisa 08/02/2021)

Lisa's statement relates to the emotion management aspect of EI. She emphasised the importance of students' motivation, which is a key factor in managing their emotions. She suggested that supervisors need EI to understand what motivates their students, which can be different for each individual. By identifying what motivates the student, the supervisor can help manage their emotions and keep them focused and engaged in their work. This was articulated by other supervisors who displayed an

awareness of the emotional aspects of supervision and the need for supervisors to be attuned to the students' needs and motivations.

Supervisors recognise the significance of managing their own emotions to be able to adequately support their students. Supervisors such as Sophie and Lisa saw that doctoral supervision needs training at the psychological and cultural level implying that EI, empathy, and emotion management in particular, is essential in doctoral supervision. This is in line with Han and Xu's (2021) study that emphasise the importance of considering the psychological well-being of supervisors alongside that of students in doctoral supervision. The authors recommend provide training and support for supervisors for effective emotional management (see Section 6.6).

The importance of the student-supervisor relationship is emphasised by Ku et al. (2008), particularly for international graduate students. This significance is heightened by the challenges that these students face, which include extensive cultural adjustments, language barriers, and the need to navigate academic culture (as stated by the students and supervisors in Chapter 5).

This study findings indicates the significance of acknowledging the emotional aspect of supervision and provides insights into how EI played a significant role in addressing this dimension.

4.2.6 Summary

The findings show that students perceived emotion generally and EI associated skills as important aspects of the supervisory process. EI, in terms of understanding and correctly labelling emotions (see (Mayer et al., 2016), was especially evident to them when their supervisors showed interest in and care for their psychological state. When it comes to other aspects of EI, students collectively acknowledged several aspects to be important (albeit to different levels) but were not always able to and/or confident in attributing them to EI explicitly, due to their lacking a thorough understanding of EI (as many students stated that they did not know EI before participating in this study). Noticeably, those students who were the least able to relate EI explicitly to their experiences, appeared to have a more negative or neutral attitude towards EI as a concept. However, supervisors' displays of EI skills were prevalent in many of the students' observations in a variety of ways in the supervisory context. Sharing relatable

stories, normalising students' struggles, and positive affirmation illustrated emotional management. Students noticed empathy and emotional understanding when their supervisors were actively listening to them, and showing interest in how they felt about the entire process. Moreover, their supervisors' ability to manage their students' emotions was a result of their ability to understand their emotion. When it comes to talking about the specific EI aspects of emotional support and relationship management, there is clear evidence nonetheless of each being understood as being invaluable to the HE supervisory context. EI elements of note, in this regard, include empathy, emotional management, trust and building rapport and motivation.

Applying EI skills during supervision resulted in the supervisory relationship being effectively managed. Many supervisors stated that having a positive rapport with their students makes supervision more successful and enables supervisees to feel safe to voice their worries, ideas, and questions, allowing their supervisors to give the necessary support. Empathy and emotional management were deemed essential abilities for a successful supervisory relationship by students and supervisors. In this chapter, several examples of how EI skills occur in this context are presented, and they clearly show how those qualities overlap and positively correlate with one another.

Being accessible and approachable, trustworthy, demonstrating concern, active listening, appreciating, positive affirmation and reframing, and motivating by sharing experiences were all examples of EI in the supervisory environment, all of which, according to students and supervisors, have contributed to the development of rapport, which is primarily represented by empathy and emotional management.

EI is valued differently in this study's context by supervisors. Some supervisors can provide emotional support and actively listen to their students' concerns, while others may prefer a more hands-off approach. Ultimately, the importance of EI in doctoral supervision depends on the specific needs and preferences and expectations of individual students as supervisors' narratives and views in these sections indicate, which suggests that displays of EI in doctoral supervision relies on the student's particular circumstances (See Section 6.6).

TA of participants' responses provided a rich understanding of the themes that emerge. However, to gain a deeper understanding of how these themes are framed linguistically, CL were used to analyse the patterns and frequencies in the language

use related to EI in doctoral supervision. The next Chapter will examine the linguistic features used in this context to gain insights into how EI is talked about and understood in doctoral supervision. This can provide a more comprehensive understanding of the role of EI in doctoral supervision.

5 EXPLORING THE LINGUISTIC FRAMING OF EI-ASSOCIATED SKILLS IN STUDENT-SUPERVISOR RELATIONSHIP: A DATA DRIVEN APPROACH TO CL ANALYSIS

For this aspect of my studies, I have used Wmatrix4 software which employs the USAS semantic tag set. This semantic tag set classifies words into semantic fields (see Section 3.5.2 for an explanation of the USAS). This chapter draws upon relevant semantic fields (noted in the following section) in order to analyse the language used by students and supervisors in their semi-structured interviews. The objective is to identify how EI skills are framed linguistically in these discussions. The Wmatrix4 software was developed by Professor Paul Rayson from the University of Lancaster. It is used to perform various types of linguistic analysis on a corpus, including keywords analysis, collocation analysis, and concordance analysis. By using a linguistic analysis of specific language features in their context-of-use, we can gain a more nuanced understanding of how EI-focused language is being drawn upon in the HE academic context. In line with this, this chapter first explores the students' dataset and then the supervisors' dataset to identify language patterns relating to various EI associated skills.

5.1 Analysis of EI in the context of doctoral supervision (students' dataset)

5.1.1 Introduction

A useful feature of Wmatrix4 is that it goes beyond the keyword level to group together words under 'key' semantic fields or semtags. This analysis focuses on those 'key' semantic fields that have been shown to have a link with the qualities of EI in a HE context, including but not limited to, *E: Emotion in general, X: Psychological actions, states and processes, and S: Social actions, states and processes* (see 5.1.2, below, for a full list of the statistically significant keywords and key semantic fields that were selected and subsequently analysed). The decision to focus on the 'key' EI-related semantic fields is influenced, in part, by the thematic analysis phase (discussed in Chapter 4), which revealed that particular EI skills are valued by both students and supervisors and that the interpersonal elements are highly emphasised when it comes

to the supervisory relationship. This corpus-based semantic analysis phase aims at adding a layer of linguistic evidence to these EI associated skills by exploring how the skills are represented linguistically (something that tends to be missing from the extant EI-focused studies). I discuss, for example, how EI skills such as empathy, influence, rapport, and effective communication have been labelled or referred to in this HE context.

5.1.2 Keyword and key semantic fields findings in students' dataset

The results for the students' dataset, based upon USAS, show that there are 318 overused (i.e., statistically "key") items with an LL cut-off point of 6.63 or higher. This equates to a minimum confidence level of 99% that these items are not occurring by chance alone (Archer and Gillings, 2020). Figure 5.1 below illustrates the most recurring keywords in the students' interviews collectively. Note that they include keywords like *motivation, harsh, meeting, emotional, struggles*, etc.

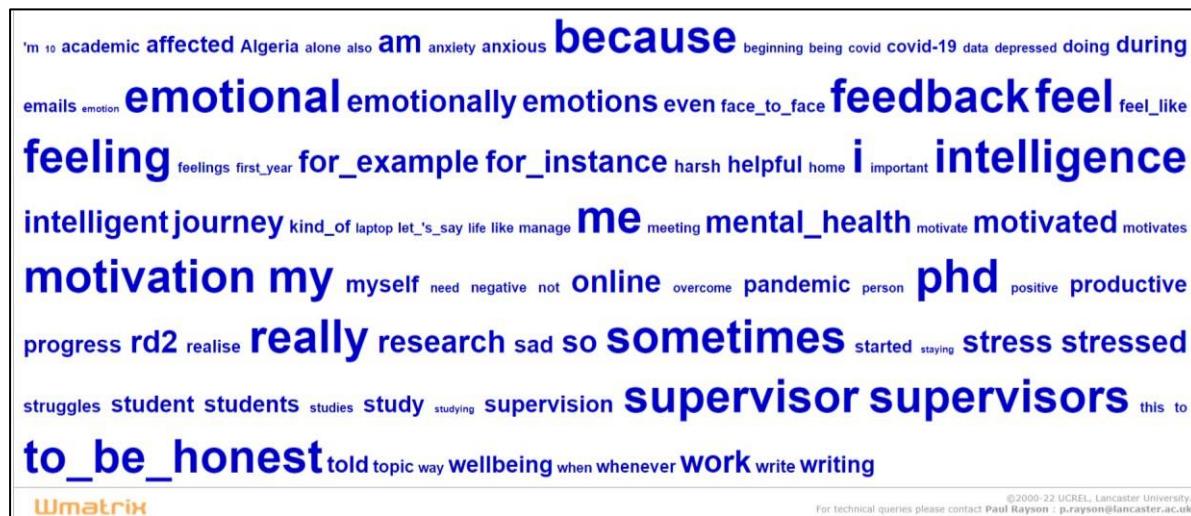


Figure 5.1: Keyword cloud of students' dataset

The most frequent terms are related to education (e.g., *PhD, students, feedback, supervisor, research, writing*), followed by terms linked to emotion (*emotional, emotionally, stressed, motivation, wellbeing, harsh...etc*). This is consistent with the interview's main topic of discussion, namely, the students' reported supervisory interactions. A next step was to determine how the keywords from Figure 5.1 (e.g., *emotionally, motivation, stressed* and *struggles*) are grouped together under a semantic field. Figure 5.2 below shows the top key semtags captured at a cut-off point of LL6.63.

Item	01	%1	02	%2	LL	LogRatio	
P1	432	1.16	1928	0.20 +	759.56	2.57	Education in general
E1	132	0.36	137	0.01 +	512.25	4.67	Emotional Actions, States And Processes
X2.4	196	0.53	889	0.09 +	339.95	2.55	Investigate, examine, test, search
A13.3	531	1.43	5457	0.56 +	337.46	1.37	Degree: Boosters
N6	128	0.35	399	0.04 +	293.65	3.09	Frequency
S7.1+	348	0.94	3064	0.31 +	285.52	1.59	In power
A2.2	246	0.66	1891	0.19 +	244.49	1.79	Cause&Effect/Connection
S1.1.3+	142	0.38	660	0.07 +	241.19	2.51	Participating
E6-	145	0.39	733	0.07 +	228.52	2.39	Worry
X4.1	173	0.47	1066	0.11 +	223.83	2.10	Mental object: Conceptual object
X2.5+	128	0.35	684	0.07 +	191.46	2.31	Understanding
X2.1	527	1.42	7031	0.72 +	190.64	0.99	Thought, belief
S3.1	133	0.36	752	0.08 +	188.20	2.23	Personal relationship: General
I3.1	272	0.73	2747	0.28 +	178.33	1.39	Work and employment: Generally
S8+	221	0.60	2020	0.21 +	171.14	1.54	Helping
L1+	45	0.12	51	0.01 +	169.34	4.55	Alive
A13.1	92	0.25	487	0.05 +	138.86	2.32	Degree: Non-specific
A2.1+	185	0.50	2031	0.21 +	103.84	1.27	Change
E4.1-	72	0.19	400	0.04 +	103.69	2.25	Sad
Q2.2	377	1.02	5794	0.59 +	89.91	0.79	Speech acts

Figure 5.2: Top 20 most frequent semantic fields in students' interview data

At a cut-off point of LL6.63, the results show that there are 44 overused (i.e., statistically 'key') USAS tags. Figure 5.2 demonstrates the top 20 key semantic fields in the students' dataset. In this Figure, (01) indicates the frequency results of an item in the students' dataset, while (02) indicates results from the spoken British National Corpus (BNC). It is worth reiterating that the LL score refers to the Log-Likelihood score, which shows whether or not the results are statistically significant (McEnery and Hardie, 2012).

P1 (Education in general) stands out as the most 'key' semantic field within this data set, given its association with the topic of supervision, which falls under the broader umbrella of education. Although the key semantic field of *E1 (Emotional actions, states and processes)* ranked the 2nd, it is the most significant domain with the highest Log Ratio of 4.45, where aspects of emotion and EI have been captured. This is particularly noteworthy given Hardie's notion that Log-Ratio can be more important since it provides more information to the analysis about how big the difference is in the use of an item between two corpora. See <https://cass.lancs.ac.uk/log-ratio-an-informal-introduction/> for more details. Other semantic fields that are also worthy of detailed analysis (given my research aims and objectives) include *X1 (Psychological Actions, States and Processes)* and *S1 (Social Actions, States and Processes)*. This is because of their links with emotion in context. The semtags within those major semantic domains capture aspects in relation to the notion of emotion and EI. For instance, when looking at the concordance lines for the semtag, X2.5+: *Understanding*

(that has a LL= 82.84 and LogRatio= 2.03), several items are captured such as *empathy*, *understand*, *understanding*. Such items refer to the notion of emotional understanding and empathy, that is, a core aspect of EI. See Figure 5.3 below.

about that sort of social knowing that empathy , I guess . I certainly think , implicitl	54	More
frustrated for them , is this kind of I understand that you 're frustrated by yourself beca	55	More
that that 's emotional intelligence or empathy into a point because you 're feeling for	56	More
that awareness , that regulation , with understanding of the people and how they react is such	57	More
to illustrate the fact that I tried to understand their situation and I say that partly bec	58	More
o use my experience to show them that I understand there 's ... even though it 's not possib	59	More

Figure 5.3: Concordances of the semtag S2.5+ *Understanding*

It is worth noting that aspects of EI were also mentioned as part of other 'key' semtags. The semtag S7.1+: *In power* (LL= 243.72; LogRatio= 1.76) can be used to trace emotion and EI, for example. See Figure 5.4 below.

the low level so the more I try to control my stress the more I feel confident	4	More
yeah but at the same time I try to control that if my body needs rest I give m	5	More
to submission I 'll try my best to control my emotions and how I feel about th	6	More
elings you have I 'm being able to control your feelings in a way and then see	7	More
emotionally intelligent I only can control my emotions and on how to remove yo	8	More
d on how to remove you also how to control how people would react towards you	9	More
en I want to study I can have some control over this or as least that stress d	10	More
the time is mine everything I can control everything and it 's up to me what	11	More

Figure 5.4: Concordance line of the term 'control'

There are several instances where 'manage' and 'control' (i.e., words captured by the key semtag of 'power') were related to emotion (specifically, emotional management). The term *control* refers to students' acts of regulating, managing, or directing their emotions.

Mayer and Salovey (1997) believe that EI incorporates a mental capacity. In the Wmatrix4 tool, we can see that there is a semantic category labelled *Psychological Actions, States, and Processes*, which is worth investigating as well. It is represented by three key subcategories: '*Mental Objects: conceptual object*', '*Understanding*' and '*Thought, belief*' (See Figure 5.2). According to Goleman et al (2013), there is also an important social aspect of EI, which involves social awareness (empathy) and relationship management (including communication, influence, and inspirational leadership). This aspect can be captured using the semantic domain of *Social Actions, States, and Processes*. It also includes the following categories: *In power*, *Participating, Reciprocal, personal relationships: general* and *Helping*.

When examining data, it is important to take into account that certain words can be classified into multiple semantic categories, given that these words are categorised in USAS based on their frequency and prevalent usage patterns.

The candidate senses in lexicon entries are ranked in terms of frequency, even though at present such ranking is derived from limited or unverified sources such as frequency-based dictionaries, past tagging experience and intuition. For example, “green” referring to colour is generally more frequent than “green” meaning inexperienced.

(Rayson et al., 2004: 09)

In USAS, the word *green* is initially tagged as a colour, and secondarily as a label for someone who is unintelligent. Therefore, it is important to examine the context in which certain words are used in order to understand their intended meaning. Archer and Lansley (2015: 11) opined that “Wmatrix is not always as context-sensitive as it might be – not least because it normally assigns the first semtag in a string to a word, when that word has more than one semantic meaning”. Therefore, it is necessary to explore additional categories within the data set being studied, such as the 7th ‘key’ semtag, *Cause and Effect* (which has a LL=244.49 and LogRatio=1.79), as it contains one of the most significant terms in this study: ‘motivation’. Because of the aforementioned reason, this word is classified here under A2.2 (*Cause & effect: connection*) and then under X5.2+ (*Interested/excited/ energetic*). The following Figure 5.5 demonstrates this point further.

motivate	VV0	A2.2 X5.2+
motivated	JJ	A2.2 X5.2+
motivating	JJ	A2.2 X5.2+
motivating	NN1	A2.2 X5.2+
motivation	NN1	A2.2 X5.2+
motivational	JJ	A2.2 X5.2+

Figure 5.5: USAS lexicon for ‘motivat’

The lexical item *motivated* as shown in Figure 5.5 is tagged under A2.2 then under X5.2+. Figure 5.6 below shows a fragment of the 29 times it occurred in the students’ data set.

in the office and see people they motivate me and I motivated people so it was hard with the Coviv-19 to do that this nish my supervisory meeting I feel like I 'm so much motivated to work harder to work more because someone is appreci blah blah blah so this way I 'm feeling okay I 'm so less anxious compared to last time , so I feel really motivated to work harder but after few hours two days three days or asking you and keeping an eye on you it keeps you motivated to carry on no , I have n't heard of it before being i think motivation is an important thing if you are not motivated and working but since this lack of communication I fel that motivation is everything I tried to keep myself motivated you wo n't do anything and also , it 's not I think th actually . When she said that actually I got really motivated by reminding myself all the time that it 's worth it belp me to improve so going back to your question that motivated because you know as PhD students whenever we send work d whatever feedback I get from her is just to get me motivated me and boosted me to keep working though sometimes we g that in a miserable situation so this is how I get motivated and push me forward so I can say that what she said ch feeling low why I 'm not doing much work why I 'm not motivated And he proposed even some solutions being a visual lea y put the external ahead of the internal I mean I am motivated finish that project but I keep losing that motivation

Figure 5.6: Concordances of motivated

When looking at the meaning in context, via concordances, we can see that it is more likely that *Motivated* functions as X5.2+ (Excited and energetic) rather than A2.2 (Cause and effect: connection). *Motivated* is used as a verb and an adjective in this context, and means to encourage and inspire and be encouraged and excited. See Section 5.2.3 for further analysis of the string *motivat**.

Table 5.1 below demonstrates the four major semantic fields that capture various keywords in relation to emotion and EI in the student's dataset. These domains have LL scores above the cut-off point of 6.63, and cover 13 out of the top 20 most overused semtags illustrated below.

Emotional actions, States & processes	Psychological actions, states & processes	Social Actions, States, and Processes	Cause & Effect
E1 (LL=512.25; LogRatio= 4.67) emotional (42), emotions (40), emotionally (23), emotion (10), feel (9), vibes (4), mood (4). E6- (LL=228.52; LogRatio=2.39) stress (31) anxious (17) anxiety (16) concerned (13) nervous (12) care (11) concerns (10) under-pressure (7) worry (4) concerning (3) stress (3) stressful (3)	X2.5+ (LL= 191.46; LogRatio= 2.31) understand (38) realise (25) understanding (21) understands (10) empathy (7) understood (4) realising (3) figure-out (2) realised (2) get the point (2) emphasise (2) realise (2) make sense (2) sympathy (1) see(1) realised (1) realised (1) sympathising (1) got it (1) make sense (1) realises (1). X2.1 (LL= 190.64; LogRatio= 0.99)	S7.1+ (LL= 285.52; LogRatio=1.59) manage (16) control (11) pressure (4) force (3) influence (3) managed (1) putting-pressure-on (1) ordering (1) insisted (1) controlled (1) insist (1) controlling (1) powerful (1) puts-pressure-on (1) put-pressure-on (1). S3.1 (LL= 188.20; LogRatio=2.23) friends (11) relationships (4)	A2.2 (LL=244.49; LogRatio= 1.79) motivated (29) motivation (27) impact (13) motivates (12) motivate (9) motivating (5) influence (7) depends (4) affect (17) affects (2) influences (1) impacts (1) triggered (1) affected (1)

caring (2) worried (2) bothered (1) trouble (1) insecure (1) anxieties (1) worrying (1) concern (1) worries (1) stresses-out (1) stressing -out (1) stressed-out (1) uneasy E4.1- (LL= 103.69; LogRatio= 2.25) sad (20) depressed (16) depression (4) suffering (4) crying (4) cry (3) upset (3) suffered (3) regret (3) depressing (2) embarrassed (2) homesick (2) regretting (1) in state (1) unhappy (1) sadness (1) miserable (1) cried (1).	feel (145) feeling (71) felt (32) believe (17) feelings (13) trust (12) consider (8) feels (4) take personally (3) reconsider (3) (2) considering (2) consideration (2) belief (1) attitude (1) take-positively (1) mentality (1) take into consideration (1) wondering (1) takes actually (1) considers(1) considered (1)	friendship (3) friendships (2) Get-on (1). S8+ (LL= 171.14; LogRatio= 1.54). help (39) helpful (35) support (35) helped (27) supportive (12) helps (10) guidance (9) constructive (6) guiding (5) guide (4) supported (3) inspired (3) boosted (3) care (2) encouraged (2) guided (2) boost (2) back-me-up (1) encouragement (1) supports (1) inspire (1) inspirational (1) keep-you-going (1) boosts (1) keep-me-going (1)	
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Table 5.1: Top key semtags in students' dataset in relation to emotion and EI

Laying out what each semantic field collects in Table 5.1 helps in the discovery of connections between these various fields, all of which fall into the aspects that constitute EI. I have used Table 5.1 to trace certain key semtags and keywords, including *understanding*, *management*, *motivation*, *support*, *trust* and *care*, and negative and positive emotions. In essence, the data captured above is explored in relation to three major categories, these being emotions (positive and negative), emotional understanding and relationship management (see Chapter 4, for a discussion of their relevance to EI).

5.1.3 Emotions expressed in the students' dataset

9 semtags captured the linguistic features of emotion at a cut-off point of LL6.63. See Figure 5.7 below.

		Item	O1	%1	O2	%2	LL	LogRatio	
1	List1	Broad-list Concordance E1	132	0.36	137	0.01 +	512.25	4.67	Emotional Actions, States And Processes
2	List1	Broad-list Concordance E6-	145	0.39	733	0.07 +	228.52	2.39	Worry
3	List1	Broad-list Concordance E4.1-	72	0.19	400	0.04 +	103.69	2.25	Sad
4	List1	Broad-list Concordance E6+	31	0.08	292	0.03 +	22.88	1.49	Confident
5	List1	Broad-list Concordance E2+	121	0.33	2255	0.23 +	12.83	0.51	Like
6	List1	Broad-list Concordance E3-	18	0.05	959	0.10 -	10.90	-1.01	Violent/Angry
7	List1	Broad-list Concordance E4.2-	10	0.03	88	0.01 +	8.21	1.59	Discontent
8	List1	Broad-list Concordance E4.1+	16	0.04	782	0.08 -	7.21	-0.88	Happy
9	List1	Broad-list Concordance E3--	1	0.00	0	0.00 +	6.63	5.73	Violent/Angry

Figure 5.7: Top key semtags of Emotion at cut-off point 6.63

Students used a variety of linguistic items to express their feelings during the PhD journey. Table 5.2 below classifies these semantic fields into positive and negative emotions.

Positive emotions	Negative emotions
E6+: confident (10) confidence (9) at-ease (6) reassuring (3) faith (1) reassure (1) trust (1).	E6-: stress (31) anxious (17) anxiety (16) concerned (13) stressful (13) nervous (12) care (11) concerns (10) under-pressure (7) worry (4) concerning (3) stressed (3) caring (2) worried (2) bothered (1) trouble (1) anxieties (1) worrying (1) concern (1) worries (1) stresses-out (1) stressed-out (1) uneasy (1)
E2+: like (11) appreciate (15) go-for (6) love (5) appreciating (4) enjoy (3) liked (3) appreciated (2) enjoying (1) appreciates (1) loving (1) was-into (1) likes (1) loves (1)	E4.1-: sad (20) depressed (16) depression (4) suffering (4) crying (4) cry (3) upset (3) suffered (3) regret (3) depressing (2) embarrassed (2) homesick (2) regretting (1) unhappy (1) sadness (1) miserable (1) cried (1)
E4.1+: happy (10) fun (4) relief (1) laughing (1)	E3-: angry (5) attack (1) annoying (2) annoyed (1) torture (1) irritated (1)
	E4.2-: frustrated (4) disappointing (2) frustrating (2) disappointed (1) disappoint (1)
	E3--: angrier (1)

Table 5.2: Emotion expressions in students' data set

The most overused semantic fields in the students' data set that have positive emotion association are respectively *Confident*, *Like*, and *Happy*. The overused domains with negative emotion association are *Worry*, *Sad*, *Violent/Angry* and *Discontent*. These

semantic fields are all statistically significant in that they are all above the cut-off point of LL6.63. Notice that negative emotions are mentioned more than positive emotions when discussing students' experiences during their PhD journeys. This reflects how the PhD journey is an emotionally charged trajectory, and is in line with studies that have yielded comparable results (Wang and Li, 2011; Ismail et al., 2013; Wisker et al., 2010; Je and Ct, 2019).

When looking at the context in which these negative emotional items occur, it becomes obvious that some appear to be neutralised in context and/or have a more positive connotation. Consider, for instance, the following, where *anxious* is preceded by *less* (see example1).

- 1) when telling me 'Well done', I was really happy. That made me feel less anxious compared to last time.

Pressure (x17) has positive connotations on 7 occasions out of the 17 instances this word occurred in student's data set. This is when *pressure* is captured with the expression *I work under* (x7). See examples below.

- 2) I work under pressure, I 'll tell you what, so whenever I 'm having so much time let 's say if they [supervisors] give me one month or 15 days to work, I don't work until the last few days ... but I think it doesn't work this way with PhD. So, you need to work every day ... yeah like I 'm not considering myself as a hard worker. It's just like as I told you whenever I 'm approaching a milestone I do work more.
- 3) I made a writing plan and suggested a deadline to send my work, but I didn't write anything. Then I told him [supervisor] that I didn't progress ... I thought that if I tell my supervisor about the deadline, he will pressure me ... but he didn't. When I sent him that work, he ignored me; for example, in my last meeting I told him I didn't do anything as planned but I didn't receive follow up and I didn't progress, he told me 'It's Covid'. So, this way of reassuring me and, you know, someone is not doing progress ... it doesn't match.
- 4) my supervisor understands my emotions and understand my mental state, so she doesn't put so much pressure on me when I am not able to

manage that stress.

While negative pressure in this context was described by students to have a demotivating effect when they are unable to handle that pressure (see example 4), pressure is also perceived as having a motivating effect which helps in increasing productivity (see examples 1, 2, and 3). In example 3, when the student did not receive a certain level of pressure from her supervisor as she expected, she perceived a mismatch between her needs and her supervisors' response(s). This signals that pressure in this context can be perceived positively and is appreciated by (some) students. This aspect will be further discussed in the supervisors' influence on students and power relationship (see Section 5.1.5).

Care (x11) which is also classified under negative emotion (above) can also have positive connotations in this context. It refers to expressing empathy in 5 instances, and as apathy or indifference when it occurred in combination with *don't/doesn't/didn't care* in 6 instances.

- 5) They [supervisors] always tend to emphasise on both sides ... and they make you feel like they really care about what you said no matter how minor it is. They tend to listen and appreciate every idea I give them.
- 6) When you feel that there is someone there to care about you and understands to give you time not to work ... that's ... that person considers me as a human.

Students used a variety of linguistic items to describe their emotional states throughout their journeys. This calls for looking at what and why some of these emotions occurred. I could achieve this by looking at the concordance lines and the context surrounding the occurrences of keywords such as *stress*, which occurred 31 times and is marked as the most key in the semtag *E6-*. *Stress* is also a keyword in its own right, with an LL=120.05 and LogRatio= 6.67. Figure 5.8 below shows some concordance lines of this keyword.

his is the only thing I could do to overcome	stress	and anxiety and actually I felt like it added	1 More	Full
and actually I felt like it added more to my	stress	and anxiety if you feel like you 're not adva	2 More	Full
good like yeah they were just increasing my	stress	anxiety and depression my DoS was harsh with	3 More	Full
mber saying if you ever feel not good unwell	stress	you can text me and I will be happy to help t	4 More	Full
would say there were a bit of you know like	stress	on my part because I was n't used to the Univ	5 More	Full
ut at the same time it puts another layer of	stress	because I always feel the need to work more s	6 More	Full
works to be honest but I mean at least that	stress	that I was suffering during July and August i	7 More	Full
ieces of paper and to be honest I had in head	stress	like that or like that one in my whole life e	8 More	Full
of things I needed to deal with the biggest	stress	Was when I did n't find or I could n't have a	9 More	Full
I 'm not stressed at all but when I think of	stress	I think of it that way okay the worst-case sc	10 More	Full
y it not it 's fine and what I think also about	stress	I feel the more I get stressed the more my wo	11 More	Full
he low level so the more I try to control my	stress	the more I feel confident about my work To be	12 More	Full
ently have been suffering from my anxiety or	stress	I 've been hospitalised I 've had migraine at	13 More	Full
rrible and all I felt this is because of the	stress	yeah because of stress I spent a week doing n	14 More	Full
his is because of the stress yeah because of	stress	I spent a week doing nothing but just staying	15 More	Full

Figure 5.8: Concordances of 'stress'

When assessing the context in which the words *stress*, *stressed*, *stressful* were mentioned, various causes led to stress according to students: Uncertainty at the beginning of their PhD journey, supervisors being 'harsh' when providing feedback, unfamiliarity with the UK academic system, being new to the UK culture and setting, supervisors' exerting a degree of pressure to have work done on time, students' drive to work harder, Covid-19 outbreak news, and being away from home during that time. See, for instance, example 7) below.

- 7) the meetings were not good, like, yeah, they were just increasing my stress, anxiety, and depression. My Director of Studies was harsh with me when I used not to discuss with them... I remember twice she was so harsh she said things that put me down like 'how come that you are a PhD student.'

The student described the supervisor in terms of their behaviour and language. The supervisor was described as "harsh" and as having "put [the student] down." The supervisor's language appears critical and dismissive of the student's ability to be a successful PhD student. Furthermore, the phrase "how come you're a PhD student" is especially damaging to the student's self-esteem because it implies that the supervisor does not believe in the student's ability to succeed. The student reports that meetings with the supervisor were unpleasant and contributed to an increase in stress, anxiety, and depression. This suggests that the supervisor's behaviour may be contributing to the student's emotional difficulties during their PhD journey. The supervisor's reported language in this excerpt appears to be unsupportive and potentially harmful to the student's emotional well-being. This is in line with a study by Jairam and Kahl (2012)

in which doctoral students reported that inappropriate communication had a significant (mainly negative) impact on them.

The analysis of the concordance line of stress indicates that it was found to impact students' academic performance and to also have an influence on their physical health such that it caused a lack of sleep and migraine in some instances. See extracts below.

- 8) I think stress influences my results in a way because now even if I mean I got stressed, it's way less than the three first months of the PhD. Trust me. And yeah. I mean I feel bit of pressure. I had, like, recently I have been suffering from my anxiety or stress. I 've been hospitalised. I 've had migraine attacks ... Now, I have 3 times of migraine attacks that I never suffered during my whole life.
- 9) I think ... also about stress, I feel the more I get stressed, the more my work will be the low level.
- 10) because of stress I spent a week doing nothing but just staying in my room in darkness.

When confronted with stressful and unexpected situations, students frequently used linguistic items such as *concerns*, *nervous*, *anxious* and *anxiety*, *stress* and *stressful* to describe their emotional states. For example, passing a milestone, the unexpected pandemic period, and the first meetings with their supervisors make them feel stressed and anxious. See examples 11)- 16) below.

- 11) I was really stressed and really anxious and then this stress turned into depression after a while ... and I wasn't aware I mean I wasn't aware it's because of the RD2 [research milestone].
- 12) I remember the first meeting even the other meetings, ... I was very anxious very shy ... and I even like when I say something I said it I said it like in a quiet voice.
- 13) since the Covid affects ...for example you're afraid from the disease, you are afraid ... it increases my social anxiety. You are also concerned about the safety of your family back home. You are overreacting overthinking and the last thing that you think about is your study.
- 14) it is very important not only for PhD but every aspect in life to be in a good psychological state. If I didn't work on my wellbeing, with that stress, I would 've

withdrawn my PhD. I raised my problems to university and supervisors... and I had many sessions where they shifted my thinking. Now I know how to manage my emotions, so it is very important to seek help from others because this caused me physical problems and eating disorder.

15) at the start, I would say there were a bit of ... you know like stress on my part because I wasn't used to the University system and the writing or the academic style I am required to manifest at PhD level.

16) I was so nervous about what he [supervisor] will say about my research ideas.

When looking at the concordance lines of negative emotions PhD students experienced during their journey (see Table 5.2) and the examples mentioned above, the findings imply that the students' comfort was impacted due to many factors mainly: Lack of awareness of their university protocol and concerns about their supervisors' expectations about them, and a (perceived) lack of supportive supervisors. Being away from home during the Covid-19 pandemic was also a cause of heightened stress among students.

Some of the examples in this semantic field reflect supervisors' expressions of empathy via showing care about their students' psychological states.

17) she [supervisor] gave me her phone number saying: 'if you ever feel not good, unwell, or stressed, you can text me and I will be happy to help.'

18) I told her that I'm not feeling okay she seems to be concerned she shows that ... she shows she's concerned. I don't hesitate to share with her my concerns.

Examples 17) and 18) demonstrate the supervisors' approachability and empathy. In example 17), the supervisor asks the student to contact her supervisor when she needs assistance, and she provided a phone number to make the supervisory relationship less formal and the supervisor more approachable. In example 18, the student appreciates when her supervisor demonstrates empathy by saying she does not hesitate to share her concerns with her supervisor because she knows her supervisor is a person who cares about her student and shows that.

Students also used some figurative expressions to signal strong negative emotions such as *black*, *pressure cooker*, *painful*, *paralysed*, *empty*. See examples 19)-22) below.

- 19) I was frustrated because ... for example, I changed my topic. I chose a new topic ... I had to read from the beginning. Your supervisor is ignoring you ... I thought that he will give me feedback, but he didn't give me feedback... I felt like it was black. I felt negative emotion; it's the beginning of your PhD and you face all these struggles... it was overwhelming this was multiplied as if I'm a pressure cooker.
- 20) [...] they tend to give equivalence like "this is good point" but then they move to the other one "this is a good point, but also it needs to be more illustrated" or "have you thought about this part or this idea?" . So yeah, it is constructive. They're always for the good. I appreciate how they make that balance between what good and bad I have done. This makes it less painful.
- 21) in my first year, I didn't have the will to do anything. I felt paralysed even when trying to study, I didn't have the ability. But now, after my anxiety is reduced, things get much better. Now I 'm not neglecting my problems instead I speak them out.
- 22) in my PhD journey it [emotion]'s like it's my worst enemy. I couldn't do anything ...I 'm feeling I'm a different person, because for example sometimes I don't feel anything. I don't know whether I'm sad whether I'm alone, you know, empty bottle or empty shell.

When the supervisory relationship did not go well, such as when the students felt they were not receiving satisfactory support or when their supervisor did not reply to their emails, students became frustrated. Notice in examples 19)-22) the use of figurative expressions such as *pressure cooker*, *empty shell*, *empty bottle*, *black*, *painful*, *felt paralysed* to refer to a negative emotion. The students expressed their psychological state of a mixture of negative emotions.

The metaphor *pressure cooker* in example 19) implies that the student's PhD journey was filled with intense and high-pressure situations. It suggests that the student experienced extreme stress as if they were trapped inside a tightly sealed container

that amplified the heat and pressure. This indicates that they felt a constant sense of urgency and time constraints while conducting their research with their supervisor ignoring them. The expressions *Empty bottle* and *Empty shell* in example 22) suggests the student experienced emotional exhaustion or depletion during their PhD journey. It indicates a sense of emptiness or hollowness, where their passion or enthusiasm may have waned over time as a result of the difficulties and challenges they faced. This could be used to express their dissatisfaction or a disconnection from their original motivations.

One of the students used the word *black* in example 19). When searching the lexicon *black* in USAS, the word black has various semtag annotations. See Figure 5.9 below.

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 Search term: 'black'.  You are viewing the USAS lexicon.			<table border="1"> <thead> <tr> <th></th><th></th><th></th><th></th></tr> </thead> <tbody> <tr> <td>anti-black</td><td>JJ</td><td>G1.2</td><td>G2.1</td></tr> <tr> <td>black</td><td>JJ</td><td>04.3</td><td>G2.2- A5.1- E4.1- S5+</td></tr> <tr> <td>black</td><td>NN1</td><td>04.3</td><td>S5+/S2mf F2%</td></tr> <tr> <td>black</td><td>VV0</td><td>04.3</td><td>G2.2-</td></tr> <tr> <td>black-and-white</td><td>JJ</td><td>04.3</td><td></td></tr> <tr> <td>black-edged</td><td>JJ</td><td>04.1</td><td></td></tr> <tr> <td>black-leathered</td><td>JJ</td><td>01.1</td><td></td></tr> <tr> <td>black-market</td><td>JJ</td><td>I2.2/G2.2-</td><td></td></tr> <tr> <td>black-out</td><td>NN1</td><td>B2-</td><td>G3%</td></tr> <tr> <td>black-tie</td><td>JJ</td><td>A11.1+</td><td></td></tr> <tr> <td>blackball</td><td>VV0</td><td>A1.8-</td><td></td></tr> <tr> <td>blackballing</td><td>VVG</td><td>A1.8-</td><td></td></tr> <tr> <td>blackberries</td><td>NN2</td><td>F1</td><td>L3</td></tr> <tr> <td>blackberry</td><td>NN1</td><td>F1</td><td>L3</td></tr> <tr> <td>blackbird</td><td>NN1</td><td>L2</td><td></td></tr> <tr> <td>blackboard</td><td>NN1</td><td>Q1.2</td><td></td></tr> <tr> <td>blackcurrant</td><td>NN1</td><td>F1</td><td>F2 L3</td></tr> <tr> <td>blackcurrants</td><td>NN2</td><td>F1</td><td>L3</td></tr> <tr> <td>blackcurrent</td><td>NN1</td><td>F1</td><td>L3</td></tr> <tr> <td>blackcurrents</td><td>NN2</td><td>F1</td><td>L3</td></tr> <tr> <td>blacked</td><td>JJ</td><td>04.3</td><td>G2.2-</td></tr> <tr> <td>blacked-out</td><td>JJ</td><td>A10-</td><td>04.3</td></tr> <tr> <td>blacken</td><td>VV0</td><td>04.3</td><td>Q2.2/G2.2-</td></tr> <tr> <td>blacken</td><td>VVI</td><td>04.3</td><td>Q2.2/G2.2-</td></tr> <tr> <td>blackened</td><td>JJ</td><td>04.3</td><td>04.2-</td></tr> <tr> <td>blackest</td><td>JJT</td><td>04.3</td><td>E4.1---</td></tr> <tr> <td>blackguard</td><td>NN1</td><td>G2.1-/S2mf</td><td></td></tr> <tr> <td>blackhead</td><td>NN1</td><td>82</td><td></td></tr> </tbody> </table>					anti-black	JJ	G1.2	G2.1	black	JJ	04.3	G2.2- A5.1- E4.1- S5+	black	NN1	04.3	S5+/S2mf F2%	black	VV0	04.3	G2.2-	black-and-white	JJ	04.3		black-edged	JJ	04.1		black-leathered	JJ	01.1		black-market	JJ	I2.2/G2.2-		black-out	NN1	B2-	G3%	black-tie	JJ	A11.1+		blackball	VV0	A1.8-		blackballing	VVG	A1.8-		blackberries	NN2	F1	L3	blackberry	NN1	F1	L3	blackbird	NN1	L2		blackboard	NN1	Q1.2		blackcurrant	NN1	F1	F2 L3	blackcurrants	NN2	F1	L3	blackcurrent	NN1	F1	L3	blackcurrents	NN2	F1	L3	blacked	JJ	04.3	G2.2-	blacked-out	JJ	A10-	04.3	blacken	VV0	04.3	Q2.2/G2.2-	blacken	VVI	04.3	Q2.2/G2.2-	blackened	JJ	04.3	04.2-	blackest	JJT	04.3	E4.1---	blackguard	NN1	G2.1-/S2mf		blackhead	NN1	82	
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Figure 5.9: 'black' lexical connotations

Black as an adjective is annotated as follows.

- 1- O4.3 (Colour and colour patterns)
- 2- G2.2- (Unethical)
- 3- A5.1- (Evaluation: Bad)
- 4- E4.1- (Sad)
- 5- S5+ (Belonging to a group)

The word *black* in example 23) is used to denote the 4th categorisation of this word in USAS. It refers to sadness and how the student's experience is emotionally difficult.

Furthermore, the word *painful* is being used metaphorically to describe emotional pain rather than physical pain. According to Sophia Lee (2018), in emotional situations, people often use metaphors instead of literal emotional terms. This is to further enrich emotion processing and experience (Müller et al., 2021). In the context of the abovementioned excerpts, when students describe their PhD experience, they used metaphors to express strong emotions.

In summary, the semantic field of *Emotion* along with the figurative expressions show the various linguistic features used to signify different emotions, when students are describing their emotional states. These findings suggest that completing a PhD is an emotionally charged journey (see examples 19)-22)), which can put stress on the supervisory relationship as shown in the abovementioned excerpts (see especially examples 3 and 7). The analysis of the linguistic features of emotion used by students reveals a use of a variety of nouns and adjectives alongside metaphorical expressions (see examples 3), 8)-16) and 19)-22)). An analysis of the concordances for these emotions reveals that these emotions have a significant impact on students' state of mind, physical health and cognitive performance and abilities to carry on their studies (see examples 8)-10)). When looking at the concordances of some emotions that were annotated as negative, some of the examples reveal that these negative emotions have positive connotations when they are looked up contextually. For instance, *care* and *concerned* in this context demonstrate aspects of empathy, while *pressure* has a motivational effect on students (see examples 2), 5) and 6)).

The next section will look at how empathy is discussed and manifested in this dataset.

5.1.4 Empathy

There were several semantic fields involved in representing the theme of emotional support, which was, in turn, characterised by two subthemes: 'Empathy' and 'Emotional management'. Table 5.3 illustrates the examples relative to Empathy, which were found in key semantic tags (For more details about USAS semantic categories, please check <http://ucrel.lancs.ac.uk/usas>).

Semantic tags	Examples
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X2.5+: Understanding (LL= 191.46 ; LogRatio= 2.31)	I'm abroad for more than a year away from family. So, [knowing] this made them empathise with me more.
S1.2.1+: Informal/ friendly (LL= 46.22 ; LogRatio= 2.90)	my supervisors are really nice in terms of asking about how I'm doing, in terms of caring about my wellbeing.
E2+: like (LL= 12.83 ; LogRatio= 0.51)	that person considers me as a human, and takes my case into consideration this makes you feel less stressed. when you feel that there is someone there to care about you and understands to give you time not to work ... that person considers me as a human.

Table 5.3: Key semantic fields relative to Empathy and Approachability

Understanding (X2.5+) is the 11th top semantic domain with an LL value of 191.46 and LogRatio of 2.31. This semantic field contains keywords such as *understand/s, realise, understanding, empathy, empathise*. See Figure 5.10 below.

and she went through the same thing and she should be more understanding to react to that thing they do suggest solutions find out or figure out related to this but it took me some time because I could n't understand our life it 's called emotional intelligence this is what my understanding kind and concerning my DoS they were both helpful and very a lot all not a lot they said yeah so but after like that I realised so I started looking for and generating ideas myself , and I realized before when I see meetings like nightmare my DoS now is more understanding use this changed my attitude towards DoS my DoS is now more understanding meeting and work in a rush but they still are supportive and understanding	. well , what I do appreciate ... OK ... So , I used to be my what to do but for me it 's just my overthinking sometimes that I presume this term well it 's not my area of study I do believe it 's related to is that right it 's kind of you said emotional intelligence you have to understand and they were all the time coming up with solutions and they were aware that things that they were proposing for me they will not like good idea that I do n't have to follow them each time so I started being critical and now I can even meet them together It 's good yes sometimes like for especially when they give importance to my psychological problems I can they advise me and give constructive feedback positively of course espec
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Figure 5.10: A fragment of X2.5+ concordance line

Understand (verb) and *understanding* (noun) refer primarily to the aspect of knowing, comprehension, and capacity to assess a given situation or issue. It is “the knowledge and ability to judge a particular situation or subject” (Merriam Webster). The semtag *Understanding* (x5.2+) is made up of lexical items which are keywords in their own right, such as *understand, understanding, empathy, empathise* (see Table 5.1 for the whole list and the concordances of each item). Table 5.4 below shows the LL and LogRatio of some keywords in relation to empathy.

Keywords	Loglikelihood	LogRatio
Understanding (21)	57.95	3.54
Understand (38)	57.67	2.33
Understands (10)	47.56	5.73
Empathy (7)	40.44	7.54
Empathise (2)	13.26	6.73

Table 5.4: LL and LogRatio of Empathy related keywords

The lexical term *understanding* appears 21 times, with 17 of those instances being in the form of an adjective relating to empathic awareness. See Examples 23)-24) below.

23) knowing that they [supervisors] are now aware of my situation, I can discuss the little issue I face, especially that she gave me her phone number saying if you ever feel not good, unwell, or stressed, you can text me and I will be happy to help. That was great because this changed my attitude towards my DoS [Director of Studies]. My DoS is now more understanding, especially when she gives importance to my psychological problems. I can see that they feel me and suggest things to solve my issues.

24) meetings every two weeks means it puts pressure on me in the sense that I need to have something to tell her [supervisor] or something to report to her and sometimes I don't have... you know sometimes I just don't. I was so happy that my supervisor is very understanding ... As I told you, she understands the way I work. She didn't put pressure on me to do that, so she gave me that flexibility; she said: "you know what? just contact me whenever you want, and we will meet anytime you want".

In these excerpts, empathy was detected in supervisor's reactions and behaviours towards students' concerns. Students notice this aspect when their supervisors take active interest in their concerns, offer a phone number to contact the supervisor if students feel stressed. Supervisors' emotional understanding and empathy was featured by being flexible and accommodating in the supervisory patterns to suit the student's emotional state, alleviate the pressure and offer support that corresponds to their needs.

Verbs like *understand* and *empathise*, adjectives like *understanding*, as well as nouns such as *empathy*, *sympathy*, and *sympathising*, were also significantly used and are

shown to communicate supervisors' empathy. Examples 25)-30) below demonstrate the uses of these lexical items.

- 25) my supervisor must have empathy; he needs to understand my ups and downs ... my emotions throughout my PhD because if a supervisor doesn't care about how you feel ... because after all, you are human being; you cannot separate your emotion from your brain.
- 26) We're all PhD students, and she [supervisor] went through the same thing, and she should be more understanding.
- 27) my supervisor understands more the academic parts of it. So, she's been a PhD student, she did her doctorate as well. So, she understands the struggle she can support me in ways maybe my family can't support me, because my family are not academics; they don't understand the process of PhD.
- 28) my supervisors are really nice in terms of asking about how I'm doing...in terms of caring about my wellbeing. And knowing that I'm abroad for more than a year away from family, this made them empathise with me more, and it was something that turned out to be really good in terms of realising how my supervisors are nice, and in terms of realising how good I can do and move forward in my research.
- 29) I think it's really important that my supervisor understands my emotions and understands my mental state so she does not put so much pressure on me when I am not able to manage that stress, or just make me feel even worse than I 'm already. So, if she understands me... I think she can support me, and she can make it better. And I think my supervisor is emotionally intelligent because I never felt during our supervision meetings, or even since we started, that she kind of made me feel worse.
- 30) I told him [supervisor] I didn't do anything as I did a plan, but I didn't receive follow up, and I didn't progress. He told me 'It's Covid!' So, this way of reassuring and you know someone is not doing progress... it doesn't match... he thought it's Covid I don't want to pressure her mental health ... So, I think that sympathising with people is good in emotional intelligence, but you need to know when to show that ... For me it [supervision] is not about emotional intelligence, it's about academically competent and professional.

We can observe from the above excerpts that students valued their supervisors'

empathic responses. They used the modality-strong expressions such as 'must have empathy', 'should be more understanding' and 'it's really important that my supervisor understands my emotions' in extracts 25), 26) and 29), thereby signalling that they had actually expressed their need for such considerateness. In this context, the modal verb *must* is used to express a strong obligation and necessity of supervisors' empathy, while *should* is used to express a weaker obligation of empathy which is still desirable by students. Students expect to receive empathy given their assumption that their supervisors are more aware of academic struggles than anybody else in their lives, and that having gone through the PhD journey themselves, they are in a position where they can be empathetic with their students (see extracts 26)-27)).

In Example 30), the student expresses her opinion about the relationship between EI and supervision. When the supervisor told the student "It's Covid", it implies that her lack of progress is due to the pandemic and not any shortcoming on her part. When the student said "this way of reassuring" implies that she disagrees with her supervisor's way of managing her progress. In this example, the student presupposes that supervision should be focused on academic support rather than emotional support. She sees that the supervisor's empathy is being misplaced in the sense that showing understanding without acting on it to assist her was problematic. This student stated that empathy alone is not what she expected from her supervisor because she expected proactive behaviour such as providing feedback and guidance as negative emotions are triggered by her supervisor's neglect and lack of guidance.

Another lexical item referring to supervisors' empathy through taking their students' emotions, needs, or opinions into account was *consider*. See Example 31) below.

- 31) that person considers me as a human and takes my case into consideration. This makes you feel less stressed. Once you know your supervisor gives you time to relax, [supervisor] makes you feel at ease and you don't have to do it as quick as possible ... take the time you are just human being.

In this excerpt, the student emphasises the importance of their supervisor considering them as human beings and taking their individual circumstances into account. The word "considers" implies that the supervisor (intentionally) accounts for the student's needs, emotions, and limitations when supervising them. This consideration is found

to reduce the student's stress levels because she feels less pressure to rush through her work and can take the necessary time to relax. The expression "you are just a human being" emphasises the student's desire to be treated as a human being rather than a machine whose sole purpose is to achieve high performance. This excerpt's overall function is to emphasise the importance of supervisors demonstrating empathy and understanding towards their students in order to create a more supportive and less stressful learning environment. Furthermore, the phrase "makes you feel" in this context refers to the emotional impact of the supervisor's action or behaviour. It suggests that when a supervisor considers their student's emotions and their case, it can have a positive impact on the student's emotional well-being and reduce their stress levels. This emphasises the significance of emotional support and understanding in academic settings, especially given the demanding and stressful nature of the PhD trajectory. The phrase "makes you feel" also reflects the student's observation of the emotional impact of the supervisor's actions, emphasising the importance of empathy and emotional support in managing the emotions of others.

The word *makes* collocates with *feel* in this dataset. See Figure 5.11 below.



Figure 5.11: Collocation of the lexical terms *makes* and *feel*

The word 'feel' collocates 11 times with the expression *makes* and *made*. The emotion expressions captured in these instances are *unhappy*, *uncomfortable*, *comfortable*, *anxious*, *less motivated*, *less stressed*) are linked to the impact of the supervisor's feedback which incited both negative and positive emotions, indicating how supervisors' actions impact their students' emotional states (emotion management). See Examples 32) and 33) below.

32) last time when my 3rd supervisor ... when telling me "Well done", I was really

happy. That made me feel less anxious compared to last time.

33) I've been really sick ... she was really concerned ... she said: 'take it easy and once you're ready just email us'. She made me feel comfortable, you are human being in your PhD, and you need to take some time off.

In both of these extracts, the expression "made me feel" is used to indicate the effect of supervisors' actions on the student's emotional states. In extract 32), the student expressed the impact of receiving positive feedback from her supervisor. The use of "made me feel" suggests that this feedback had a direct and significant effect on the student's emotions, in this case, making them feel less anxious. The phrase "compared to last time" implies that the student had previously felt more anxious, and that the positive feedback had a particular impact in alleviating this anxiety. This is in line with several studies that found students appreciate supervisors who are considerate when providing feedback that positively influences their wellbeing and motivation to work and thus engage in a level of stress alleviation (Wang and Li, 2011; Ismail et al., 2013; Wisker et al., 2010). In extract 33), the student described the actions of their supervisor who took a caring and considerate approach when the student was unwell. The use of "made me feel" suggests that the supervisor's actions had a direct impact on the student's emotional state, making them feel more comfortable and at ease. The phrase "you are human being in your PhD, and you need to take some time off" further emphasises the supportive, empathetic tone of the supervisor's response, which signals EI interpersonal skills of empathy and emotion management (Mayer et al., 1997). These examples indicate how supervisors' responses and actions had an impact on their students' emotion(al state). The concept of managing students' emotions was portrayed highlighting instances where supervisors played a pivotal role of motivating, comforting, and praising their work (see, e.g., *made me feel less anxious, reassure me*).

Empathy is significantly prevalent in the semantic field of *Understanding*. Various linguistic features were used to imply supervisors' empathy in the students' data set. An examination of the concordance lines of the lexical items in this domain revealed the context in which empathy was observed and appreciated by students. Empathy was observed in PhD supervision through various forms. Active listening: this is when students describe their supervisors actively listening to their concerns and experiences through paying attention to what their students were saying, and showing they are

taking their concerns seriously (see examples 23)-24)). Students also valued their supervisors' appraisal and validation of their emotions (see examples 27), 29), 31) and 33)). Supervisors who were described as empathic were observed offering their contact number and asking their students to approach them with their concerns (see example 23)). Students also appreciate when their supervisors accommodate different styles of supervision to suit their needs as they experience different psychological states and/or through the creation of personalised research plans (see examples 24), 29) 31) and 33)). Overall, empathy in PhD supervision involves being attentive, supportive, and understanding of the student's experiences and needs throughout their research journey.

The next section will discuss the ways in which supervisors' behaviours had an impact on their students' emotions.

5.1.5 Supervisors' influence on their students' emotions

This section is interested in capturing social skills associated with EI namely emotional management and relationship management. Relationship management indications were signalled in the 6th, 7th and 15th key semtags which are respectively S7.1+: *In power* (LL=285.52; LogRatio=1.59), A2.2: *Cause and effect* (LL=244.49; LogRatio=1.79) and S8+: *Help* (LL=171.14; Log Ratio=1.54). Table 5.5 below shows the word frequencies of each key semtag.

Social Actions, States, and Processes	Cause & Effect
S7.1+: pressure (14) manage (1) force (3) influence (3) managed (1) putting-pressure-on (1) insisted (1) controlled (1) insist (1) controlling (1) powerful (1) puts-pressure-on (1) put-pressure-on (1). S8+: help (39) helpful (35) support (35) helped (27) supportive (12) helps (10) guidance (9) constructive (6) guiding (5) guide (4) supported (3) inspired (3) boosted (3) care (2) encouraged (2) guided (2) boost (2) back-me-up (1) encouragement (1) inspire (1)	A2.2: motivated (29) motivation (27) impact (13) motivates (12) motivate (9) motivating (5) influence (7) depends (4) affect (17) affects (2) influences (1) impacts (1) triggered (1) affected (1)

Table 5.5: Word frequencies in major semantic fields

When looking at what makes up each semtag, it seems that PhD students draw upon “(non-)powerful” language when describing their supervisory relationship (see especially the items captured under S7.1+). The words *manage*, *pressure*, *force*, and *influence* suggest a more authoritarian and potentially stressful relationship between the students and their supervisors. In contrast, the semtag S8+ shows more positive language, with words like *help*, *support*, *guidance*, *constructive*, and *inspired*. These words suggest a more collaborative and supportive relationship between the students and their supervisors. The semtag A2.2+ also focuses more on the impact of the supervisory relationship on the students, through words such as *motivated*, *motivation*, *impact*, *triggered* and *influence*. These words suggest that the students’ motivation and performance may be influenced by their relationship with their supervisors. Overall, Table 5.5 suggests that the language used by the PhD students to describe their supervisory relationship can be both positive and negative. However, it is worth looking more at the concordances of some of these lexical items and their collocations to see the context in which these words occur.

The semtag *In power: S7.1+* captures powerful words that indicate asymmetry in power between students and supervisors such as *manage*, *influence*, *pressure*. However, when looking at the context in which these words occur, much of the data indicate that this asymmetry seems to have a counterbalance due to “help” and “support” moves. (See for instance Examples 34)-35) below.

- 34) this is thankfully with the support of my supervisors because it's them who helped me to manage those emotions and be intelligent to make, you know, a life-work-study balance.
- 35) my supervisor is very understanding, as I told you, she understands the way I work. She didn't put pressure on me ... so she gave me that flexibility.
- 36) I can say that my first supervisor is not harsh; she's smooth in the way she addresses things. For example, if she is writing you feedback, she tells you 'Wow this is interesting' 'well reconsider this part' ... My director of studies is like: 'what is this?' for example 'I don't know where you're going with this', you know, these harsh comments. I think this is her way. This doesn't make her not emotionally intelligent, maybe she's not emotionally intelligent, but I believe that maybe she is. it is her way of being emotionally intelligent because it has a positive influence on me. I think she is emotionally intelligent. She's a really good, nice person. my

motivation from challenging myself receiving these harsh comments... when I get really harsh feedback, this makes me work harder.

The words *manage*, *motivation*, *influence*, and *pressure* have various meanings that reflect the different ways in which supervisors can use their power to interact with their students. Managing emotions and balancing work and life responsibilities are important skills that supervisors can help their students to develop. In this context, *manage* refers to the ability of the supervisor to provide guidance and support to their student in navigating the challenges of the PhD. This form of power is based on knowledge and experience, and it involves the supervisor taking an active role in helping their student succeed. While some forms of power involve active intervention, others involve restraint. *Pressure* in this context generally refers to the supervisor's ability to exert control over their student by setting expectations and deadlines. However, in Example 35), the supervisor is described as not putting pressure on the student, but instead providing flexibility. This is an example of the supervisor using their power in a more positive and supportive way. *Influence* (in example 36) refers to the ability of the supervisor to impact the emotional state and well-being of the student. A supervisor who is emotionally intelligent and uses this skill to positively influence their student is demonstrating a form of power that is based on empathy and understanding. The statement also suggests that both supervisors may have some level of EI, but they express it in different ways. The first supervisor is described as smooth in her communication and provides constructive feedback in a positive manner, which shows that she is aware of how her communication style can impact others' emotions. Her approach indicates that she understands how to provide feedback in a way that is not discouraging, which shows a high level of EI. On the other hand, the second supervisor's communication style is more straightforward. While this may come across as harsh, it appears that the student sees it as a challenge to improve, and that it motivates her to work harder. The student states that the second supervisor may also have EI, but her style is more confrontational and challenging, which the student appreciates. This suggests that EI can manifest in different ways, and that what works for one person may not work for another. From the student's perspective (in Example 36), both supervisors appear to have EI, but they express it differently in their communication styles.

The use of words *pressure*, *manage*, and *influence* highlight the importance of

understanding the different ways in which power can be exercised in academic contexts. Supervisors who use their power to positively influence, manage, and support their students can help create an environment that is conducive to learning and growth (Doloriert et al., 2012).

Supervisors' support was captured in the semantic domain *Helping*: S8+. Figure 5.12 below shows a fragment of the concordance lines for this domain.

ive they have to still push me to work which helped	me because I mean you always try to find a wa
th that comment and I would say like I said guidance	so these ideas that I did n't think about or
yeah and you see that comment so yeah it is constructive	it is always constructive and they tend to gi
ke this totally up you we 're just trying to help	you especially my DoS he says like I am just
t about this part or this idea so yeah it is constructive	they always for the good . I appreciate how t
s kind of I 'm stuck somewhere I need their help	otherwise I 'm gone so it 's I do n't know ho
t if I were in other circumstances but they helped	me a lot to overcome anxiety and they emphasi
she was replaced by another one he was very helpful	and kind and concerning my DoS they were both
id kind and concerning my DoS they were both helpful	and very understanding and they were all the
ea that I went home and they were very much supportive	and they were giving me suggestions whether t
I would not do it without my supervisors who back me up	whenever I 'm stuck or having an inquiry that
et in touch with my supervisor seeking their help	yeah socially speaking like I am a bit like I
udy he is very much knowledgeable and he can help	me sometimes find out some solutions my probl
fluence my productivity like he was so much supportive	and he is still so much supportive so he keep
so much supportive and he is still so much supportive	so he keeps asking whether I need something t

Figure 5.12: Concordances of S8+: Help

These lexical items above demonstrate the instances when students received guidance, support and encouragement from their supervisors throughout their PhD journeys, among which supervisors' emotional support was articulated (see Examples 37)-41) below).

- 37) The thing is that he [supervisor] gives and provides support like even when you're stuck with yourself, he said that to me: "never think that you are alone you have always to come back to your supervisor and tell them" because it's a psychological issue it's not like only academic; sometimes you feel stressed depressed... many things can affect your academic journey, and your supervisor should give you support.
- 38) They [supervisors] helped me a lot to overcome anxiety and they emphasised that I was doing a good job... As I said, they always tend to emphasise on both sides ... and they make you feel like they really care about what you said.
- 39) this is thankfully with the support of my supervisors because it's them who helped me to manage those emotions and be intelligent to make you know a life-work-study balance.
- 40) he [supervisor] answers my emails pretty much immediately, next

day maximum. This made me feel at ease when I have concerns.

41) They [supervisors] helped me a lot to overcome anxiety, and they emphasised that I was doing a good job. So, when I had that meeting ... before that ... I was so anxious and scared, but then, yeah, I felt really good about it after that.

It appears from students' observations that the supervisors are (perceived to be) emotionally intelligent. They are empathetic and supportive towards their students, recognising that academic struggles can be intertwined with personal and psychological issues. They also seem to be adept at providing constructive feedback and positive reinforcement, which can help to build students' confidence and reduce their anxiety. Supervisors also seem to be responsive and communicative, which can foster the sense of trust and openness in student-supervisor relationship. Overall, these examples reveal that the supervisory relationship is not only built on academic support, but also on personal and emotional support. Supervisors tend to assist their students' moods to help them carry out their work, and students turn to their supervisors seeking comfort and support when their stress impacts their work on their research.

One of the key characteristics of social skills under Goleman et al's (2013: 39) EI model is Developing others: bolstering others' abilities through feedback and guidance. The examples in Figure 5.12 above and the concordance lines for S8+ show two types of help: emotional support and intellectual support through the adoption of a language of encouragement, constructive and clear feedback, and (targeted) guidance. For Goleman et al (2013), meeting people's need(s) is an EI skill. In this case, guiding students towards a shared goal necessitates help and support at the intellectual and emotional level, which this semtag (*Help* S8+) captures in 191 occurrences. The semtag *Help* in this context is linked to many supervisory behaviours and communications, such as being clear and understanding, and considerate in providing feedback. Help was also observed when supervisors used positive and empathetic language (see Example 36)-38)).

The most frequent lexical items that constitute the key semtag A2.2: *Cause and Effect* are *motivated* (29 instances), followed by *motivation* (27 instances), *impact* (13

instances), *motivates* (12 instances) and *influence* (7 instances). These are also statistical keywords in their own right, in that they are all above the LL of 23 (*influence* LL=23,16). These keywords are often attributed to supervisors' motivating their students. Table 5. 5 indicates that the semtag S8+ *Help* also constitutes some lexical items referring to motivation such as *inspire*, *encourages* and *encouragement*. The concordance lines of these terms demonstrate that the causes for students' motivation are varied. See Examples 42)-46) below:

- 42) He [supervisor] keeps appreciating the work motivating you. Whenever I finish my supervisory meeting, I feel like I'm so much motivated to work harder, to work more because someone is appreciating my work someone is telling me your work is really fascinating so it gives me more energy to work.
- 43) In that discussion I had with them, they remind me how much I actually like what I'm doing, especially when they ask me questions I know the answers to. It's a topic that I chose, so I should really love it. So, they inspire me... they just remind me that I'm good at this topic that I chose, I want to read more.
- 44) Recently I received a review from my third supervisor on a work I sent saying 'wow. I 'm really impressed. Bravo'. I was so happy. In my case, I feel the need for such feedback and encouragement to push me to work and progress... and even my DoS sometimes encourages me; sometimes I feel like this topic is not good and I get bored, but when they tell me 'I like your project. I really enjoy reading your work' and so, this is so helpful.
- 45) I could realise that what I 'm doing makes sense. What I will be doing will be even greater, and whatever feedback I get from her is just to get me motivated and push me forward.
- 46) I am motivated by deadlines ... I like it when he gives me deadlines. Like 'I need you to send me 500 words by the end of this week', that works for me. Even though a lot of people don't work with deadlines, that's how I work, I work under pressure.

A significant number of examples reveal that supervisors' constructive feedback and positive language such as '*I'm really impressed*' and '*your work is really fascinating*',

are mostly what motivates the students. One of the EI skills that Goleman et al. (2013) mention with respect to relationship management is developing others. This entails bolstering others' abilities through constructive feedback and guidance (*ibid*: 39).

When tracking positive emotions, positive language was used by supervisors as reported by their students when saying: 1) "when telling me 'Well done' I was really happy. That made me feel less anxious", 2) "she wanted me to get things even better, so actually that boosted my motivation ... she really liked my work, and she kept giving me positive feedback: 'you're doing great'", 3) "they helped me a lot to overcome anxiety, and they emphasised that I was doing a good job". This highlights the importance of supervisors using positive language to express empathy and encouragement for their students. The use of the phrase "well done" by the supervisor not only made the student happy but also helped to reduce their anxiety. This shows how positive language can have a significant impact on managing emotions in others. Similarly, the supervisor's use of positive feedback like "you're doing great" not only boosted the student's motivation and self-esteem but also helped them perform better. The use of positive language created a supportive and encouraging environment for the student, which enhanced their performance and reduce their stress levels. The supervisors' emphasis on the student doing a good job helped to alleviate their anxiety and fear about meeting them. This highlights the importance of supervisors' appraisal and acknowledging their students' efforts, which can provide them with a sense of validation and help them feel more confident about their work. These excerpts demonstrate how positive language can be a powerful tool for supervisors in manifesting EI skills through expressing empathy, providing support, and managing the emotions of their students effectively.

When looking at the collocations, the lexical item *motivation* statistically collocates with *important*. Figure 5.13 below captures *motivation* collocations and the LL value of each collocation which are all notably above the cut-off point of LL6.63.

Save this table as a [tab-delimited file](#) 

Change statistic: Log-Likelihood **Search this list:** Enter the word you wish to search for here: motivat (you can also search for part of a word; enter '.' or leave blank for complete list)

	Log-Likelihood	T-score	Collocation
1	54.91	3.61	I motivated
2	29.73	1.73	external motivation
3	25.92	1.97	motivation important
4	14.84	2.32	motivated I
5	12.21	1.81	motivation really

Figure 5.13: Collocates of 'motivat'

The collocation of *motivation* and the adjective *important* in this context suggests that motivation is a key factor in supervision. Their Loglikelihood score of 25.92 indicates that the co-occurrence of these words is significant and is (extremely) unlikely to occur by chance. Figure 5.14 below demonstrates some examples of this collocation.

to get I think this is this is an important thing part of this play care to wo 13 More Full
s I told you motivation is really important and every student needs to have a 14 More Full
o knowing this actually is really important sometimes shopping for girls is re 15 More Full
ources new ideas so motivation is important but what is important is to know t 16 More Full
tivation is important but what is important is to know the source of motivatio 17 More Full
he way I see them they are really important the four of them if you 're talkin 18 More Full
r supervisor with which is really important as I told you if I was that type o 19 More Full
h my supervisor so this is really important to be aware of the social aspect t 20 More Full
friends motivation is also really important as I told you knowing what motivat 21 More Full

Figure 5.14: Motivation and Important collocations

Tracing the context in which these collocations occur indicates that students value a supervisory relationship that provides them with the necessary motivation to succeed. The role of supervisors in motivating students is particularly important in a research setting where students are often required to work independently and stay motivated over a long period of time.

Motivation and the ability to manage other's emotions - a key aspect of EI - are related in the students' dataset in various ways as shown in the abovementioned examples 42)-46). Supervisors' ability to manage their students' emotions was observed when they motivated their students. This is through understanding what motivates their students and creating a positive emotional environment, which helped students to stay engaged and focused on their work. Students were more motivated to work hard when they felt supported by their supervisors, which was observed through the use of

positive language (see, for example, 38)-42)-44)). Supervisors' responding and managing their students' emotions was captured also in example 44) when they promoted positive emotions through persuasive language and validation of their efforts to elevate student's self-doubt and boredom. Overall, students' observations suggest that emotionally intelligent supervisors are those who are able to create a positive emotional environment, appreciate, inspire, and motivate their students, provide encouragement, constructive and considerate feedback, and validate their efforts, and understand and meet their needs. This is in line with studies that found comparable results with regards to the qualities of effective supervisors that align with EI skills (Sambrook et al., 2008; Doloriert et al., 2012; Gunasekera et al., 2021; Buirski, 2022).

As mentioned earlier in this section, students used positive and negative words when describing their supervisory relationship. However, when looking at the context in which some expressions that seem to have negative connotations occur (see, e.g., *push*), we can see that they are used in a positive and motivating sense. See Example (47) below along with Examples 45) and 46) mentioned earlier.

47) they are always here for me ... everything gets easier when you have supervisors like mine. Although sometimes they push you, but it's in a positive way because we have to finish in a certain framework, and they know whether what we are doing is going on time or not.

In example 45), the student uses "*push me to work and progress*" to mean that her supervisors motivate and encourage her to carry on working on her project, even when she feels discouraged. She sees her supervisors as providing positive reinforcement and feedback that helps her to stay motivated.

In examples 46) and 47), the expressions "*push me forward*" and *push you*" are used to mean that the supervisor's feedback motivates the student to continue working towards their goals and within a certain timeframe. Their supervisors are seen as supportive figures who help them stay focused and on track and who provide constructive feedback to help students improve. In these examples, the word *push* is used in a positive and motivating sense to refer to the encouragement and support provided by supervisors to help their students achieve their goals.

The word *pressure* as a noun and as a verb is annotated by USAS as follows.

pressure	NN1	N3.5 S7.1+ E6-
pressure	VV0	S7.1+ E6-

Figure 5.15: 'pressure' annotation by USAS

Note here that *pressure* as a noun is first tagged as N3.5 (measurement: weight). However, in this context, it refers to the third category *E6-: Worry*. See Figure 5.16 below, which captures of the concordance lines of the expression, *under pressure*.

7 occurrences.		Extend context
is not good for me I do n't work good under pressure	I think success is all about motivatio	1 More Full
it . Well overall as a person I work under pressure	I 'll tell you what so whenever I 'm h	2 More Full
ve that I 'm kind of person who works under pressure	when things are approaching and yeah N	3 More Full
and I told him explicitly that I work under pressure	but for example I kept meeting deadlin	4 More Full
h deadlines that 's how I work I work under pressure	I know if I need to give him 500 words	5 More Full
ood in a way but for persons who work under pressure	it 's not that good but I like it over	6 More Full
eople working so I want to put myself under social pressure	like I 'm going to the library and see	7 More Full

Figure 5.16: Concordances of 'under pressure'

Notice in these examples that the students mention that they work under pressure, meaning they prefer to work under pressure, which is essentially the supervisors' exerting a level of pressure in order to motivate them to work (usually to a certain period). In 7 occurrences of the expression *under pressure*, it has a positive connotation (x6) and a negative connotation (x1). One student expressed her inability to work under pressure. This sheds light on the supervisors' need to monitor the pressure level. Although the word *pressure* is tagged as *E6-: worry*, in this context, some students mentioned where they needed that boost of adrenaline to work harder using the expression '*I work under pressure*' 6 times. It is worth noting that in the aforementioned example 2) in Section 5.1.3, the student stated that she missed this form of pressure which led to her belief that she had not progressed as required. This puts the supervisor under a challenge of setting a balance between when to pressure their students to boost their productivity and when not to pressure them when they are unable to manage stress and anxiety (Buirski, 2022). Buirski's study emphasises the need for supervisors to embody dispositional qualities such as empathy, flexibility, openness, and humility, personal support, respect, and trust, which are essential for developing highly valued supervisory relationships (*ibid*: 1400).

Students used *pressure* and *push* in this context to refer to supervisors' motivation and their influence on them to work on their studies. They appreciate a supervisor who is able to maintain a balance between provocation (rigorous feedback, motivation) and comforting (appreciating, showing care over students' concerns) (Manathunga et al., 2009; Buirski, 2022). The analysis of the concordance lines of the word *pressure*

(which occurred in the students' data set 23 times) reveals that students may need some degree of pressure in order to boost their motivation to work harder such that they achieve their outcomes on some occasions, while at other times they need comforting by their supervisors in order to feel that they are on the right track.

Recognising when to pressure their students to boost their productivity and when to reassure and calm them down when they are unable to manage stress and anxiety is effectively a challenge for supervisors (Woolderink et al., 2015; Mustafa et al., 2014; Christie, 2008). In the case of this study, students mentioned that their supervisors draw upon several EI skills to maintain that balance, among which are: 1) Empathy: sensing others' emotions, understanding their perspective, and taking active interest in their concerns. 2) Inspirational leadership Influence and communication: wielding a range of tactics for persuasion. 3) Developing others: bolstering others' abilities through feedback and guidance. 4) Change catalyst: initiating, managing, and leading in a new direction (Goleman et al. 2013: 39). This is the ability to manage others' emotions as Mayer et al put it (2001), which allows a supervisor to influence the moods and feelings of students toward a positive outcome. 'Compassionate rigour' is the name of a supervisory programme developed by Manathunga (2009), in which she discusses how supervisors integrate these two notions and manage the tension between them in a way that allows supervisors to support students, while also ensuring that they receive the rigorous feedback they need to develop. Wisker et al. (2012) suggest that supervisors and institutional support systems should work towards reducing harmful stress, while other stress provides a surge of adrenaline and opportunities for transformative, challenging learning. This can lead to the development of critical, creative thinking and research, resulting in more advanced writing and concepts (see Section 6.6).

5.1.6 Summary

In summary, students used a variety of linguistic features to describe their supervisors' influence that were captured in three semtags (*In power*, *Cause and Effect*, and *Helping*). Some collocations were signalled such as *make me feel* and *I work under pressure* referring to supervisors' ability to manage their students' moods towards

working harder and succeed (see Examples 1)-2), 32)-33) and 40)). Keywords such as *motivation*, *management*, *control*, *pressure*, *help*, *support*, *guide*, *inspire*, *boost*, and *encourage* are significantly prevalent in these key domains (see Table 5.1). Goleman and colleagues' (2013) notion of relationship management seems to be something that all of these keywords have in common (see Section 2.2.2). The competencies of relationship management include inspiration, influence, developing others, change catalyst, conflict management, building bonds, teamwork, and collaboration (Goleman et al, 2013: 39), all of which come down to managing others' emotions (see Section 2.2.3 for more details). The ability to manage others' emotions, as Mayer et al put it (2001), allows a person to influence the moods and feelings of others toward a positive outcome. The ways in which supervisors displayed the ability to manage the supervisory relationship were observed by students and are described in supervisors' communications when providing feedback, using positive language of affirmation, being compassionate and appreciating their students' achievements, comforting when students are stressed, insisting on the positives their students have done, friendliness and approachability which makes it easier for students to voice their emotions (see Examples 1),5)-6), 17)-18), 23), 28), 33), 37), 40).

The following section will delve into the linguistic framing of EI in doctoral supervision based on supervisors' data, providing insights into their perspectives and shedding light on the reasons behind their practices and approaches.

5.2 Exploring emotion and EI in the supervisors' dataset

This section examines the supervisors' dataset collected from semi-structured interviews and draws upon the BNC spoken sampler as a comparison corpus (see Section 3.5.2). At 99% confidence (of items not occurring by chance), the LL value of 6.63 or higher indicates 729 keywords. Table 5.6 below demonstrates the top 25 (of the 729) keywords found in the supervisors' dataset. It also provides details of their LL values (ranging from 105.60 to 1368.12) and LogRatios (ranging from 1.03 to 12.98), making them very highly significant, statistically speaking.

	Item	01	%1	02	%2	LL	LogRatio
1.	students	205	0.89	30	0.00+	1368.12	8.18

2.	student	147	0.63	28	0.00+	956.17	7.80
3.	phd	95	0.41	0	0.00+	716.54	12.98
4.	supervisor	62	0.27	0	0.00+	467.64	12.36
5.	supervision	65	0.28	5	0.00+	454.47	9.11
6.	emotions	60	0.26	12	0.00+	388.23	7.73
7.	emotional	42	0.18	8	0.00+	273.19	7.80
8.	intelligence	35	0.15	9	0.00+	219.82	7.37
9.	sometimes	63	0.27	183	0.02+	203.79	3.87
10.	relationship	37	0.16	25	0.00+	196.63	5.97
11.	feedback	31	0.13	9	0.00+	191.58	7.19
12.	kind_of	39	0.17	39	0.00+	187.84	5.41
13.	supervisors	27	0.12	3	0.00+	184.28	8.58
14.	i_think	66	0.28	280	0.03+	173.63	3.32
15.	because	154	0.66	1920	0.20+	153.83	1.77
16.	to	661	2.85	16611	1.69+	149.25	0.76
17.	international	31	0.13	38	0.00+	140.65	5.11
18.	their	98	0.42	954	0.10+	131.83	2.12
19.	academic	19	0.08	2	0.00+	130.19	8.66
20.	different	66	0.28	463	0.05+	121.24	2.60
21.	rapport	16	0.07	0	0.00+	120.68	10.41
22.	experience	36	0.16	99	0.01+	119.57	3.95
23.	think	199	0.86	3491	0.36+	114.33	1.27
24.	so	268	1.16	5570	0.57+	105.87	1.03
25.	supervisory	14	0.06	0	0.00+	105.60	10.21

Table 5.6: Top 25 keywords in supervisors' dataset

As Table 5.6 reveals, there is a striking number of keywords relating to the domains of Education (e.g., *students*, *PhD*, *supervisors*, *academic*), Emotion (e.g., *emotions*, *emotional*), Psychological activities (e.g., *intelligence*, *I think*, *experience*) and social actions (e.g., *relationship*, *rapport*) within the top 25 keywords. This relates to/can be accounted for by the topics that were covered in the interviews, namely, the concept of EI, the context of higher education and the nature of the student-supervisor relationship.

Using the same cut-off point of 6.63, $p < 0.01$ (i.e., 99% confidence), we have 73 key semantic fields. Figure 5.17 shows top 20 'key' semantic fields in the supervisors' dataset.

		Item	O1	%1	O2	%2	LL	LogRatio	
1	List1	Broad-list Concordance P1	542	2.34	1928	0.20 +	1578.49	3.58	Education in general
2	List1	Broad-list Concordance E1	119	0.51	137	0.01 +	550.32	5.20	Emotional Actions, States And Processes General
3	List1	Broad-list Concordance S7.1+	245	1.06	3064	0.31 +	243.72	1.76	In power
4	List1	Broad-list Concordance X2.1	353	1.52	7031	0.72 +	154.53	1.09	Thought, belief
5	List1	Broad-list Concordance N6	70	0.30	399	0.04 +	151.28	2.90	Frequency
6	List1	Broad-list Concordance X9.1+	97	0.42	842	0.09 +	146.83	2.29	Able/intelligent
7	List1	Broad-list Concordance X2.2+	273	1.18	5481	0.56 +	117.30	1.08	Knowledgeable
8	List1	Broad-list Concordance X4.1	92	0.40	1066	0.11 +	101.07	1.87	Mental object: Conceptual object
9	List1	Broad-list Concordance S1.1.2+	56	0.24	471	0.05 +	87.41	2.33	Reciprocal
10	List1	Broad-list Concordance X2.5+	66	0.28	684	0.07 +	82.84	2.03	Understanding
11	List1	Broad-list Concordance S5-	46	0.20	340	0.03 +	80.81	2.52	Not part of a group
12	List1	Broad-list Concordance E6+	40	0.17	292	0.03 +	71.03	2.54	Confident
13	List1	Broad-list Concordance S3.1	63	0.27	752	0.08 +	66.64	1.83	Personal relationship: General
14	List1	Broad-list Concordance X2.4	69	0.30	889	0.09 +	65.90	1.72	Investigate, examine, test, search
15	List1	Broad-list Concordance X2.6+	36	0.16	261	0.03 +	64.31	2.55	Expected
16	List1	Broad-list Concordance L1+	19	0.08	51	0.01 +	63.83	3.98	Alive
17	List1	Broad-list Concordance S6+	238	1.03	5698	0.58 +	63.17	0.83	Strong obligation or necessity
18	List1	Broad-list Concordance S8+	106	0.46	2020	0.21 +	51.29	1.15	Helping
19	List1	Broad-list Concordance X4.2	83	0.36	1464	0.15 +	47.18	1.27	Mental object: Means, method
20	List1	Broad-list Concordance I3.1	121	0.52	2747	0.28 +	37.72	0.90	Work and employment: Generally

Figure 5.17: Top 20 key semantic fields in supervisors' dataset

Here, there has been captured an abundant occurrence of semtags captured by three major semantic fields: (E) *Emotion*, (X) *Psychological actions*, and (S) *Social actions* (see the full list of USAS major semantic domains in Section 3.5.2). These domains are the focus of the next stage of analysis. Particular attention is given to EI-associated skills in the HE context that are both statistically relevant (as per Wmatrix4) and have been identified (in Chapter 4) as meaningful. They include Rapport building and relationship management, Understanding emotions, and Managing emotions, given they represent key interpersonal EI skills (Cherniss and Goleman, 2001; Mayer et al, 1997; Bar-On 1997). The purpose of doing a semantic analysis of the supervisors' dataset is to extract the linguistic characteristics of these themes/EI skills.

5.2.1 Emotions in the supervisors' dataset

The Wmatrix4 software allows us to look for a specific domain. In the case of my study, I am interested in exploring the semantic domain of *Emotion* to see what types of emotions are captured in this dataset prior to delving into how supervisors respond to these emotions. Figure below indicates the 'key' semtags under the major semantic domain *Emotion* which are captured at a cut-off point of LL6.63.

		Item	O1	%1	O2	%2	LL	LogRatio	
1	List1	Broad-list Concordance E1	119	0.51	137	0.01 +	550.32	5.20	Emotional Actions, States And Processes General
2	List1	Broad-list Concordance E6+	40	0.17	292	0.03 +	71.03	2.54	Confident
3	List1	Broad-list Concordance E6-	49	0.21	733	0.07 +	37.40	1.50	Worry
4	List1	Broad-list Concordance E4.2-	13	0.06	88	0.01 +	24.60	2.65	Discontent
5	List1	Broad-list Concordance E2+	24	0.10	2255	0.23 -	19.76	-1.15	Like
6	List1	Broad-list Concordance E2-	1	0.00	286	0.03 -	7.55	-2.75	Dislike
7	List1	Broad-list Concordance E4.1---	1	0.00	0	0.00 +	7.54	6.41	Sad

Figure 5.18: Key sub-domains under Emotion

Table 5.7 draws upon Wmatrix4's use of (+) to signal "positive" and (-) to signal "negative".

Positive emotions	Negative emotions
E6+: confidence (20) confident (7) trust(4) reassurance (2) confidently (1) reassuring (1) reassures (1) reassure (1) E2+: like (16) love (2) appreciate (1) liked (1) likes (1) enjoy (1)	E6- : concerns (11) worried (8) anxiety (6) anxieties (5) concerned (4) care (2) concern (2) worry (2) cares (2) tension (1) worries (1) stresses (1) stressful (1) stress (1) worrying (1) tensions (1) E4.2- : frustrated (5) frustrating (3) frustration (3) disappointing (1) frustrations (1) E2- : disliking (1) E4.1--- : rock-bottom (1)

Table 5.7: Word frequencies of sub-domains of Emotion

There are 59 words referring to positive emotions, while 64 refer to negative emotions according to the Table 5.7 above. However, when analysing the context in which these words occur, these results alter. For instance, the word '*like*' is used in 5 instances as a conjunction. In 9 instances, positive emotions were used to refer to negative emotion as in, for example, "very often the students don't have the confidence". On the other hand, 4 instances were negative emotions that had a positive connotation in context. We might also add, here, that most emotions that can be judged negatively, denotatively speaking, can refer to a positive event in practice. In this case of study, for example, expressing concerns and worries are valued by supervisors, as it is perceived to enable them to help students manage those negative emotions.

- 1) some students need to be told "okay I acknowledge your anxiety. Let me know if it gets worse", but for now this is the plan...
- 2) I think they should share their concerns with me. I hopefully I'm approachable enough that they feel comfortable doing that.

Assessing the occurrences of the word *anxiety* to see how supervisors deal with their students reveals that verbs that occur in conjunction with this emotion are: *detect, articulate and linger, with, acknowledge, understand, express*. See Figure 5.19 below.

6 occurrences.	Extend context
you can easily just kind of detect anxiety This is why I also like to work wit	1 More Full
to articulate and linger with the anxiety does n't help the student so some s	2 More Full
to be told okay I acknowledge your anxiety let me know if it gets worse but fo	3 More Full
e students understand that this is anxiety related and that only then you can	4 More Full
student the same space to express anxiety but I think it has to do with the n	5 More Full
ld otherwise so there was a bit of anxiety about completion and getting things	6 More Full

Figure 5.19: Concordance line of the word 'anxiety'

The concordance lines of *anxiety* show how supervisors react to their students' anxiety. This has indication of how supervisors react to their students' anxiety based on the verbs that are commonly used in conjunction with the word "anxiety" when describing how supervisors deal with their students. The verb "detect" implies that supervisors are actively looking for signs of anxiety in their students and are attuned to their emotional states. This can be an important part of offering support and guidance to students who are experiencing anxiety. The verb "acknowledge" implies that supervisors are not only aware of their students' anxiety, but are willing to recognise and validate it. This can be a significant step towards establishing an open and supportive environment for students, supported by Collins and Brown's (2021) study on the role of validation in the doctoral journey and its impact on PhD students' well-being. By employing reflective methods and conducting interviews with 6 PhD students, the authors explored how these students manage their emotions within their projects and PhD communities. Their findings stress the significance of validation in the process of the PhD student's identity formation. They argue that without external validation, emotional dissonance can occur, highlighting the emotional challenges faced by PhD students. The study emphasises the essential role of validation in the emotional labour undertaken by these students.

The verb "understand" implies that supervisors are attempting to understand the underlying causes of their students' anxiety. This is an important aspect in providing effective support because it allows supervisors to tailor their approach to each individual student's needs. The verb "express" implies that supervisors encourage their students to open up about their anxiety. This can be an important part of assisting students in developing coping strategies and resilience. The co-occurrence of the word "anxiety" with the verbs *detect*, *articulate*, *linger with*, *acknowledge* and suggests indicates that the supervisors were actively trying to identify and understand their students' emotional state. It also indicates that the supervisors were acknowledging and validating their students' emotional experiences.

The linguistic features identified in the analysis suggest that the supervisors were demonstrating EI and empathy in their interactions with their students. In order to analyse the language related to EI in the supervisors' dataset, specific semantic fields are used such as *Understanding*, *Personal relationships*, and *Reciprocal*. Sections below will provide further details.

5.2.2 Rapport in the supervisors' language

Rapport has appeared in Table 5.6 as the 21st keyword, with 16 occurrences, an LL of 120.68 and a LogRatio of 10.42. *Rapport* is defined as a general emotion shared by two individuals and involves characteristics such as harmonious understanding and interaction, mutual and prosocial ties, and trustworthiness. According to Sinha and Sinha (2007), relationship management is regarded as the most advanced level of EI as it encompasses all other dimensions of EI competence, including self-awareness, self-management, and social awareness. (See Section 2.2.2).

People with high EI have proficiency in relationship management and are able to build rapport with others (Goleman, 1998). Relationship management fundamentally involves empathy and managing others' emotions, according to Goleman's (2001) EI model, and comprises the characteristics of: Developing others - Influence - Communication - Conflict management - Leadership - Change catalyst - Building bonds - Teamwork & collaboration.

The following table represents the key sub-domains associated with EI, namely, Empathy, Managing emotions, and Relationship management and rapport. These can be mainly derived from the semantic fields: (X) *Understanding*, (S) *Social actions, states and processes* and (Q2.1) *Speech: Communicative*.

Table 5.8 below shows the various semantic sub-domains of *Social actions states and processes*, as well as *Understanding*, all of which are above the cut-off point of LL6.63.

Key Semantic domain	Semtag: Sub-domain	LL	Log Ratio	Word frequencies
Social actions,	S1.1.2+: Reciprocal	87.41	2.33	<i>rapport</i> (16), <i>share</i> (10) <i>respond</i> (9) <i>sharing</i> (9) <i>responds</i> (3) <i>interaction</i> (2)

states, and process				<i>mutual</i> (2) <i>responding</i> (1) <i>shares</i> (1) <i>each-other</i> (13)
	S3.1: Personal relationships; general	66.64	1.83	<i>relationship</i> (37) <i>relationships</i> (8) <i>friend</i> (4) <i>friends</i> (1)
	S1.2.1+: Informal; friendly	10.74	2.12	<i>personal</i> (13) <i>empathic</i> (3) <i>empathy</i> (3) <i>empathetic</i> (1) <i>friendly</i> (2) <i>approachable</i> (1) <i>informal</i> (1) <i>open</i> (6)
Psychological actions, states and processes	X2.5+: Understanding	82.84	2.03	<i>understand</i> (29) <i>understanding</i> (11) <i>realise</i> (6) <i>understands</i> (3) <i>empathy</i> (3) <i>interpret</i> (3) <i>realised</i> (2) <i>understandable</i> (2) <i>sensitive</i> (1)

Table 5.8: Semtags that capture Relationship management and rapport

The word frequencies in Table 5.8 above portray the instances when supervisors talk about their relationship with their students or their prior relationships with their own supervisors that they value and seek to emulate in their current practices. The high frequency of *understand* and its variants suggests that supervisors place importance on understanding their students' concerns and experiences. Similarly, there is a high frequency of *personal* and *relationship* and their variants, which may indicate that supervisors prioritise developing rapport with their students. The significant frequency of expressions in relation to *sharing* and *responding* also suggests that supervisors value active listening and engagement with their students. Furthermore, the presence of words such as *mutual* and *each-other* suggests that supervisors see their relationship with their students as collaborative and reciprocal. According to this table, relationship management in the (HE) supervisory context is characterised by reciprocity, empathy, open communication, friendliness, help and encouragement. It is pertinent, in which case, to look at the concordance lines of significant words in order to examine the (linguistic) context in which they were used.

The supervisory relationship was featured in the 9th key sub-domain *Reciprocal* (S1.1.2+), which has a LL value of 87.41 and LogRatio of 2.33. Figure 5.20 below captures the words and their frequencies in this semtag.

Word	Semtag	Frequency	Relative Frequency	
rapport	S1.1.2+	16	0.07	Concordance
share	S1.1.2+	10	0.04	Concordance
respond	S1.1.2+	9	0.04	Concordance
sharing	S1.1.2+	9	0.04	Concordance
responds	S1.1.2+	3	0.01	Concordance
interaction	S1.1.2+	2	0.01	Concordance
mutual	S1.1.2+	2	0.01	Concordance

Figure 5.20: Word frequencies of the subdomain S1.1.2+: Reciprocal

When looking visually at the lexical items that make up *Reciprocal*, we can see that this domain contains relevant keywords related to rapport, with the latter being ranked as its most frequent item (*rapport* is the 21st keyword with an LL120.68 and LogRatio 10.41).

Many aspects of rapport are highlighted in Section 4.2.2, such as sharing, responsiveness, interaction... etc. These aspects are all classified under the field of *Reciprocal*. Remarkably, when the concordance lines of each term are scrutinised, it becomes apparent how significant these EI elements are in the context of supervision.

See for instance Figure 5.21 below.

16 occurrences.	
fferent emotions it is very important to clarify . Building rapport is important because to me PhD process is the student respon just a wide guess I have no evidence for ... Oh building a rapport is crucial it 's crucial I think I think there are s limitation on how helpful you could actually be . building rapport with students is essential I mean sometimes it is not someth ou can do that if you do n't have I do n't know a kind of a rapport as you say I can relate to which there is beyond than merely ties and makes it difficult if you do n't have that kind of rapport it 's just going to be very hard for both of you and really and when things are going badly and you know if you have a rapport and you have trust in each other and you have a good well de fundamentally damaging impact on our relationships so yeah rapport is fundamental it 's like any other kind of relationship whe o start with and there is n't kind of a mutual trust mutual rapport then it 's not going to work and then that kind of you 'll e students I found it relatively straightforward to develop a rapport with so on the whole I have n't found a massive difficulty I	

Figure 5.21: Concordance line of 'rapport'

The lexical items that represent the *Reciprocal* sub-domain capture characteristics of the notion of EI represented in Relationship management and rapport in the supervisory context. By way of illustration, when examining the context and concordance lines of *Rapport*, results show that:

- Three examples link *rapport* to effective and constructive feedback provision by supervisors and process by students. (See Sections 4.2.3 and 4.2.5)
- In five instances, *rapport* was linked to recognising students' emotions and needs and providing support accordingly. In this regard, responsiveness was attributed to positive rapport. (See Section 4.2.4)
- *Rapport* also helps student express ideas and concerns safely. This was expressed in two examples. (See Section 4.2.4)

- *Rapport* was linked to having mutual trust between the supervisor and their students in (5) instances. (See Section 4.2.3)

The above findings suggest that, in the study's context, rapport is seen an essential element in the supervisory relationship, and is used primarily to establish trust and mutual understanding.

Wmatrix4 allows its users to search for collocations between keywords and semantic domains. The keyword *Rapport*, for example, collocates significantly with *A11.1+: Important*. See Figure 5.22 below.

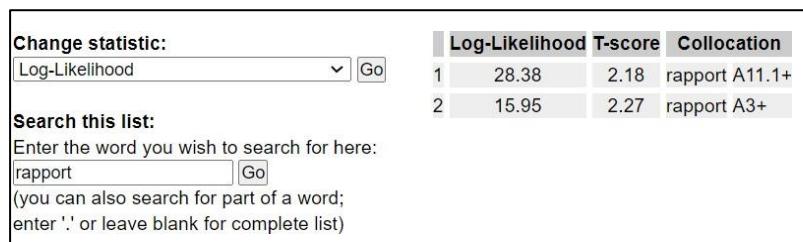


Figure 5.22: 'rapport' collocation list

Rapport collocates 8 times with *A11.1+: Important*, which is represented in this dataset by the adjectives *fundamental* (1), *essential* (1), *important* (4), and *crucial* (2), indicating that rapport is important in the supervisory process in the sense that it facilitates different sorts of communication. This is exemplified in Figure 5.23 below.

16 occurrences.		Extend context
ry important to clarify . Building rapport is important because to me PhD proc	1 More Full	
no evidence for ... Oh building a rapport is crucial it 's crucial I think I	2 More Full	
I you could actually be . building rapport with students is essential I mean s	3 More Full	
n't have I do n't know a kind of a rapport as you say I can relate to which th	4 More Full	
It if you do n't have that kind of rapport it 's just going to be very hard fo	5 More Full	
g badly and you know if you have a rapport and you have trust in each other an	6 More Full	
mpact on our relationships so yeah rapport is fundamental it 's like any other	7 More Full	

Figure 5.23: : A fragment of the concordance line of 'rapport'

Figure 5.23 shows a fragment of the concordance lines for *rapport* in the supervisor dataset. The frequent collocation of *rapport* with the words *fundamental*, *essential*, *important* and *crucial* suggests that rapport is a key aspect in the supervisory relationship. This indicates that supervisors place a strong emphasis on the importance of building and maintaining rapport in their interactions. This finding is further supported by the high frequency of other related words such as *relationship* (37), *friend* (4), and *mutual* (2), which suggests that creating a positive and supportive relationship with students is seen as a critical component of the supervisor's role, and

that this can lead to better outcomes for both the students and the supervisors. See Example 3) below.

- 3) rapport building is perhaps the most important thing because if you don't have that rapport, it's not going to be a positive experience in the long run, because either you won't want to communicate with me certain things, or I'm not going to be able to respond in a certain way.

In this example, rapport is seen essential in the supervisory relationship to facilitate communication. This was also articulated in 9 instances. See the two examples below where rapport was linked to communicating feedback.

- 4) rapport is fundamental. It's like any other kind of relationship where you need sometimes to say, you know, to say ... tell hard truths ... tough things ... or whatever. If that relationship isn't sort of built upon a solid foundation to start with, and there isn't kind of a mutual trust ... mutual rapport, then it's not going to work and then ... that kind of... you'll even be scared to say what you need to say.
- 5) you need to be able to be frank with people about when things are going well and when things are going badly, and, you know, if you have a rapport and you have trust in each other and you have a good well-developed relationship then you can say this isn't going that well right now.

The examples show the importance of rapport in a supervisory relationship and how it is required to facilitate communication with students.

When examining the collocations of *share* and *sharing* that occur 19 times in the dataset under the same semantic domain *Reciprocal*, the results indicate that the string 'shar' (to trace all strings including *share* and *sharing*) collocates with the semantic domain X2.2+: *Knowledgeable*. This is represented by the keywords *experience* (LL119.57 and LogRatio 3.95) and *experiences* (LL68.50 and Log Ratio5.14). See Figure 5.24 below.

Change statistic:	Log-Likelihood	T-score	Collocation
	1 Log-Likelihood	2.23	sharing experiences
	2 28.40	1.73	share experiences
Search this list:	3 23.05	1.71	sharing those

Enter the word you wish to search for here:

 (you can also search for part of a word;
 enter '.' or leave blank for complete list)

Figure 5.24: Collocation list of 'share' and 'sharing'

The collocation software is a useful tool in that it provides easy access to lexical items so that I can see how they relate to one another across different semantic fields. As Figure 5.24 shows, *shar(e)ing* (from S1.1.2+ *Reciprocal*) collocate with *experience(s)* (from X2.2+: *Knowledgeable*). This provides a context in which this keyword happens to appear in this dataset, as sharing here is linked to supervisors' personal stories they tell their students, and hence, it allows us to know how this can relate to EI in this case. Figure 5.25 provides the concordance lines of *sharing*.

9 occurrences.	Extend context
and when I am supervising my student , I am sharing that kind of process . And that to me those a	1 More Full
how I think they get motivated because of my sharing . But I am not doing that very often because	2 More Full
much higher than realities allow and I think sharing those experiences is quite a positive thing a	3 More Full
king on the emotional intelligence stuff ... sharing I think emotional experiences from an objecti	4 More Full
let go for a couple of days and I think that sharing those things can be quite helpful because it	5 More Full
d of coaching you and guiding you so I think sharing those experiences positive and negative can s	6 More Full
e to see that variation , you know , sort of sharing all these different stories . I think it 's ,	7 More Full
national . not directly no I do n't think so sharing experiences I do n't know if it is helpful I	8 More Full
tually , I do n't think it 's a good example sharing personal experiences , because I did n't stru	9 More Full

Figure 5.25: Concordance line of 'sharing'

Sharing in these examples is mentioned with respect to experiences/ stories that supervisors share with their students to show empathy and reassurance. This relates to the EI aspect of managing emotions in others, in a way that helps them to carry out their studies successfully. Sharing personal experiences was captured in this dataset to reflect supervisors' displays of empathy, reassurance and encouragement of their students, which is linked also to rapport building. This suggests that aspects of EI (empathy, emotion management and building rapport) in this context is represented in the form of relating to and sharing experiences.

- 6) sharing I think emotional experiences from an objective standpoint can also alleviate some of those struggles that people have, because it is a sort of ... I said in my answers it's an unfortunate truth that we all struggle with emotions throughout the project.

7) I am sharing that kind of process. And that to me those are my motivation and students somehow are impacted. Somehow, I think they get motivated because of my sharing.

Examining these examples indicates that sharing personal experiences helps supervisors communicate empathy as well as provide reassurance, inspiration and encouragement (managing emotions), given that reflecting on their own experiences helps them manage their own emotions and those of their students (Doloriert et al., 2012). Supervisors stated that they understand what their students were going through given that they (supervisors) have experienced same (or similar) struggles themselves (see (Doloriert et al., 2012; González-Ocampo and Castelló, 2018)).

When analysing the collocation of *sharing* and *experience*, notions of empathy, reassurance, motivation, connectedness, and sense of belonging emerge. Table 5.9 below manifests some excerpts from the supervisors' answers about why they share their personal experiences with their students.

Expressions used while discussing shared experiences (from supervisors' dataset)
<ul style="list-style-type: none">- to assure them that no!... it isn't you...it's all of us and this is common and typical,- to alleviates some of the struggles that people have.- to flatten that hierarchy a little bit and make it feel more personal and more comfortable.- it explains what they are experiencing is not unusual or atypical or sort of out of the ordinary.- a way of showing students kind of that we're all in the same boat.- talking about your own experience about what happened to you, your own difficulties, how you fail but also sometimes succeed and that's just the way it is.

- Expressions used while discussing shared experiences (from supervisors' dataset) |

- to assure them that no!... it isn't you...it's all of us and this is common and typical,
- to alleviates some of the struggles that people have.
- to flatten that hierarchy a little bit and make it feel more personal and more comfortable.
- it explains what they are experiencing is not unusual or atypical or sort of out of the ordinary.
- a way of showing students kind of that we're all in the same boat.
- talking about your own experience about what happened to you, your own difficulties, how you fail but also sometimes succeed and that's just the way it is.

Table 5.9: Extracts from supervisors' dataset

Sharing experiences, as these examples imply, acts as a mediator in rapport building through its empathic and encouraging effect upon students. Sharing personal experiences appears to serve as a form of enacting empathy, which is also articulated in the 10th key semantic domain *Understanding* (LL 82,84, Log Ratio 2.03), represented by terms like *understand* (29), *empathy* (3), *interpret* (3) and *sensitive* (1). Figure 5.26 below is a fragment from the concordance lines of the word *understand*, which is also a keyword in its own right (with an LL54.04 and LogRatio 2.62).

29 occurrences.		Extend context
at I 'm doing so that the student can understand why he or she is being supervised this	understand the process and always it is very impo	1 More Full
sure the students and the supervisor understand whether this is positive or negative a	that is something emerged , I need to understand why . If because the student is resist	2 More Full
that is something emerged , I need to understand whether this is positive or negative a	the situation that you are in. and I l	3 More Full
e and the student resisted . I try to understand the issues they have . I think this is	u do n't feel that you are alone . We understand each other , we support each other and	4 More Full
e and the student resisted . I try to understand the issues they have . I think this is	each other I think we can build the ve	5 More Full
u do n't feel that you are alone . We understand each other I think we can build the ve	the feedback that you are giving them	6 More Full
ble she has prioritised that . So , I understand that this is anxiety related and that	that this is anxiety related and that	7 More Full
is having pressures and as long as we understand that and this is maybe when supervisor	t be able to see that all the time to understand enough about the students how the stud	8 More Full
gle the student has experienced if we understand that and this is maybe when supervisor	the kind of academic culture they 're	9 More Full
is your next step to make the student understand as early as possible what 's a UK PhD	as early as possible what 's a UK PhD	10 More Full
nd then you need to have the students understand how they are feeling interpre	11 More Full	12 More Full
t be able to see that all the time to understand how they are feeling interpre	13 More Full	14 More Full
broach those issues ... if you do n't understand how they are feeling interpre	15 More Full	

Figure 5.26: Concordance line of 'understand'

In the semantic field of *Understanding*, communicating empathy was represented by supervisors reflecting on their own experiences, responding to their students' worries in a timely manner, and acknowledging those emotions (this will be further addressed in the forthcoming analysis of the semantic field *Speech: Communicative*: see Section 5.2.4). Consider the following excerpts.

- 8) it is important that a PhD supervisor being sensitive to ... intuitive to all the feelings of other people and being able to understand how they are feeling, interpret their behaviour in line with an understanding of their emotions and therefore being able to sort of understand why they are saying what they are saying, doing what they're doing, behaving the way they are, and behave on that to respond in an appropriate fashion.
- 9) I try to use my experience to show them that I understand them.
- 10) I always say if something happens just let us know, and that we are there for you to support you so you don't feel that you are alone. We understand the situation that you are in.

Understanding students' emotions in this dataset has taken several forms, according to the supervisors, including pulling emotions from conversations with them, from their behaviours, and research progress that may disclose parts of what they feel about themselves and their research. Empathy was demonstrated, in turn, in the form of approachability and showing care and support.

The examination of the concordance lines of the 13th and 37th key sub-domains, S3.1 and S1.2.1+ (*Personal relationships* and *Informal: friendly*) from Table 5.8, reveals that

supervisors used words such as *empathic*, *friendly* and *approachable* in describing their relationship. See figure 5.27 below.

k it 's my second nature I am a very empathic person so I do think about how I send 2 More Full
ir concerns with me I hopefully I 'm approachable enough that they feel comfortable doi 3 More Full
being quite not frightened . He was friendly . But careful . You know what I mean 4 More Full
say that rapport is n't always being friendly with each other sometimes a student w 5 More Full
high and then we get there we become informal so I think it 's really a difference 6 More Full
o that 's emotionally intelligent or empathic . I do think that it 's implicit in s 7 More Full
consider myself an empathetic or an empathetic person . But I personally do n't brin 8 More Full

Figure 5.27: Concordances of words of the semantic field Personal relationships: Informal

The frequencies of these words indicate that the supervisors are aware of the importance of creating a supportive and comfortable environment in which their students can share their concerns. The use of the word *empathic* suggests that supervisors are attentive to the emotional needs of their students, while the use of *approachable* and *friendly* indicates that supervisors strive to create an open and welcoming atmosphere. The use of *informal* also suggests that supervisors are willing to make students feel at ease. Taken together, these word frequencies reflect supervisors' use of EI strategies to create a supportive atmosphere, as well as their awareness of the significance of EI related skills particularly interpersonal skills in building a positive relationship with their students. This suggests that supervision does not always have to be always overly formal, in the UK context, moreover, as friendly supervisory relationships are seen (by supervisors working within the UK context) as providing a space for expressing needs and concerns. Indeed, there seems to be a view that reducing formality and hierarchy expected, to the point of being seen as essential when it comes to the supervisory relationship (see Sections 4.1.2.1 and 4.2.3).

5.2.3 EI in supervisors' management of students' emotions.

This section explores semantic fields linked to supervisors' emotion management: namely, how supervisors used language in managing their students' emotions. The notion of influence is captured in four semantic domains that have already been explored: *Helping*, *In power*, *Interest/excited/energetic* and *Confident*. Table 5.10 demonstrates the LL and LogRatio of each of these domains as well as their word frequencies.

Semtag: Sub-domain	Word frequencies
S7.1+: In power (LL= 243.72 ;LogRatio=1.76)	<i>Manage</i> (6) <i>control</i> (5) <i>controlling</i> (5) <i>management</i> (3) <i>managing</i> (2) <i>hierarchy</i> (2) <i>in control</i> (1) <i>influence</i> (1)
E6+: confident (LL= 71.03 ;LogRatio=2.54)	<i>trust</i> (5) <i>reassure</i> (1) <i>reassurances</i> (1) <i>reassuring</i> (1) <i>reassurance</i> (1)
S8+: Helping (LL=51.29 ;LogRatio= 1.15)	<i>help</i> (35) <i>helpful</i> (10) <i>helping</i> (2) <i>support</i> (22) <i>advice</i> (7) <i>advised</i> (2) <i>encouragement</i> (1) <i>supporting</i> (1) <i>care</i> (1) <i>moral-support</i> (1) <i>supportive</i> (1) <i>inspire</i> (1) <i>inspiring</i> (1)
X5.2+: Interest/excited/energetic (LL = 4.20 ;LogRatio= 0.67)	<i>Motivation</i> (9) <i>motivated</i> (4) <i>motivate</i> (3) <i>motivating</i> (2) <i>motivates</i> (1) <i>motivations</i> (1)

Table 5.10: Word frequencies of selected key semantic sub-domains

The word frequencies suggest that supervisors in this dataset are actively working to support the emotional and academic wellbeing of their students and are displaying a range of EI behaviours in the process. These skills include empathy (as indicated by the frequency of words like *helpful*, *reassurance*, and *encouragement*), motivation (as seen in words like *motivated*, *motivating* and *motivates*), and support (as seen in words such as *help*, *support*, and *advice*). The use of words like *control*, *managing* and *hierarchy* suggests that supervisors are also aware of the power dynamics at play in their relationships with students and are actively working to manage these dynamics in a way that is supportive and beneficial to the student (Doloriert et al., 2012). See for instance Examples 11) and 12) below.

- 11) I think sharing those experiences positive and negative can sort of flatten that hierarchy a little bit and make it feel more personal and more comfortable.
- 12) I often find that the hierarchy is expected to be a lot more significant from international students.

These examples suggest an awareness of cultural differences and the importance of building rapport and trust with students (see Sections 4.2.3 and 4.2.4).

This dataset makes extensive use of the concept of *Help*, which has several facets, including intellectual and emotional help. See Figure 5.28 below.

at 's more about okay what can we do to support	you but when it 's you know I 'm really
that sharing those things can be quite helpful	because it brings I think a lot of stu
ject I 'm just kind of coaching you and guiding	you so I think sharing those experiences
ly struggling with this project , I can help	you with that . Let 's park all of this
hat , when you have to then work really constructively	to build that that safety then someone f
put trust in themselves to be their own moral support	. And I think that 's a really important
if this is n't going okay because that helps	us to understand what academic writing i
mentioned shifting identities pastoral support	I can tell you a bit of what you have wr
isor becomes more explicitly a pastoral support	than an academic support role for a time
tly a pastoral support than an academic support	role for a time " and you have said : "
what this means . Do you need wellbeing support	? Do you need to go speak to a doctor ?

Figure 5.28: A fragment of concordances of the semtag S8+ *Helping*

Figure 5.28 shows the word frequencies of the key semantic sub-domain *Helping* (S8+), which takes various forms and comprises of encouragement and inspiration, both of which are associated with the abovementioned aspects of providing advice and sharing personal experiences of failure and achievement. The analysis of the 18th key semantic domain *Helping* (with LL 51.29 and Log Ratio 1.15) captures instances where supervisors engaged in managing their students' moods and feelings.

A multitude of lexical items refer to the notion of influence, among which are *help* (35), *motivation* (9) and *support* (22). Supervisors used these terms and others to refer to the various types of assistance they provide for their students as a means of influencing their moods, emotions and behaviours. Influence in this dataset has a positive connotation since supervisors seek to influence students towards a shared goal that is primarily in the interest of the student; to successfully complete the research project in a satisfactory manner (see Examples 6)-7), 9) and 11)). This aspect of influence towards shared goals is considered an EI aspect under social skills (Cherniss and Goleman, 2001).

In *Helping* (S8+), instances that capture aspects of managing students' emotions through motivating, helping students feel positive and helping them solve their problems draw upon *help*, *support* *inspire*, *inspiration*, *advice* and *encouragement*. See the examples below, in which the terms *help*, *advice*, *support*, *motivation* and *inspiration* are used:

- 13) if they [students] lack confidence, I may help them feel confident. So, my job there is to light up ... to be a counterbalance to their misery. So if they're basically Okay as a student, and their plan is Okay, and they're just feeling a little bit bad, then my job is just to sit on the other end and stop from swinging about, and so then I just literally tell them what I think

is true: that 'you're going to be fine... you're very clever ... you're able, you've come this far, you're not going to mess it up'.

14) The way I supervise my student, the way I show my passion and interest in their research, that ... somehow leads to motivation and inspiration, because I am doing research and when I am supervising my student, I am sharing that kind of process.

15) I'm starting to understand who the student is very quickly, get an idea ... is this the kind of student I have to push or the kind of student I have to hold back? That's a key ... a key distinction because that will completely affect the kind of advice you give them with the help they're going to need it... do you have to push them? Or do you have to pull on different types?

16) It is difficult ... to assume that people are able to regulate how they feel about their own work ... that people are willing to, I suppose, put trust in themselves to be their own moral support. And I think that's a really important part of the supervisor's responsibility is to build that confidence and sometimes that can feel a bit like we're taking the training wheels off and letting you go on your own and that can provide a bit of a shaky ground for that confidence to begin with, but I think you know it sort of pays dividends towards the end.

17) I supervise some students who told me that I love the supervisor who told me this is wrong , you did this wrong, so that this motivates me to do ... to work harder . So, it's, it's a different one when it comes to supervisors.

The examples indicate how supervisors use reassurance and encouragement when they communicate with their students. They also signal the notion of effective communication style which is an attribute of Self-awareness within EI (Nguyen et al., 2019). Being self-aware of one's own communication style and others' styles is key for building rapport and a long-lasting relationship. According to these statements, supervisors have a role in managing their students' emotions, including boosting their confidence and providing reassurance, motivating and inspiring them, understanding their individual needs and providing tailored advice and support. It is clear that different students require different approaches, with some needing a push and others needing

to be held back (see Examples 1; 13)-17)). The research findings indicate that supervisors have noticed a preference among certain students for motivational support and a certain level of pressure to work harder. On the other hand, supervisors have also recognised that prioritising their psychological well-being is crucial for some students before addressing their academic performance. This is also evident in students' findings (see for instance Sections 5.1.3 and 5.1.5). Additionally, the way supervisors provide and communicate feedback have a motivational impact on students (see Section 5.2.4 on communicating feedback), where students indicate that they appreciate when their supervisors provide a balanced feedback that is considerate and encouraging. These statements suggest that emotional management is an important aspect of supervising students.

When looking at the Semantic field *In power*, the representative terms in Table 5.10 appear to have strong connotation of power and authority. However, if we look at the context in which these words appear, the majority of them are attributed to supervisors' emotion management. Moreover, there is a significant collocation between the semantic field S7.1+: *In power* and the word *emotions* (with an LL= 12.92). These collocations are represented by *control* (5), *controlling* (5) and *manage* (6). See for instance Figures 5.29 and 5.29 below, relating to instances of *control* and *controlling* in the supervisor dataset:

5 occurrences.		Extend context
he conversation and relationship , should I control my emotion . Should I let the person I am tal		1 More Full
controlling emotions . I think the way I do control my emotions will affect the ways the others f		2 More Full
the supervisors . So , from my part , I do control my emotions . Whenever there are things I am		3 More Full
only time when it was really hard for me to control my anger or my frustration I might not always		4 More Full
supervision but that 's relatively easy to control because I always think it should be productiv		5 More Full

Figure 5.29: Concordance line of 'control'

5 occurrences.		Extend context
easy . So , it is more about me controlling my emotions rather than them . At		1 More Full
elves . So , I think it is about controlling emotions . I think the way I do c		2 More Full
ng . I think that skills such as controlling emotions can help in supervision		3 More Full
ve ... sometimes you are good at controlling emotions and sometimes you are no		4 More Full
is is important . And when I say controlling emotions that does not mean that		5 More Full

Figure 5.30: Concordance line of 'controlling'

It appears from Figures 5.29 and 5.30 above that the words *control* and *controlling* are used in the context of managing emotions. *Control* and *controlling* refer to supervisors' management of their own emotion and those of their students, which is regarded as an essential component in managing the supervisory relationship (Doloriert et al.,

2012; Roed, 2012; Johansson et al., 2014; Han and Xu, 2021). The supervisors' dataset suggests that the supervisor plays a crucial role in building their students' confidence and providing them with moral support. They recognise that it can be challenging for students to regulate their emotions when it comes to their work and that it is important for them to feel supported and encouraged by their supervisors. Supervisors also acknowledge that building confidence may require some initial discomfort or uncertainty, but it ultimately pays off in the end. This demonstrates a focus on emotional management and support on the part of the supervisor.

According to the findings above, empathy and emotional management are conveyed through dialogues between supervisors and their students. Hence, it is worth looking at the instances of supervisory conversations in this dataset, via the semantic field *Speech: communicative* (see 5.2.4, following).

5.2.4 Communication in supervision

The semantic field *Speech: communicative* is ranked 34th in this dataset (with LL= 12.70 and Log Ratio= 0.31). Table 5.11 below shows the word frequencies of this domain.

Key semantic field	Semtag: Sub-domain	LL	Log Ratio	Word frequencies
Linguistic Actions, States And Processes ; Communication	Q2.1: Speech; communicative	12.70	0.31	<i>say</i> (69) <i>talk</i> (30) <i>saying</i> (24) <i>said</i> (22) <i>talking</i> (15) <i>told</i> (11) <i>conversation</i> (10) <i>discuss</i> (10) <i>conversations</i> (9) <i>communication</i> (4) <i>communicate</i> (4) <i>communicator</i> (1), <i>speak</i> (4) <i>speaking</i> (2) <i>stories</i> (2) <i>have a chat</i> (3) <i>chat</i> (2) <i>chats</i> (2) <i>chatting</i> (1)

Table 5.11: Word frequencies of *Speech: communicative*

Effective communication is among EI competencies under Social Skills cluster (see Goleman et al's (2013) model and also Sections 2.2.2). The analysis of the concordance lines of the representative lexical items of *Communicative* shows several

terms used to characterise communication in this context, including *open* (7), *openly* (1), *explicit* (12), *explicitly* (1), *direct* (3), *directly* (2), *clear* (9), *straight* (1), *straightforward* (4), *clearer* (1), *honest* (4), *frank* (1). See Figure 5.31 below.

12 occurrences.	Extend context
itely sometimes I have to be explicit to the student about what I ' me to think . Sometimes I am explicit and sometimes I am implicit f e but sometimes I have to be explicit when I am doing that need to ing them so I ca n't be more explicit I ca n't be more direct and y cational environment is very explicit anymore . It used to be much re . It used to be much more explicit . So now , I have a question women are usually much more explicit about it . They say , I feel plicit cues than the sort of explicit discussion . But . I do n't t s you just have to be really explicit and say to students you 're d n't think there 's anything explicit about what I do that 's emoti I think it needs to be more explicit you know I like the idea of b do think that it needs to be explicit it needs to be clear we need	1 More Full 2 More Full 3 More Full 4 More Full 5 More Full 6 More Full 7 More Full 8 More Full 9 More Full 10 More Full 11 More Full 12 More Full

Figure 5.31: Concordance line of 'explicit'

The word *explicit* appears 12 times in this dataset, and it is used to describe a need for clarity and directness in communication, often in contrast to *implicit* communication. Supervisors in these excerpts suggest that sometimes they need to be more explicit to ensure that their message is understood, and that training programmes for doctoral supervision should be more explicit to promote clear communication (Section 6.6). This suggests that the doctoral supervisors used the word *explicit* to emphasise the importance of clear and direct communication with their students.

Based on the lexical items used in the supervisors' dataset, we can see that supervisors tended to use language that is clear, explicit, direct, and straightforward when communicating with their students. Feedback is the core element that frequently occurred when tracing the context of communication in the supervisory dialogue. *Feedback* is the 11th keyword as Table 5.6 indicates, with an LL=191.58 and LogRatio=7.19. It occurs 31 times in this dataset: it should be noted, in addition, that supervisors also discussed feedback without explicitly drawing upon the word *feedback*. The focus on students' performance, advice provision, and emphasis on honesty and frankness were central aspects of the feedback process. See Examples 18)-21) below.

- 18) you need to be able to be frank with people about when things are going well and when things are going badly, and you know, if you have a

rapport and you have trust in each other and you have a good well-developed relationship, then you can say: "this isn't going that well right now, and you need to do something about it" without it, you know, having a fundamentally damaging impact on our relationships.

19) sometimes it's just about how you change language I use that you know instead of ... instead of [saying] 'what have you done?' [I say] 'what have you achieved?' because achievement has a positive thing... and in terms of self-esteem, sometimes you just have to be really explicit and say to students: "you're doing well ... stop picking on yourself".

20) sometimes the feedback that somehow create a lot of different emotions it is very important to clarify.

21) I always stress to the student that whatever I'm saying ... whatever I am commenting, whether it's positive or negative, it's all to help them to develop. It's not about criticising it's not about saying you are doing bad ... Sometimes the language I use is very straight forward. The students may feel that they are not receiving the support, but I'm telling them that when I'm honest with you, this means that I am helping you.

These statements show that supervisors value clear, direct, and explicit communication with their students. The supervisors use words such as *open*, *explicit*, *direct*, *clear*, *straight*, and *straightforward* to describe their communication style. This suggests that they (believe that they) prioritise clarity and transparency in their interactions with students. Additionally, the supervisors appear to value honesty and frankness when providing feedback to students. They use words such as *honest* and *frank* to describe their approach, and they emphasise that their feedback is intended to help students develop, rather than to criticise or judge them. Supervisors also seem to be aware of the potential emotional impact of their feedback on students. They suggest that changing language to focus on positive outcomes and achievements can have a positive impact on students' self-esteem. They also recognise that feedback can create a range of emotions and emphasise the importance of clarifying feedback to avoid misunderstanding and negative emotional reactions (cf. Gurr, 2001; Vilkinas, 2008; Wisker et al., 2010; Ismail et al., 2013).

Supervisors' use of language that is straightforward, honest, and positive suggests that they are able to communicate with students in a way that fosters trust and mutual respect. Supervisors' statements suggest that they display EI characteristics in their communication and interactions with students.

Supervisors stressed that they pay attention to the language they use to deliver various kinds of feedback. There is an interlink between the supervisor's intellectual support and emotional support, where supervisors do not only pay attention to the quality and preciseness of feedback, but also to the manner in which feedback is delivered, showing an awareness of the impact their feedback can have on their students as well as the mis-understanding and potential conflicts that can arise from communicating feedback (cf. (Doloriert et al., 2012)). They stress also that they need to be honest with their students to help them develop, and what helps being honest and direct is developing a good supervisory relationship (see Example 5).

Effective communication and EI are considered two sides of the same coin (Sinha and Sinha, 2007). According to research studies by Vilkinas (2008), Wisker and colleagues (2010), the combination of positive communication and constructive feedback has the potential to enhance the academic and emotional well-being of research students. This approach can not only maintain their motivation, but also increase their confidence and alleviate stress.

A substantial part of the supervisory discussion in this dataset was dedicated to addressing and discussing expectations, which are represented in the 15th key semantic field of *Expected* (with LL: 64.31 and Log Ratio: 2.55). This is represented by terms like *expectations* (11), *expected* (5), *expect* (4), *expectation* (2), *high expectation* (1), *expecting* (1) and *expects* (1). See Figure 5.32 for the concordance lines of *expectations*.

11 occurrences.		Extend context
ment in it and they do have a lot of	expectations	and it requires a lot of effort not o
re doing PhD . They do have the same	expectations	... they are coming from different ba
at the same time students have these	expectations	to come to University and do a PhD th
sense of how things work what their	expectations	are what their demands are they could
sometimes inaccurate in terms of the	expectations	and the requirements and so on so tal
nges in working out what exactly the	expectations	are in our educational system and of
.. how the system works and what the	expectations	are then losing time losing time whic
ies and stress come from unrealistic	expectations	and objectives which ca n't really be
know pointing out they are based on	expectations	which are unrealistic I 'm no expert
nd puts into context to say you know	expectations	are always so much higher than realit
of communication style sometimes and	expectations	I often find that international stude

Figure 5.32: Concordances of 'expectations'

The analysis of the use of *expectations* in the supervisors' dataset suggests that often it was used when describing international students' expectations. The expressions: 1) 'expectations which are unrealistic', 2) 'unrealistic expectations', 3) 'expectations are always much higher than realistic', 4) 'inaccurate in terms of the expectations' were used to describe and discuss international students' idealistic expectations, as well as the potential impact of these expectations on their emotional state, self-regard and work progress (see Section 6.6). See for instance the excerpts below.

- 22) I have certainly seen students who were kind of quite worried and concerned about things in those... yes ... there are loads of circumstances where I have felt the need to kind of step in and offer necessary reassurances. As I said very often their anxieties are caused either by the student not having a realistic expectation of themselves in terms of setting themselves too ambitious set of objectives ... or not really grasping what is required of them and what the PhD requires them ... and then their anxieties and stress come from unrealistic expectations ...
- 23) when somebody says to me 'oh you know I'm doing such and such and this didn't happen', I think it puts it into perspective sometimes and puts into context to say you know expectations are always so much higher than realities. And I think sharing those experiences is quite a positive thing and sort of ... just picking on the emotional intelligence stuff ... sharing I think emotional experiences from an objective standpoint can also alleviate some of those struggles.

Supervisors emphasise the notion of openness to facilitate communication and allow supervisors to embrace students' diverse cultural backgrounds and expectations. This includes (effectively dealing with) students' desire for perfection in research, a significant hierarchy between students and their supervisors, unrealistic expectations, cultural differences with regards to the notion of expressing oneself and ways of signalling concerns openly to supervisors. Openness, according to the supervisor dataset, is linked to creating a trustful and safe atmosphere in which to share emotions. A lack of open and honest communication makes it challenging to identify the challenges faced by both students and supervisors(Haksever and Manisali, 2000). Harnessing open communication is essential in the supervisory relationship and can be harnessed through supervisor embodying dispositional qualities such as empathy,

which can help them understand their candidates' perspectives and communicate effectively with (Buirski, 2021). Abiddin (2007, 11) asserts that effective communication between students and their supervisors is the paramount factor in the supervision process.

Setting high expectations is seen among the factors that incites anxiety. Explaining to students the PhD requirements and setting realistic expectations can reduce that anxiety, which supervisors claim they do. When it comes to students' concerns and struggles as well as setting high expectations in seeking perfection in their research, which increased their anxiety levels, openness in communication tends to reassure them and boosts trust and rapport in the supervisory relationship (see Section 4.1.2.3). This can be seen in this dataset in the form of empathic communication. See for instance Example 10), where the supervisor used empathic communication through offering support to the student and acknowledging that they may feel isolated and alone. The supervisor's offer to support their student demonstrates an empathic response to the student's. The dataset also reveals that the more EI-focused supervisors tend to engage in identity shifts to meet their students' needs . Significant terms, in this regard, include, *colleague* (4), *mother* (4), *friend* (5), *coach* (2), *guide* (1), *anchor* (1), where communication alters based on that. Supervisors routinely indicated the following, for example

- 24) well, I am that hypothetical friend.
- 25) So sometimes I say, Okay, let's take away that supervisory relationship. Now.
It's more like I'm concerned colleague".
- 26) it's almost like becoming a second mother.
- 27) well, I 'm being that friend to you now.

In these examples, supervisors' use of the expressions 'friend', 'concerned colleague' and 'second mother' are used in this context metaphorically to describe the nature of their relationship with their students. These expressions are used to imply certain levels of closeness, equality and care. Supervisors were using the word 'friend' in a hypothetical sense, implying that they are trying to establish a friendly and supportive relationship with their students. This is a metaphorical use of the word friend as the supervisor is not actually the student's friend in the traditional sense, especially given that supervisors were implying that they are shifting from an academic identity to a

more informal and friendly identity. Additionally, the supervisors' use of the phrase 'concerned colleague' was also used metaphorically, as it suggests that the supervisor is not simply a professional colleague, but also had a level of concern and care for the student's well-being. Furthermore, there is a metaphorical use of the word mother, as it suggests that the supervisor is not a professional mentor, but had a nurturing and supportive role in the student's life. This is in line with Gunasekera et al's (2021), where one student identifies her supervisor as a parent, which suggests a sense of trust, support and emotional attachment in the student-supervisor relationship.

Some examples indicate that when notions of clarity and directness are not reciprocated, communication can be hampered, especially where cultural differences are found to be a key factor.

28) I think it's really a difference of communication style sometimes and expectations. I often find that international students are less likely to talk about their emotions.

29) I mean obviously it's easier to form ... it's easier to have small talk with somebody when you share a culture. It's much more difficult if there ... the more ... the more differences there are, the harder it becomes. It's very difficult.

Supervisors find that communicating with students from same culture to be easier than international students. This was mainly noticed by supervisors when trying to find ways to understand what their students are going through.

30) I think it certainly can raise a challenge to supervise student who are not clear about how they feel. Because you have to rely on more implicit cues than the sort of explicit discussion ... because talking about it [emotion] means you can resolve it fairly quickly, and not talking about it means it might take a little bit longer to get to that resolution.

31) I think it's up to the supervisor to find out what works best for your students without negatively impacting on the relationship between the student and the supervisor because, again, "culturally linked" not every student is as direct in in the expression of the desires of their wishes.

Empathic communication and approachability are seen as essential elements when considering students from diverse cultural backgrounds as examples 8) and 20) indicate. Wisker (2012) and Delamont et al (2004) emphasise that the supervisory

relationship plays a vital role, especially in contexts where students have diverse social backgrounds, including international students who may encounter conflicting social and cultural norms with their supervisors' expectations of establishing positive professional and personal relationships. Goleman (2018) suggests that cross-cultural interactions, in particular, are prone to misunderstandings but that empathy can serve as an "antidote" (see Section 6.6).

Persuasive language in empathic communication appears to be predominant in this context when tracking the types of communication that occur between supervisors and their students. Persuasive language is used extensively to influence students' moods and behaviours. See the following excerpts:

32) So, parking academics to the side and saying "Okay, look! Let's talk about you ...you need to have rest". It's sort of like adjusting situations and adjusting relationships sometimes and saying: "Look! I'm now talking to you as a concerned colleague. Yeah, because PhD students are colleagues to us, you contribute to the research environment, you contribute to the community, in the department, you are future researchers, you are people who are going to be publishing alongside us ... with us ... against us ... you are colleagues".

33) It's just simple things like: "tell me what you've successfully done in the last couple of weeks since I saw you". And that makes people frame it as a success.

Several linguistic features in these two statements indicate aspects of EI such as empathy in 'Let's talk about you'. The use of language to manage relationships in saying 'adjusting situations and adjusting relationships', the use of positive language to motivate students and frame success positively 'you are colleagues', 'you contribute to the research environment and community', 'successfully done', 'frame it as a success'. All these linguistic features refer to EI associated skills, specifically, empathy and relationship management, which involve inspirational leadership: guiding and motivating with compelling vision, teamwork and collaboration: cooperation and team building Developing others: bolstering others' abilities through feedback and guidance and change catalyst: initiating, managing, and leading in a new direction (Goleman et al., 2013: 39). These examples indicate how supervisors ensured to use positive

language that motivates and inspires students to develop the confidence needed to pursue their studies.

5.2.5 Summary

The supervisory dialogue in this context is featured by EI aspects of teamwork and collaboration. As part of this, supervisors encourage their students to attempt, where possible, to reduce the hierarchy between them (see Examples 11)-12)), actively try to build and then maintain bonds with their students to facilitate communication, and encourage discussion (rather than lecture-type interactions). As the dataset shows, supervisors who participated in this study tended to agree that such discussions should be characterised by openness and honesty (see Examples 18)-21)). This was seen as a crucial component in allowing supervisors to effectively mobilise their students towards a vision of success and ability to handle the research project (see Examples 6)-7), 9) and 11)). Participants suggested that this can be accomplished through inspiring and leading them toward a shared objective, which is the effective completion of their research project. Such influence is reflected in the academic and emotional support supervisors offer to their students as they develop (see Examples 8)-10), 14), 17)). All of these aspects are inherently connected and complimentary, and they define the ultimate outcome of EI as portrayed by Goleman's EI model in Relationship Management (see Section 2.2.2).

The types of communication that were featured in the supervisory dialogue provided evidence of how EI associated skills are constructed linguistically. When tracking the aspects of communication, we can see what featured as empathy in supervision. This was through first building on their own experiences as a means to help them relate to what their students are feeling, but also how this Empathy was enacted while they were communicating with them starting from evaluating their own feelings and experiences and what causes such emotional experiences. Supervisors seem to use this as a reference so that they can successfully evaluate their students' states and feelings, and therefore manage those feelings in the form of help and support (see Examples 8)-10), 14)-15) and 17)). the analysis of semantic subdomains such as *In power*, *Confident* and *Helping*), revealed various approaches to managing students'

emotions, all-encompassing the concept of supervisors' influence. These approaches involved utilising positive language, reflecting on and sharing personal experiences, providing assistance and support, offering personalised guidance and reassurance, and monitoring motivation and pressure levels.

The dataset demonstrates the confluence of EI skills and how each is dependent on the other. According to Goleman (2001: 5). Emotional Self-Awareness is required for efficient Self-Management, which predicts stronger Social Skill. He adds that Self-Awareness is a precondition for Social Awareness (especially Empathy), which is a prerequisite for Social Skill. Therefore, managing relationships effectively necessitates a foundation of Self-Management and Empathy, both of which entail Self-Awareness.

EI in this context was characterised by supervisors' ability to manage the supervisory relationship, which includes empathy and social skills including cultural sensitivity, open communication, friendliness, sharing personal experiences of success and failure, showing care, passion and interest in students' ideas and concerns, influence and leading to change towards an independent and confident student. As this chapter reveals, these were the EI manifestations in the supervisory context that I have been able to capture using the USAS tag set in conjunction with a "close reading" of certain target words' concordance lines (to determine context-in-use) and their statistical collocations (i.e., the words with which they keep company, above the level of chance). The dataset of both students and supervisors revealed the presence of EI skills. However, when examining EI-related skills specifically in the supervisor's dataset, there was a noticeable prevalence of cultural sensitivity. This was particularly evident in the exploration of empathy, communication, and the management of the supervisory relationship within the context of supervising internal students. The next chapter will provide an overview of the main findings and implications for future research and will conclude with a summary of the study contributions in the field of EI and doctoral supervision.

6. CONCLUSION

6.1 Introduction

This thesis investigated the role of EI in the context of doctoral supervision from the perspectives of Algerian international PhD students and their UK-based supervisors. This was achieved through conducting qualitative questionnaires and semi-structured interviews with eight students and five supervisors, and two analyses were carried out: thematic analysis (TA) of the questionnaire and interview data collectively, and corpus linguistic analysis of the interviews. The aim was to explore participants' perspectives on the role of EI and its associated skills in the supervisory relationship and students' satisfaction, as well as the linguistic manifestations of EI in this context. The importance of this research lies in providing insights into the role of EI in doctoral supervision and how to improve the supervisory process for better results and experiences. The PhD journey is a journey of discomfort (Laufer and Gorup, 2019; Barnett, 2007), and EI has been proven to enhance an individual's performance in a team and coping mechanisms, as well as relationships with others (Zhou et al., 2020). However, most studies on the PhD journey focus on the intellectual aspect (Baptista, 2014), while students' well-being and the supervisory relationship are often overlooked. Furthermore, unlike previous studies that primarily focused on measuring EI through standardised tests and scores, this study delved deeper by examining the linguistic dimension of how EI has been framed in the context of doctoral education (see especially Chapters 4 and 5). By exploring the language used to discuss EI, this study provided a more nuanced understanding of how EI is conceptualised and utilised in a doctoral supervision setting. This approach can shed light on the role that language and discourse play in shaping our understanding of EI and its potential applications in academia.

This chapter serves as a conclusion to the study. It will summarise the main research findings and assess the extent to which the research aims, and research questions outlined in Sections 1.3 and 1.4 have been addressed (see Section 6.2). The chapter will then discuss the value of the study and address its contribution based on the

findings (Section 6.3). The limitations of this study will also be reviewed (in Section 6.4), and recommendations for future research opportunities and implications will be proposed (see Sections 6.5 and 6.6).

6.2 Assessing the extent to which the study aims have been met

The purpose of this study was to gain insights into how EI impacts doctoral supervision in academia, based on the experiences and viewpoints of both (UK-based) international students and supervisors. The study aimed to understand how these experiences shape their perspectives on the role of EI in doctoral supervision and its impact on the supervisory relationship, both personally and academically.

The subsequent sections provide a summary of the outcomes derived from the analysis by discussing each research question addressed in this study.

6.2.1 RQ1: What are Algerian PhD students' and UK-based supervisors' understandings of EI?

The participants in this study had varying levels of understanding when it comes to the concept of EI, and these varying levels of understanding were shaped by their sources of knowledge (see Sections 4.1.1 and 4.2.1). A majority of participants associated EI with emotions and emotional knowledge, while only a few alluded to the connection/interaction between emotions and thinking (cf. Section 2.2.1). Although most students and supervisors were able to associate EI with intrapersonal aspects such as self-awareness and self-management, few linked EI to interpersonal skills (see Sections 4.1.1 and 4.2.1). This lack of understanding can be attributed to the fact that EI is not extensively explored in the HE context, both in Algeria and in the UK. These divergent understandings had an impact on the participants' conceptualisations of EI, which in turn influenced their attitudes toward the role of EI skills such as *empathy* in HE and doctoral supervision in particular (see Sections 4.1- 4.2).

It is pertinent to clarify that the objective of this research question was not to assess the participants' levels of (or expertise in) EI. Instead, the aim was to establish a

baseline for the extent to which there is an understanding of the concept at a broader level among the participants. This understanding was found to help facilitating the interview discussion.

6.2.2 RQ2: what are the specific EI-related skills and behaviours exhibited by doctoral supervisors in this context?

The findings show that students perceived their supervisors as emotionally intelligent when they exhibited empathy, care, support, and inspiration in their practices as well as providing a safe learning environment (see Sections 4.1.2; and also Gunasekera et al., 2021). In moments of stress and crises, such as the challenges and uncertainties faced while conducting doctoral research (see Sections 4.1.2; 4.2.3-4.2.5) and the disruptions caused by the Covid-19 pandemic (see Section 4.1.2.2), certain supervisors exhibited EI skills to address these challenges. This was evident in supervisors' responses, who reported that their students experienced a variety of negative emotions that impacted their progress, and that applying EI skills could help their students overcome their stresses, self-doubts, and anxieties related to (perceived and real) research challenges (see Sections 4.2.4 and 5.2.4). This indicates that emotions play an important role in the research and supervisory processes and that these emotions can have a negative or positive impact on the students' experiences and completion times (Morrison-Saunders et al., 2010; Barry et al., 2018; Baptista, 2014; Anttila et al., 2021). Communicating feedback was the core element both students and supervisors discussed when it comes to the challenges faced during their supervisory relationship as well as motivations (see, e.g., sections 4.1.2.4; 5.2.4). Supervisors expected that miscommunications were mainly due to cultural and individual differences (see Section 5.2.4). Some students saw that the way in which feedback was delivered was sometimes harsh and unconstructive, which led to incongruence in feedback perception and practices (see Sections 4.1.2.4). This led students to experience stress, anxiety, and frustrations and demonstrates the extent to which feedback can have an impact on students' emotional states and abilities to work on their projects (see Sections 5.1.4 and 5.1.5; and also Wang and Li, 2011; Ismail et al., 2013; Wisker et al., 2010). On the other hand, constructive, considerate,

and supportive feedback had a positive influence on students' motivation and academic performance (see Sections 4.1.2.4 and 5.1.5).

While not all participants explicitly attributed supervisors' practices to (generic or specific) EI skills, the findings nonetheless reveal that supervisors displayed EI in a variety of ways through their conversations with their students, communicating feedback, providing support and motivation, sharing personal experiences and positive reframing to display empathy and emotion management. See the experiences narrated by students and supervisors in Sections 4.1; 4.2; 5.1, and 5.2.

Supervisors' self-awareness and self-management were captured in supervisors' as well as students' answers. Supervisors reported that they recognised when they are personally feeling angry, frustrated, or overwhelmed and that they took steps to manage their emotions so that they did not negatively impact their interactions with supervisees (see Section 4.2.5). They recognised the importance of identifying the root causes of their emotions in order to manage them properly (cf. (Doloriert et al., 2012; Morrison-Saunders et al., 2010; Han and Xu, 2021). They took time to think critically about their own supervisory styles and make adjustments as needed. Self-aware doctoral supervisors regularly reflected on their own practices and considered how their actions and decisions impacted their students (see, e.g., Section 4.2.5). This indicates the importance of supervisors' EI, and particularly self-awareness and self-management qualities when supervising, which is in line with many studies that suggest that doctoral supervisors manage their emotions in various ways during the supervision process, and that attending to their emotional well-being is important for successful supervision (Doloriert et al., 2012; A. Lee, 2008; Roed, 2012; Han and Xu, 2021).

Students appreciated that their supervisors are considerate when interacting with them (see Section 4.1.2.1). Interestingly, one student reported that she noticed a change in her supervisor's attitude from being harsh and inconsiderate to a more caring and considerate supervisor when recognising that her behaviours were impacting her, i.e., the supervisor became more aware, and this was found to help elevate their student's stress and anxiety (see Section 4.1.2.4). This suggests that the supervisor may have possessed EI skills, but that they do not necessarily apply them in such contexts unless the students explicitly voice their needs (see Section 4.1.2.4). In one

supervisor's response, however, he stated that academia is not a place to care about students' emotions. This can be problematic, however, given that students' responses indicated that they needed considerate supervisors at times of crisis and tension (see Wang and Li, 2011; Ismail et al., 2013; Wisker et al., 2010). Moreover, supervision is a personal relationship where students and supervisors engage in sharing ideas and concerns within the realm of research, and hence, they develop a relationship that enables them to communicate. Communication in this case involved mainly feedback and guidance as to how to conduct a research project. Given that communication is the core component in this regard, it was pertinent to look at how supervisors communicate feedback and guidance and supervise their students. Hence, being aware of the manner in which supervisors communicate with their students and the impact their feedback can have on their students should not be overlooked, as the findings indicate that students felt that the language their supervisors used impacted their well-being, self-esteem, physical health, and cognitive abilities (see Sections 4.1.2.4; 4.2.4). Students, according to supervisors and students themselves, experienced feelings of excitement, motivation, inspiration, confidence, sense of belongingness to the academic community, as well as feelings of anxiety, stress, depression, isolation, and dissatisfaction when interacting with their research and supervisors (see Section 4.1.2.4). This suggests that students were impacted by their supervisors' practices (in line with the research findings of, e.g., Gunasekera et al., 2021; Cotterall, 2013; Sambrook et al., 2008).

Cultural awareness was found to be key when displaying EI skills. Supervisors reported that much of the misunderstandings that occur between them and supervisees are due to cultural differences and that their awareness of this matter could help them manage stressful situations (see Sections 4.1.2.1; 4.2.3; 4.2.4; 5.2.3; 5.2.4). Supervisors reported that cultural differences were a significant cause for issues when it comes to communicating feedback. Students' misunderstanding of feedback was found to lead to them repeating the same mistakes (see Section 4.2.5). Supervisors such as Sophie attributed this issue to the fact that international students view her as a higher authoritative figure, while Lisa noticed that students expect their supervisors to tell them what to do rather than guide them concerning what they might/could do (see Sections 4.2.3). This is in line with a study by Almoustapha and Uddin (2017), who investigated the reasons behind students' repeating the same

mistakes. Their findings suggest that that could be due to students' misconceptions about hierarchy and power dynamics. This problem is amplified, according to Basturkmen et al (2014) and Almoustapha and Uddin (2017), for students who do not have English as their first language or come from diverse cultural backgrounds (Chugh et al., 2022). This, in turn, can reflect on students' inability to articulate their concerns and questions. Supervisors from this study suggested that although the UK HE is a diverse institution, training still needs to be considered to be able to better supervise students from different cultural backgrounds. Supervisors' display of EI was characterised by a cultural sensitivity that was found to enhance its effectiveness in the HE supervisory context. This is in line with Wang and Li's (2011) claim that having cultural awareness may help supervisors to become empathic and provide suitable feedback to a particular cultural group. Moreover, several studies support the argument that EI is related to an individual's ability to be culturally sensitive. Guntersdorfer and Golubeva (2018), for example, argue that empathy, an EI component, is important for intercultural education and Dimitrijevic et al. (2019) found that emotional vocabulary, a marker of the ability to understand emotions according to Dimitrijević et al. (2019), predict intercultural problem-solving. Additionally, Aydemir and Kalin (2021) uncovered a meaningful and moderate positive association between intercultural sensitivity and EI in individuals.

Supervisors' displays of EI were captured in many supervisory-related practices as observed by students and claimed by supervisors. Sharing personal experiences was significant subject students and supervisors mentioned when discussing the most helpful practices. Both students and supervisors saw that supervisors' talking about their previous experiences as PhD students and sharing experiences of success and failure was helpful in normalising students' struggles, providing empathy and reassurance accordingly (see Sections 4.1.2.2; 4.1.2.4 and 5.2.2). Some students reported that they felt inspired by their supervisors' stories of being imperfect PhD students and going through an imperfect and flawed journey themselves. For example, one student stated, 'It gave me hope if she went through [similar struggles] and she eventually got to have her PhD and succeed, so can I' (see Section 4.1.2.2). Rapport-building language refers to a method of connecting and negotiating relationships in which the emphasis is on exhibiting commonalities and matching experiences (Tannen, 1991). In this study, supervisors often referred back to their

experiences as PhD students when they attempted to communicate with their students in order to support them and develop rapport with them (see, e.g., Section 4.2.5).

Supervisors' displays of EI were also captured in their use of positive language of encouragement and affirmations. Supervisors believed that this approach alleviated students' stress and motivated them to work harder, which is in line with students' responses who valued these practices and found that they promote rapport with their supervisors since encouragement promotes rapport as studies suggest (Schlosser and Gelso, 2001; Wong et al., 2020). Furthermore, supervisors reported that they had struggled to understand their international students' problems. EI was found to alleviate that cultural clash between students who were initially reluctant to share their concerns with their supervisors with the latter often striving to uncover what their students were struggling with so that they might support them properly. Supervisors' approachability was key to students being able to voice their concerns to their supervisors (see Sections 4.1.2.1 and 4.2.3). Rapport was also found to be reinforced when supervisors showed concern and care for their students. This, for students, was appreciated as they sensed the humane relationship that supervisors fostered rather than a robotic relationship. Emotionally intelligent supervisors were found to be those who are active listeners, friendly and approachable, and show care for their students as a whole and not only for the knowledge product they are producing (see Sections 4.1.2.1 and 5.1.4). This enabled students to openly express themselves and share their concerns and struggles with their supervisors (see Sections 4.1.2.1-4.1.2.3). Rapport was also found to be key in communicating feedback. Supervisors reported that good rapport with students enabled them to speak to them openly and point to the areas that need improvement without fundamentally harming the supervisory relationship (Jairam and Kahl, 2012; Wisker et al., 2012). This was evident in students' responses as well when they found it valuable when their supervisors exerted a moderate level of pressure, as it served as a source of motivation for them to put in extra effort. This indicates that the supervisors possess the skill of effectively managing their students' emotions (see Sections 4.1.2.4 and 5.1.5). This in line with studies such as (Yarwood-Ross and Haigh, 2014; Chugh et al., 2022; East et al., 2012) that address the connection between feedback effectiveness and the supervisory relationship (see Section 2.3.7).

6.2.3 RQ3: How do PhD students and supervisors perceive the role of supervisors' EI in this supervisory relationship, and how does this impact students' academic success and well-being (if at all)?

There have been varying views on the importance of EI in doctoral supervision. As indicated in Section 6.2.2, some participants saw that good supervisors are distinguished by their level of EI and their ability to effectively transmit knowledge and expertise while fostering the academic and personal growth of their students. This is in contrast to the view of one supervisor that academia and supervision are not places to be concerned with students' emotions, as supervisors are not trained to do so (see Section 4.2.2). Another perspective that was discussed by participants is that while EI may not be essential for supervisors when dealing with highly capable students who require minimal supervision, it remains essential as in most cases students struggle and require significant support.

The safety of an environment is very important for a positive relationship. The results of this study suggest that such safety can be established and/or enhanced by supervisors' displays of EI. As discussed in Section 6.2.1, participants' understanding and conceptualisation of EI and, thus, its role in doctoral supervision can be based on their personal experiences and the extent of knowledge they had about EI. The findings reveal that students who have experienced feelings of anxiety and stress, but have had positive relationships with their supervisors, tended to appreciate the role of EI in such contexts. Moreover, the findings show that their positive relationship with their supervisors helped them approach their supervisors with their concerns and struggles (see Sections 4.1.2.1 and 4.2.3). Students also reported that supervisors' encouragement, as well as constructive and considerate feedback had a positive influence on their self-esteem and well-being as well as their motivation to work on their projects (see Section 4.1.2.4). On the other hand, a student who has experienced similar disturbing feelings of stress and isolation, and had a negative relationship with her supervisor, reported that supervision is not about EI, but rather about professionalism which for her is opposite to EI (see Section 5.1.4). The latter viewpoint was supported by one supervisor's statement who regarded supervision has nothing to do with emotion, but, rather, to do with expertise and professional

development (see Section 4.2.2). However, this was significantly opposed by the other supervisors' stances, who value the role of EI in supervision. Albeit to different degrees, some supervisors saw that effective supervision is featured by EI (see Section 4.2.2), while other supervisors stated that EI is a good quality to acquire in supervision to enhance doctoral supervision and students' experiences, yet, it does not necessarily have a significant influence on their academic achievements (see Section 4.2.2). Overall, there were various opinions with regards to the role of EI in doctoral supervision, including that EI is what distinguishes good supervisors from those who are not. This claim was supported by their belief that expertise knowledge can be found in any supervisor, but the manner in which they transmit that knowledge and expertise and thus develop student's academic (as well as) personal growth is what makes a difference (see Section 4.2.2). There was another claim that EI may be not essential for supervising students who are capable and do not require much supervision and support, however, they still saw it as crucial since, in most cases, students struggle and need support (see Section 4.2.4).

As previously noted, some supervisors highlighted the importance of EI training for supervisors as well as students, including training in cultural sensitivity, to ensure a better supervisory relationship that helps students achieve their potential and allow supervisors to enjoy their work. According to Guntersdorfer and Golubeva (2018), empathy is the foundation upon which EI is built. Without empathy, the power to manage emotions, cope, and respond correctly in an intercultural engagement (or in any effective interpersonal relationship) would be impossible. Dressler's research, as cited by Guntersdorfer and Golubeva (2018), advocates for greater attention to be paid to empathy and EI when exploring intercultural competence. Research conducted by Gilar-Corbi et al. (2018) suggests that teaching EI to students in Higher Education is feasible, and that universities can provide an ideal setting for enhancing emotional management, which can enhance various learning experiences. In fact EI enhances social and emotional learning as Cherniss and Goleman (2001) maintain. Several participants, in this study, saw that EI is crucial for effective communication and mutual understanding between PhD students and their supervisors (see for example Sections 4.1.2.1 and 4.2.2). It was also highlighted that it is important for students to develop their own coping mechanisms during their PhD journey (see Section 4.2.2). However, EI and emotion in general are often not acknowledged in researchers' accounts, and

are often neglected in supervision training programmes, as some supervisors tend to view the PhD as purely an academic pursuit rather than a holistic experience involving skill-building, community-building, and personal growth (see Sections 4.2.2 and 4.2.4; see also Doloriert et al., 2012; Cotterall 2013). This academic focus can sometimes overshadow the human aspect of the relationship, causing supervisors to overlook the emotional needs of their students. As a result, some supervisors felt that they needed to shift their focus from academic work to supporting their students as people. Supervisors such as Lisa and Sophie declared that there is a need for training in EI for students as well as supervisors to be able to communicate effectively and manage critical situations (see Section 4.2.2). Goleman (2001) points out that creating an open environment with clear channels of communication is critical to success. He argues that people with communicative competence are successful in the exchange of emotional information, deal with tough issues directly, listen well and appreciate sharing information fully, support open communication, and remain responsive to both good and bad news.

6.2.4 RQ4: How are EI associated skills framed linguistically in doctoral supervision context?

This research question has been explored through both quantitative (Corpus Linguistics) and qualitative (close reading of some of the concordances and collocations) lenses. EI has been studied extensively in various disciplines, including psychology and business leadership. However, no attention, to the best of the researcher's knowledge, has been paid to the linguistic aspect of EI discourse, and how this might influence its interpretation and application in different contexts. This study explored the language used to talk about EI in the context of cross-cultural communication between Algerian international PhD students and UK-based supervisors. Using the corpus linguistic approach combined with a close reading of some of the linguistic patterns, I have been able to analyse a corpus of interview data to identify patterns in the language used by students and supervisors when discussing (the relevance of) EI in a HE context.

The analysis of students' and supervisors' data sets reveals that students and supervisors used a variety of linguistic features pertaining to emotions and EI

associated skills (see Sections 5.1 and 5.2). Using USAS, the analysis identified several patterns in the language used to talk about EI. The language used to discuss emotion and EI often involved the use of metaphors and figurative language, to convey complex emotional states and experiences. For instance, both students and supervisors frequently used metaphors related to stress, pressure, and support (*pressure cooker, feeling empty, like empty shell, mother, hypothetical friend*), when conveying their experiences and emotions in relationship to this academic context (see Sections 5.1.3 and 5.2.4). Certain adjectives were captured such as *empathetic* and *understanding*. These were commonly used to describe emotionally intelligent supervisors (see Section 5.1.4). I found, in addition, a statistically meaningful focus on the idea of emotional management, with several participants discussing the importance of being able to manage one's own emotions and respond appropriately to the emotions of others (see Sections 5.1.5 and 5.2.3). These findings suggest that the language used to talk about EI reflects an emphasis on various EI aspects in this context mainly empathy, emotion management and relationship management (see Sections 5.1 and 5.2). The use of certain adjectives and metaphors may also influence how EI is perceived and evaluated by others. For instance, in the context of this study EI was described as *fundamental, crucial, essential*, which indicates that EI is highly valued in this context. Furthermore, the findings also highlight the importance of considering the social and cultural context in which EI discourse is used. For example, in Algerian culture, it is more common to use family names as a form of respect when addressing someone in a position of authority.

A combination of the quantitative corpus analysis of students' and supervisors' datasets and a close reading of such findings (via, e.g., the concordance lines of specific target words and/or their collocates, i.e., the words with which the target words statistically co-occur) have helped in providing a deeper understanding of how EI is linguistically conceptualised and discussed in the context of doctoral supervision. The Thematic analysis investigated mainly participants' perspectives on EI associated skills and discussed some of their observations. By adding this corpus analysis, I have been able to focus on the linguistic construction of supervisors' EI skills.

In supervisors' data set, there is the use of open and direct expression to refer to directness in their communications. However, in students' data set, some of their

expressions reveal the opposite (*'I prefer to be professional'*; meaning that students do not want to express their emotions and concerns directly to their supervisors). Students seem to prefer direct communication when it comes to appreciation of their work: “when telling me ‘Well done, I was really happy. That made me feel less anxious”; “I received a review from my supervisor saying ‘wow! I'm really impressed. Bravo’, I was so happy”; “they emphasised that I was doing great job”. While when receiving rigorous feedback, students still seem to prefer hedging or indirect communication “if she is writing you feedback, she tells you ‘Wow! This is interesting. Well, reconsider this part’”; “Well, this is interesting. If I were you, I would do ...”; “they tend to give equivalence like ‘this is a good point’ but then they move to the other one ‘this is a good point, but also it needs to be more illustrated’ or ‘have you thought about this part’”; “I appreciate how they make that balance between what's good and bad I have done. This makes it less painful”. These expressions reflect supervisors' use of indirect language when it comes to providing criticism, which was appreciated by students. This suggests that there may be cultural or personal factors that influence the way in which individuals choose to communicate. The students prefer direct communication when it comes to positive feedback, but may prefer hedging or indirect communication when receiving rigorous feedback. This suggests that students may perceive rigorous feedback as more demeaning and prefer a more indirect approach to mitigate the impact, which highlights the complexities of communication and the importance of taking into account the individual, cultural, and contextual factors that can influence how people choose to communicate.

6.3 The study's main contribution

This study provides insights into the role of EI in the context of the doctoral supervision of Algerian international students. It offers a repertoire of experiences relating to both students and supervisors and discusses their perspectives with regards to whether there are displays of EI in such contexts and, if so, the extent to which EI impacts the supervisory relationship and, hence, students' satisfaction with the supervisory process. This study is thus believed to be a valuable source for UK academics as well as those responsible for helping potential Algerian PhD students coming to study in the UK, in that it can offer valuable insights into the area that both Algerian and UK

education systems should take into account while preparing Algerian students to embark on their PhD journey or during the actual supervision process, especially given they represent an underrepresented student population in the UK context. The findings of this study also hold value for aspiring Algerian students, as it aims to enhance their comprehension of the supervisory experience in the UK and the expectations placed upon international doctoral students within this HE context. The study highlights several aspects that are found to be crucial and sometimes overlooked when it comes to supervision, that is, the emotional and cultural aspects of supervision (Erwee et al., 2013; Doloriert et al., 2012; Gilar-Corbi et al., 2018; Gunasekera et al., 2021; Lee, 2012; Buirski, 2022). Within this study, EI is believed, by some, to be the added ingredient that makes for a good supervisor. By way of illustration, supervisor-participants such as Lisa, saw that while knowledge and expertise are widely available in supervisors, the key distinction for effective supervision lies in the “how” of supervision and, in particular, the ways in which to approach students, which significantly influences their experiences (see for example Sections 4.2.2 and 5.1.3). Put simply, the supervisor is an essential element in students’ success. The psychological stressors that were found to hinder students’ ability to work on their projects, according to participants, could include the supervisory practices per se (see Section 5.1.3). This is in keeping with several studies, which indicate that one of the main reasons behind students’ attrition and withdrawal from the PhD is the supervisor and the supervisory relationship (Lynn McAlpine and Norton, 2006; Golde, 2005; Govendir et al., 2009; Bruce and Stoodley, 2013). Some supervisors such as Andrew stated that “Much of what does and can go wrong with a thesis is not down to the intellectual ability of a student so much as the emotional and psychological stresses which are involved” (see Section 4.2.2). Thesis writing is a demanding task that can place a significant amount of stress on a students’ mental and emotional well-being. This stress was found to lead to student procrastination, self-doubt, anxiety and depression, all of which can ultimately adversely affect the quality of their work. While intellectual ability is undoubtedly crucial in writing a thesis, it was not the only factor that determined success according to students’ and supervisors taking part in this study (see for example Section 4.2.2). Students who were struggling with emotional or psychological issues found it challenging to concentrate, be productive, and stay motivated (see Sections 5.1.3 and 4.1.2.1). Hence, it was deemed crucial for supervisors to demonstrate elements of EI in order to recognise the emotional and

psychological factors that can influence students' performance, and to provide support and resources to help them manage their stress levels and overcome any challenges that they may face (see for instance Sections 4.1.2.1 and 5.1.4).

This study provides evidence from students' and supervisors' accounts that EI has a crucial role in addressing the issues students and supervisors highlighted. EI was found to reduce the levels of hierarchy expected by Algerian students, which used to hinder open communication and expression on the students' parts (cf. (Schulze, 2012). Supervisors' displays of EI were found to tackle some cultural differences issues where, for instance, Algerian students were reluctant to express their emotions and concerns connected with their research projects (see Sections 4.2.3 and 4.2.4). By being empathic and supportive, supervisors could build rapport with their students who then were able to express themselves openly, which then saved time and effort, as supervisors indicated, to resolve issues before coming to a point where supervisors were no longer able to engage in solving problems (see Section 5.2.3).

The study makes several contributions to the field of doctoral supervision. Firstly, it highlights the importance of considering the social and cultural context in which EI discourse is used. The study identifies differences in cultural norms, such as language use, the influence of the expression and interpretation of emotions in the doctoral supervision context. This finding contributes to the existing body of knowledge on cross-cultural communication and EI training in doctoral supervision (Koh, 2020; Friedrich-Nel and Mac Kinnon, 2019; Wu and Hu, 2020), in the sense that both EI and intercultural communication skills are deemed essential in culturally diverse settings, and that emotions and EI perception and evaluation can be impacted by cultural factors (Karim and Weisz, 2010; Washington et al., 2013; Shao et al., 2015; Matsumoto and Hwang, 2012)). Secondly, the study also contributes to the theoretical understanding of the role of EI in doctoral supervision. The study identified that the supervisors' display of EI is highly valued by the students and positively impacts their motivation, engagement and productivity. This finding contributes to the understanding of the benefits of EI in academic settings (Gunasekera et al., 2021; Doloriert et al., 2012; A. Lee, 2012; Buirski, 2022). Thirdly, the study is believed, to the best of the researcher's knowledge, to be the first to investigate EI linguistically to try to understand the linguistic manifestations of EI. By analysing the language and discourse used to discuss EI in the context of doctoral supervision, this approach revealed how the understanding of EI was shaped by personal, social and cultural

factors that influence the way that students especially talk about emotions and their relevance in academic settings. For example, the language used to describe emotions may differ across cultures, which can impact how students and supervisors interpret and respond to emotional cues. Furthermore, the way EI is framed in academic discourse can shape its potential applications, as certain conceptualisations of EI may be more or less aligned with the goals and values of academia. Therefore, by examining the linguistic dimension of how EI is discussed and understood in academia, I can gain a more comprehensive understanding of the potential implications of EI in this context. This highlights the importance of acknowledging and addressing the cultural and linguistic differences in doctoral supervision.

In addressing these research contributions derived from gaps in the literature, this study can be utilised as a reference to supervisors on the extent to which EI can be beneficial when it comes to supervising doctoral students, especially if they seek to understand the Algerian PhD students' challenges and see how EI can address these challenges. International students, and Algerian students in particular, can use this research as a reference to what is expected from research students to pursue their PhD in a UK-based university. This study is also believed to help decision makers and institutional leaders to incorporate EI training programmes for supervisors as well as students to ensure both of them are well equipped to embark on this journey with more confidence. This journey is an opportunity to grow academically, personally and emotionally, and to build researchers and potential supervisors who are effective and supportive (see Section 6.6).

Throughout this study, the findings indicate that EI works alongside intellectual challenges rather than as a means to avoid them. For instance, EI has been useful for supervisors to aid their students manage their own emotions and focus on completing their studies successfully through shifting mindset and working on the tasks that need to be done rather than lingering with their emotions, with acknowledging that sometimes students needed validation and recognition as well as sufficient support from their supervisors for their struggles. EI, as investigated in this study, is not a replacement for intellectual rigour. Rather, it is understood to be a complimentary factor that interacts with the intellectual dimension of doctoral supervision. While this study sheds light on the role of EI in this context, it does so within the context of the doctoral journey's inherent intellectual demands and complexities (see, e.g.,

Gunasekera et al, 2021; Wisker et al., 2021 : see also 4.2.4, this thesis).

This study's findings emphasise the importance of EI skills - in particular empathy and effective communication - in addressing the emotional and interpersonal aspects of doctoral supervision. It does not, however, diminish the importance of intellectual engagement, critical thinking, and academic excellence in the doctoral process (cf. Doloriert et al., 2012; Johansson et al., 2014). This perspective highlights the significance of integrating both emotional and intellectual aspects of the doctoral journey, ultimately leading to a more holistic and effective supervision practices. It serves as a reminder that EI supplements and enhances the intellectual challenges that characterise higher education, providing valuable insights into the multifaceted nature of the doctoral experience (see also Wisker et al., 2021).

6.4 Limitations

The present study aimed to explore the experiences of Algerian international PhD students and their supervisors in the UK. There are some limitations that need to be acknowledged. One of the limitations of this study is the small number of participants. As this is mainly a qualitative study, the primary aim is not to seek generalisations. However, the small number of participants may limit the extent to which the findings can be applied to a wider population. This is despite the use of triangulation as a means of mitigating this limitation to some extent. The triangulation was achieved by conducting interviews with both Algerian PhD students and UK-based supervisors so that I gain insights from both perspectives and thus can draw on them to create a more holistic view. One limitation that could have been addressed here is the inability to have student-supervisor dyads as a means to seek a better understanding of supervision practices from both students and their supervisors. Having dyads could have provided a more detailed and nuanced understanding of supervision practices. Another limitation of this study is the impact of the COVID-19 pandemic. The study took place during the pandemic, which made it impossible to meet participants face to face. The findings, in which case, could be argued to be specifically pertinent to that period of time. However, that period was found to uncover many areas that need improvement in the broader context of doctoral supervision, including the personal dimension (Wisker et al., 2021). The use of online resources to contact participants and conduct

interviews via online meeting platforms was a useful alternative to ensure participants' safety as well as meeting research objectives. Although online interviews may lack the depth of personal interaction that face-to-face interviews can provide, online interviews were found to be the best option that addressed the limitation of place and time and physical safety. Moreover, taking steps to build rapport and trust was crucial to establish an atmosphere that promotes interaction between the researcher and the interviewee.

The scarcity of literature on Algerian international PhD students is another limitation of this study. As a result, I had to rely on studies that tackled international PhD students' experiences in general. While the broad literature on international PhD students provides a useful framework for understanding the experiences of Algerian international PhD students, the lack of specific literature on this group is still a limitation. This said, the majority of studies on international PhD students indicate similar challenges as have been outlined in this thesis, such as language barriers, loneliness, cultural differences, and difficulties with supervision (Evans and Stevenson, 2011; Mogaji et al., 2021; Duke and Denicolo, 2017). As such, this study should be understood to provide valuable insights into the experiences of Algerian international PhD students, which can be compared to other studies on international PhD students.

Another limitation of this study is related to discussing EI in the context of doctoral supervision with students and supervisors who might have no prior knowledge of EI. The fact that the concept of EI is relatively unknown among participants is understandable. To address this, I informed participants that the interview was not to test their knowledge about EI. The interviews focused mainly on discussing students' and supervisors' experiences, and the analysis involved mainly extracting and capturing the areas where EI-associated skills were discussed and thus assumed to have been displayed. Participants were also asked to answer qualitative questionnaires prior to the interviews to ensure they had an idea of what would be discussed during these interviews. Another related limitation of this study is that the data primarily focuses on participants' perceptions and self-reported experiences of EI in doctoral supervision. While participants provided valuable insights into how they perceive and apply EI in their supervision relationships, this study did not assess

actual behavioural manifestations of EI. Finally, the study was also limited to taking students' and supervisors' perspectives only. Involving other university members, with different roles (academic and administrative) could have enriched the whole picture. In particular, I might have sought insights into the main issues raised by students and supervisors and the ways in which those with different responsibilities seek to manage those issues based on their positions. This study nonetheless managed to base its data on the two main elements in doctoral supervision (students and supervisors) and has thus provided a base from which to further investigate pertinent issues. With this in mind, the following section will address the implications for future research, in ways that hopefully address some of the limitations identified in this research.

6.5 Recommendations for future research

Given the limitations identified in this study, further research is necessary to gain a comprehensive understanding of how EI operates in the context of doctoral supervision. This study's limitations are addressed in the following recommendations.

- One of the limitations that could be considered in future research is using a larger sample size. This could involve recruiting participants from multiple institutions across a wider geographic area. Additionally, future studies may consider using different methods of data collection to increase the number of participants, such as online surveys. Alternatively, future studies might conduct interviews with smaller number of participants, but with a more in-depth and detailed analysis of the noted experiences. This might be achieved through conducting a longitudinal study over a longer period of time, drawing on the same (small) number of participants, so as to gather more data and insights from these specific individuals.
- One approach to address this study's limitation would be to conduct future research that specifically focuses on student-supervisor dyads. By doing so, a deeper and more nuanced understanding of supervision practices could be gained representative of both perspectives. This could involve conducting separate interviews with each member of the dyad and then analysing the data to identify commonalities and differences in their experiences. There might also be some merit in conducting observation studies of supervision meetings between student-supervisor dyads, which could provide additional insights into the dynamics of the relationship and the actual strategies used to manage

challenges (and how these are achieved linguistically). Ultimately, such research could help to identify more effective ways to support both students and supervisors in the doctoral supervision process.

- Another limitation of this study is that it was conducted during the COVID-19 pandemic, which prevented face to face meetings with participants. While this limitation may have impacted the study's data collection process, it also allowed for the identification of areas in doctoral supervision that require improvement, particularly in relation to the personal dimension. This limitation highlights the need for future research to explore how the pandemic has affected the experiences of international PhD students and their supervisors, and how these experiences can inform best practices for online and remote doctoral supervision. Additionally, future research could explore the use of alternative communication technologies and their effectiveness in facilitating effective doctoral supervision practices in different settings. This would provide useful insights for universities and academic institutions to adapt to changing circumstances so as to ensure the continuity of high-quality doctoral supervision.
- Although this study offers valuable insights into how PhD students and their supervisors perceive and apply EI in doctoral supervision, the limitations of focusing on self-reported experiences suggests the need for further research. To address this limitation, future research could incorporate other methods of data collection, such as direct observation of supervisory meetings, or the analysis of audio or video recordings. This would provide a more objective and nuanced understanding of how EI is manifested in doctoral supervision. Additionally, future research could seek to involve a larger and more diverse sample of participants, including those from different cultural backgrounds and academic disciplines, to provide a broader perspective on the role of EI in doctoral supervision. Furthermore, research could also examine the effectiveness of incorporating EI training or coaching for both PhD students and their supervisors, and how this impacts the quality of the supervision relationship and the success of the doctoral student (see Section 6.6).
- To address the limitation of the scarcity of literature on Algerian international PhD students, future research can focus specifically on this underrepresented population. More research can be conducted to gain a better understanding of the unique experiences and challenges faced by Algerian international

students. Additionally, researchers can conduct comparative studies between Algerian international PhD students and other international PhD students to determine similarities and differences in their experiences. This can provide a more comprehensive understanding of the experiences of international PhD students and inform best practices in doctoral supervision for this diverse population. Furthermore, researchers can also collaborate with institutions in Algeria to gather data on the experiences of Algerian international PhD students and contribute to the development of policies and programmes that better support them. It may be also beneficial to involve other UK members of the university community who may have different perspectives on doctoral supervision. For example, including the perspectives of administrative staff, faculty members, or other relevant stakeholders could provide a more comprehensive understanding of the issues and challenges faced by PhD students and their supervisors. Future studies could also explore the potential power dynamics that may be present in the student-supervisor relationships and how they impact the doctoral supervision process. This could be achieved through the use of a mixed methods approach, such as surveys and interviews with multiple stakeholders to provide a more holistic understanding of the complexities involved in doctoral supervision.

- For similar studies, it may be beneficial to provide participants with more information on EI prior to the interview, such as through a brief training or educational session. Additionally, future studies could explore the effectiveness of different approaches to introducing and discussing EI with participants who may have no prior knowledge of the concept.

6.6 Implications of the research and recommendations

This research study has managed to uncover the personal and emotional dimension behind pursuing a PhD. It is especially significant in the sense that it depicted the experiences of Algerian international PhD students as well as their UK-based supervisors. The findings of this study suggest that supervisors can enhance their effectiveness by demonstrating EI through empathic behaviours, active listening, and emotional support and cultural awareness. Incorporating cultural sensitivity within EI training for supervisors and students is recommended, as cultural awareness was

found to allow for more open interpretation of behaviours and responses, which can prevent misunderstandings and conflicts (see Sections 5.2.3 and 5.2.4). The study highlights the significance of the personal dimension of doctoral supervision and the role of EI in managing cross-cultural supervisory issues through EI skills such as empathy, which can serve as an ‘antidote’ in cross-cultural interactions, especially given they are prone to misunderstandings (Goleman, 2018). To improve the supervisory experience for international students, academic institutions could provide training and support for supervisors to enhance their EI and cross-cultural communication skills. Algerian PhD students would benefit from having some training in EI and cultural sensitivity in Algeria prior to coming to the UK: I believe, based on my study, that this would help to improve their communication skills and coping mechanisms when studying in the UK. The Algerian personnel might prepare prospective students to deal with potential scenarios similar to those mentioned by participants (see for instance Sections 4.1.2.1 and 4.2.5). My results suggest that supervisors would also benefit from some training in EI and in cultural sensitivity, so that they are better prepared to supervise international students of diverse cultural backgrounds. Students and supervisors might be exposed to scenarios and trained to deal with them proactively. Below are some of the scenarios drawn from this research data. These scenarios can be examined by emphasising different aspects of EI. This can include increasing awareness of oneself/others, managing emotions of oneself/others, building rapport, and coping with cultural differences.

1. An Algerian PhD student is working with their UK-based supervisor who has a very different communication style than they are used to. The student finds their supervisor’s direct and blunt feedback to be demotivating and is struggling to stay motivated to work on their projects.
2. An Algerian PhD student is working with their UK-based supervisor who is very busy and does not have much time to provide feedback or support. The student is feeling isolated and unsupported, and is unsure how to navigate the PhD requirements.
3. An Algerian PhD student is working with their UK-based supervisor who is very hands-off and does not provide direction and guidance. The student is feeling lost and unsure of how to proceed with their research project.
4. A UK-based supervisor is working with an Algerian PhD student who has a

tendency to be very emotional and reactive when receiving feedback on their work. The supervisor is unsure how to provide constructive criticism without causing the student to become defensive or upset.

5. A UK-based supervisor is working with an Algerian PhD student who is very quiet and reserved, and does not speak up much during their meetings or discussions. The supervisor is unsure as to how to encourage the student to participate more actively without putting too much pressure on them.
6. A UK-based supervisor is working with an Algerian PhD student who has very different cultural norms and expectations around hierarchy and authority, which has impacted on the student's emotional experiences as an international student and is causing them to experience feelings of disconnectedness, isolation and withdrawal. The supervisor is unsure of how to navigate these differences and establish a productive working relationship with the student.
7. An Algerian student is over-reliant on their UK-based supervisor for intellectual and emotional support, which makes it harder for the supervisor to manage the supervisory relationship.

Based on my study, I would argue that training in EI can be valuable in addressing the challenges presented in these scenarios. For scenario 1, the Algerian PhD student can develop EI skills, such as empathy and active listening, to better understand their supervisor's communication style and respond appropriately. The student may also benefit from developing self-regulation skills to manage their emotions and stay motivated despite receiving direct feedback and also managing their supervisors' temperaments and mood changes (Johansson et al., 2014). Supervisors can benefit from developing cultural sensitivity skills to better understand and adapt to the Algerian students' cultural expectations of communication. In scenario 2, the student can develop EI skills to be able to communicate their needs and concerns to their busy supervisor more effectively. For instance, the student can learn how to express their concerns in a clear and non-confrontational manner. The supervisor can also benefit from developing EI, communication skills and cultural sensitivity to better understand and support their international students. The supervisor may need to be more proactive in providing support and feedback to the student, or to suggest other resources and support services available at the institution. In scenario 3, similar to scenario 1, developing EI skills can help the student to better manage their own

emotions and cope with the hands-off supervision style. For example, the student can benefit from EI training to develop self-awareness and self-management skills to stay motivated and focused on their project. The supervisor can also help the student by developing better communication skills: for example, by being able to provide direction and guidance to the student in ways that align with the student's own communication style. In scenarios 4, 5 and 6, EI training can be instrumental in helping UK-based supervisors work more effectively with their Algerian PhD students. In scenario 4, EI training can help the supervisor develop empathy and sensitivity towards the student's emotional reactions, which can help them provide feedback in a way that is constructive and supportive. In the 5th scenario, EI can help the supervisor understand the cultural differences that may be affecting the student's communication style and help them develop strategies to encourage the student's involvement in a way that is respectful and supportive. In the 6th scenario, EI training can help supervisors (help their students to) understand and navigate the cultural differences around hierarchy and authority and help them establish a mutually productive working relationship based on mutual understanding and respect. In scenario 7, EI training can foster self-awareness, emotional resilience, and self-reliance in students. It can help set boundaries, promotes independent problem-solving, and enables effective communication, allowing supervisors to manage relationships better and reduce over-reliance. The value placed on feedback varies among students, with some appreciating both of their supervisors' positive and negative feedback as constructive, while others lean towards positive feedback while highlighting the points that need improvement in a considerate manner. The significance of EI in doctoral supervision ultimately hinges on the individual needs, preferences, and expectations of each student, as evident from students' and supervisors' narratives and perspectives in this study. It is crucial to emphasise this aspect when training supervisors in EI, recognising the importance of tailoring feedback approaches to meet the diverse requirements of students.

Similar scenarios can address the various skills related to EI, given that the findings reveal that most participants link EI to the intrapersonal aspects of it (the self), while little has been mentioned with regards to interpersonal skills (the other). Thus, raising awareness of the various EI associated skills may be useful to enable students and supervisors to make use of all EI skills and hence be aware of the role EI can have in the improvement of the supervision process and the doctoral experience.

Algerian PhD students face many challenges when pursuing their studies in the UK, as the abovementioned examples show, including adapting to a new academic and cultural environment. To address these challenges, it is recommended that a preparatory course be established to help these students prepare for their studies in the UK. The preparatory course should include training in EI and cultural sensitivity that may help students adapt to the academic and cultural norms of the UK. The preparatory course should be a mandatory requirement for all prospective Algerian PhD students, in my view. It is important for students to have access to such a course, as this will help them to feel more confident and prepared for their studies in the UK. This course will also help to reduce the culture shock that some students experience when transitioning to a new academic and cultural environment (Saheb, 2022). Furthermore, it is recommended that a course be established for UK-based supervisors to cover topics such as cultural sensitivity, effective communication and EI. This course will help supervisors to better understand the challenges faced by international students and will help them to develop more effective and supportive relationships with their students. This course would also be beneficial for both UK-based supervisors and their international students, as it would help to foster a more inclusive and supportive academic environment. The impact of these recommendations could be significant. By providing a preparatory course for Algerian PhD students, they will be better prepared to handle the academic and cultural challenges they will face while studying in the UK. This may help them to succeed academically and socially, and improve their overall experience while studying in the UK. Additionally, the course for UK-based supervisors may help to foster more effective and supportive relationships between supervisors and their international students, and may ultimately improve the quality of PhD education and research in the UK. This study has emphasised the importance of clear communication between supervisors and students and further suggests that the type of EI training noted above might include making students aware of the difficult cultural practices, including the use of first names, a more direct conversational style, etc, prior to coming to the UK (see Section 4.2.4). This study further highlights the need to fully explore the nuances of the supervisory relationship, which remains individualised and private, as a means of improving the doctoral supervision experience for both international students and their UK-based supervisors. By promoting cultural sensitivity and improving EI, supervisors can better support international students and adapt to their communication

styles as a means of better meeting their needs. This study's outputs, including detailed thematic and corpus linguistic analysis, can inform future research in the field and contribute to the theoretical understanding of the role of EI in doctoral supervision.

In conclusion, this study has practical implications for improving the effectiveness of doctoral supervision, particularly in cross-cultural contexts. It highlights the significance of EI, cultural sensitivity, and effective communication in managing supervisory issues. Academic institutions could provide the training and support for supervisors to improve their cross-cultural communication skills and EI, which can enhance supervisory experiences for international students. Future research should continue to explore the nuances of the supervisory relationship and the impact of EI on the doctoral supervision experience.

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Appendices

Appendix A: Ethical approval



09/10/2019

Project Title: Assessing the relationship between Emotional Intelligence and effective PhD supervision practices

EthOS Reference Number: 10158

Ethical Opinion

Dear Khadidja Benouadah Senouci,

The above application was reviewed by the Arts and Humanities Research Ethics and Governance Committee and, on the 09/10/2019, was given a favourable ethical opinion. The approval is in place until 01/10/2021 .

Conditions of favourable ethical opinion

Application Documents

Document Type	File Name	Date	Version
Recruitment Media	Leaflet v1.3.0	24/06/2019	1.3.0
Project Protocol	khadidja benouadah senouci 30 04 2019.	24/06/2019	1.3.0
Information Sheet	Participant-Information-Sheet (students)	09/09/2019	1.3.1
Information Sheet	Participant Information Sheet (Supervisors) (1)	10/09/2019	1.3.1
Consent Form	Students' Consent Form	10/09/2019	1.3.1
Consent Form	Supervisors' Consent Form	10/09/2019	1.3.1

The Arts and Humanities Research Ethics and Governance Committee favourable ethical opinion is granted with the following conditions

Adherence to Manchester Metropolitan University's Policies and procedures

This ethical approval is conditional on adherence to Manchester Metropolitan University's Policies, Procedures, guidance and Standard Operating procedures. These can be found on the Manchester Metropolitan University Research Ethics and Governance webpages.

Amendments

If you wish to make a change to this approved application, you will be required to submit an amendment. Please visit the Manchester Metropolitan University Research Ethics and Governance webpages or contact your Faculty research officer for advice around how to do this.

We wish you every success with your project.

Art and Humanities Research Ethics and Governance Committee

Appendix B: Ethical approval for amendment



12/06/2020

Project Title: Assessing the relationship between Emotional Intelligence and effective PhD supervision practices

EthOS Reference Number: 10158

Ethical Opinion

Dear Khadidja Benouadah Senouci,

The above amendment was reviewed by the Arts and Humanities Research Ethics and Governance Committee and, on the 12/06/2020, was given a favourable ethical opinion. The approval is in place until 01/10/2021 .

Conditions of favourable ethical opinion

Application Documents

Document Type	File Name	Date	Version
Additional Documentation	Student-participant information sheet	11/06/2020	V1.3.3
Additional Documentation	Student's consent form	11/06/2020	V1.3.3
Additional Documentation	Supervisor-participant information sheet	11/06/2020	V1.3.3
Additional Documentation	Supervisor's consent form	11/06/2020	V1.3.3

The Arts and Humanities Research Ethics and Governance Committee favourable ethical opinion is granted with the following conditions

Adherence to Manchester Metropolitan University's Policies and procedures

This ethical approval is conditional on adherence to Manchester Metropolitan University's Policies, Procedures, guidance and Standard Operating procedures. These can be found on the Manchester Metropolitan University Research Ethics and Governance webpages.

Amendments

If you wish to make further changes to this approved application, you will be required to submit an amendment. Please visit the Manchester Metropolitan University Research Ethics and Governance webpages or contact your Faculty research officer for advice around how to do this.

We wish you every success with your project.

Art and Humanities Research Ethics and Governance Committee

Art and Humanities Research Ethics and Governance Committee

For help with this application, please first contact your Faculty Research Officer. Their details can be found [here](#)

Appendix C: Student's information sheet



Participant Information Sheet

Assessing the Role of Emotional Intelligence in Effective Doctoral Supervision in a UK Higher Education Context

1. Invitation to research

I would like to invite you to take part in my research. My name is Khadidja Benouadah Senouci. My research project seeks to investigate the perspectives of international PhD students on the role of Emotional Intelligence during their journey with their supervisors. The research will be done at Manchester Metropolitan University. I intend to study the notion of Emotional Intelligence from the viewpoints of international PhD students and the supervisors in charge of international students. The methods I am using are outlined below. You are kindly invited to participate in my study as it will be of great use to my research, which I hope will offer a useful contribution to the field of emotional intelligence in higher education.

2. Why have I been invited?

You have been chosen on the basis that you are an international student currently studying for a PhD in the UK. You are also at a certain stage in your doctoral project. This is significant for my project, as this study is interested in recruiting doctoral students at various stages of their PhD journey.

3. Do I have to take part?

It is up to you to decide. We will describe the study and go through the information sheet, which we will provide you with. We will then ask you to sign a consent form to show you have agreed to take part. Your participation is voluntary, and you are free to withdraw at any time.

4. What will I be asked to do?

You are invited to answer a questionnaire concerning your PhD journey, how you feel about your relationship with your supervisor, and in what ways you see that academic relationship is having an impact on your experience.

You will be invited to sign a consent form if you agree to take part in my study. Your participation will go through these steps: First, you will be invited to complete a questionnaire. Second, I will interview you, so that we can discuss in more depth/reflect upon your questionnaire. I will use an audio recorder to register our conversation during the interview, and the data recorded will be confidential. This means that no one can have access to the collected data except for the research team. The meeting will be in one of the University's buildings at a time convenient to you. If any circumstance prevents that, an online chat - using Skype (or similar) - will substitute a face-to-face meeting. The consent form will be read to you and your answers will be recorded during the interview.

5. Are there any risks if I participate?

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Version: v1.3.3 Date: 11/06/2020

Ethical approval number (Ethos): 10158 Date:



Researcher: Khadidja Benouadah Senouci

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If you have any concerns regarding the personal data collected from you, our Data Protection Officer can be contacted using the legal@mmu.ac.uk e-mail address, by calling 0161 247 3331 or in writing to: Data Protection Officer, Legal Services, All Saints Building, Manchester Metropolitan University, Manchester, M15 6BH. You also have a right to lodge a complaint in respect of the processing of your personal data with the Information Commissioner's Office as the supervisory authority. Please see: <https://ico.org.uk/global/contact-us/>. You can also contact the FREGC: artsandhumanitiesethics@mmu.ac.uk

THANK YOU FOR CONSIDERING PARTICIPATING IN THIS PROJECT

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Version: v1.3.3 **Date:** 11/06/2020

Ethical approval number (Ethos): 10158 **Date:**



Your participation in this study will not cause any risks to you.

6. Are there any advantages if I participate?

Your contribution will be of a great help for the study and for further investigations concerning the improvement of the PhD journey of international students. I would therefore gratefully appreciate your taking part in my research

8. What will happen with the data I provide?

When you agree to participate in this research, we will collect from you personally-identifiable information.

The Manchester Metropolitan University ('the University') is the Data Controller in respect of this research and any personal data that you provide as a research participant.

The University is registered with the Information Commissioner's Office (ICO) and manages personal data in accordance with the General Data Protection Regulation (GDPR) and the University's Data Protection Policy.

We collect personal data as part of this research (such as name, telephone numbers or age). As a public authority acting in the public interest we rely upon the 'public task' lawful basis. When we collect special category data (such as medical information or ethnicity) we rely upon the research and archiving purposes in the public interest lawful basis.

Your rights to access, change or move your information are limited, as we need to manage your information in specific ways in order for the research to be reliable and accurate. If you withdraw from the study, we will keep the information about you that we have already obtained.

We will not share your personal data collected in this form with any third parties.

If your data is shared this will be under the terms of a Research Collaboration Agreement which defines use and agrees confidentiality and information security provisions. It is the University's policy to only publish anonymised data unless you have given your explicit written consent to be identified in the research. **The University never sells personal data to third parties.**

We will only retain your personal data for as long as is necessary to achieve the research purpose. Data after collected, participants' names and identifiers will be anonymized in which we will provide pseudonyms to you in a random way to insure our participants' confidentiality.

For further information about use of your personal data and your data protection rights please see the [University's Data Protection Pages](#)

What will happen to the results of the research study?

Findings will be published as part of a doctoral thesis. Those findings will not identify you directly, because we will anonymise any participant identifiers (such as names) as part of the data preparation process. If you are interested in the results, you can contact me and I will provide you with the findings once the project ends.

Who has reviewed this research project?

The research project has gone through the University's ethos application process and been approved by the Arts & Humanities Faculty Research Ethics and Governance Committee (FREGC).

Who do I contact if I have concerns about this study or I wish to complain?

Page 2 / 3

Version: v1.3.3 **Date:** 11/06/2020

Ethical approval number (Ethos): 10158 **Date:**

Appendix D: Supervisor's information sheet



Participant Information Sheet

Assessing the Role of Emotional Intelligence in Effective Doctoral Supervision in a UK Higher Education Context

1. Invitation to research

I would like to invite you to take part in my research. My name is Khadidja Benouadah Senouci. My research project seeks to investigate the relationship between the Emotional Intelligence (EI) of the supervisors and its position/role when supervising doctoral students. The research will be undertaken at Manchester Metropolitan University. I intend to study the notion of Emotional Intelligence from the viewpoints of international PhD students and the Supervisors in charge of these students, using the methods outlined below. You are kindly invited to participate in my study. The study will not only further my research but also contribute to the field of EI in higher education (HE).

2. Why have I been invited?

Supervisors play an integral part in my research, which is interested in studying the (1) perspectives of supervisors towards International PhD supervision, (2) the notion of Emotional intelligence (EI) and (3) it's position/ role in their practices. You have been invited to state your point of view about (1) to (3).

3. Do I have to take part?

It is up to you to decide. We will describe the study and go through the information sheet, which we will provide you with. We will then ask you to sign a consent form to show you agreed to take part. Your participation is voluntary, and you are free to withdraw at any time.

4. What will I be asked to do?

You will be invited to complete a questionnaire and an interview. The questionnaire is intended to address your recollections of instances during your doctoral supervision journey. The purpose of the interview is that we can reflect, together, on your comments in the questionnaire. You will be asked to signal that you agree to take part in the study, by signing a consent form. I will use an audio recorder to register our conversation during the interview, and the data recorded will be confidential. This means that no one can have access to the data I will collect beyond the research team. The meeting will be in one of the University's buildings at a pre-agreed time convenient to you. If, for any reason, a face-to-face meeting is not practicable, the interview will take place over Skype (or similar). The consent form will be read to you and your answers will be recorded during the interview.

5. Are there any risks if I participate?

Your participation in this study will not cause any risks to yourself or others.

6. Are there any advantages if I participate?

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Version: v1.3.3 Date: 18/11/2020
Ethical approval number (Ethos): 10158 Date:



Your participation will be of great help to the study and, in particular, will help further our understanding of EI in a HE context.

8. What will happen with the data I provide?

When you agree to participate in this research, we will collect from you personally identifiable information.

The Manchester Metropolitan University ('the University') is the Data Controller in respect of this research and any personal data that you provide as a research participant.

The University is registered with the Information Commissioner's Office (ICO) and manages personal data in accordance with the General Data Protection Regulation (GDPR) and the University's Data Protection Policy.

We collect personal data as part of this research (such as name, telephone numbers or age). As a public authority acting in the public interest we rely upon the 'public task' lawful basis. When we collect special category data (such as medical information or ethnicity) we rely upon the research and archiving purposes in the public interest lawful basis.

Your rights to access, change or move your information are limited, as we need to manage your information in specific ways in order for the research to be reliable and accurate. If you withdraw from the study, we will keep the information about you that we have already obtained.

We will not share your personal data collected in this form with any third parties.

If your data is shared this will be under the terms of a Research Collaboration Agreement which defines use and agrees confidentiality and information security provisions. It is the University's policy to only publish anonymised data unless you have given your explicit written consent to be identified in the research. **The University never sells personal data to third parties.**

We will only retain your personal data for as long as is necessary to achieve the research purpose. Data after collected, participants names and identifiers will be anonymized in which we will provide pseudonyms to you in a random way to insure our participants' confidentiality.

For further information about use of your personal data and your data protection rights please see the [University's Data Protection Pages](#)

What will happen to the results of the research study?

If you are interested in the results you can contact the researcher and we will provide you with findings once the project ends. Findings will be published as part of a doctoral thesis. Those findings will not identify you directly, because we will anonymise any participant identifiers (such as names) as part of the data preparation process.

Who has reviewed this research project?

The research project has gone through the University's ethos application process and been approved by the Arts & Humanities Faculty Research Ethics and Governance Committee (FREGC).

Who do I contact if I have concerns about this study or I wish to complain?

Researcher: Khadidja Benouadah Senouci

Phone: 07463820504

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Version: v1.3.3 **Date:** 18/11/2020

Ethical approval number (Ethos): 10158 **Date:**



E-mail: k.benouadah-senouci@stu.mmu.ac.uk

Supervisor: Dawn Archer

Phone: +44 (0)161 247 3887

E-mail: d.archer@mmu.ac.uk

If you have any concerns regarding the personal data collected from you, our Data Protection Officer can be contacted using the legal@mmu.ac.uk e-mail address, by calling 0161 247 3331 or in writing to: Data Protection Officer, Legal Services, All Saints Building, Manchester Metropolitan University, Manchester, M15 6BH. You also have a right to lodge a complaint in respect of the processing of your personal data with the Information Commissioner's Office as the supervisory authority. Please see: <https://ico.org.uk/global/contact-us/>

THANK YOU FOR CONSIDERING PARTICIPATING IN THIS PROJECT

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Version: v1.3.3 **Date:** 18/11/2020

Ethical approval number (Ethos): 10158 **Date:**

Appendix E: Student's consent form

Date: October 2020

Name: Khadidja Benouadah Senouci

Course: PhD

Department: Languages, Information and Communication

Place of study: Manchester Metropolitan University

Contact details: E-mail: K.BENOUADAH-SENOUCI@stu.mmu.ac.uk

STUDENTS' CONSENT FORM

Title of Project: **Assessing the Role of Emotional Intelligence in Effective Doctoral Supervision in a UK Higher Education Context**

Name of Researcher: **Khadidja Benouadah Senouci**

Please initial all

boxes (✓)

1. I confirm that I have read and understood the information sheet dated **11/06/2020** (**Version: v1.3.3**) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason.
3. I understand that my voice will be recorded during the online interview and I give my verbal consent for that, and to have the recording transcribed and analysed following the interview.
4. I understand that data in the questionnaire and interviews will be used anonymously.
5. I understand that my personal records will be accessed by the researcher with providing anonymity in research
6. I agree to take part in the above study.

Name of Participant

Date

Signature

Name of the
Researcher

Date

Signature

To be signed and dated in presence of the participant

Once this has been signed, you will receive a copy of your signed and dated consent form and information sheet by post.

EthOS ID number: 10158
Participants consent form
Version: v1.3.3
Date:

Appendix F: Supervisor's consent form

Date: November 2020

Name: Khadidja Benouadah Senouci

Course: PhD

Department: Languages, Information and Communication

Place of study: Manchester Metropolitan University

Contact details: E-mail: K.BENOUADAH-SENOUCI@stu.mmu.ac.uk

SUPERVISOR'S CONSENT FORM

Title of Project: **Assessing the Role of Emotional Intelligence in Effective Doctoral Supervision in a UK Higher Education Context**

Name of Researcher: **Khadidja Benouadah Senouci**

Please initial all boxes

1. I confirm that I have read and understand the information sheet dated **11/06/2020** (**Version: v1.3.3**) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason.
3. I understand that my voice will be recorded during the online interview and I give my verbal consent for that, and to have the recording transcribed and analysed following the interview.
4. I understand that data in the questionnaire and interviews will be used anonymously.
5. I understand that my personal records will be accessed by the researcher with providing anonymity in research
6. I agree to take part in the above study.

Name of Participant _____

Date _____

Signature _____

Name of the
Researcher _____

Date _____

Signature _____

To be signed and dated in presence of the participant

EthOS ID number: 10158
Participants consent form
Version: v1.3.3
Date:

Appendix G: Student's qualitative questionnaires

Assessing the Role of Emotional Intelligence in Effective Doctoral Supervision in a UK Higher Education Context

Thank you for accepting to take part in this study. Please take a time to read the following definitions of Emotional Intelligence (EI) to have an idea about this concept. The next questions are related to EI components and whether the context of doctoral supervision features any of these components.

Goleman defines Emotional Intelligence (EI) as “**the capacity for recognising our own feelings and those of others, for motivating ourselves, and for managing emotions in ourselves and in our relationships**” (Goleman, 1998: 317). Lansley (2020) suggests that EI has four main components, and that each of these components has specific skills associated with them as follows:

- **self-awareness:** recognising one's own emotions, identifying and anticipating triggers for one's own emotions, appraising appropriateness of one's own emotional reactions given the context;
- **social awareness:** reading another or others' emotional signals from multiple channels, hypothesising about signals from others, appraising options about actions relative to goals;
- **self-regulation:** interrupting initial thoughts and reactions in respect to emotion(s) where necessary, using/ expressing emotion appropriately, regulating emotions to support one's own response choice;
- **social interaction:** engaging others in order to understand others / influence others towards one's goals, shared mutual goals, etc.

General information

1. What is your course?
2. Is your course a part-time or a full-time degree?
3. What is your place of origin?
4. How long have you been in the UK?

Student's Doctoral experience

Based on the definition and your understanding of EI, and within the context of your doctoral experience in the UK, you are kindly invited to reflect on your experience as a supervisee and try to record any instances related to the following situations. (Please take your time in answering, and describe as much as you want).

Can you give me an example of a time when...

1. even though it was difficult, you were able to control and filter your emotions, such as anxiety or other negative emotions, in a constructive way?
 2. you felt you could not handle a situation, but your supervisor did not seem to observe your struggles or concerns, or they observed them but did not seem to give importance to them?
 3. your supervisor could help you handle a tough situation due to their ability to observe your struggles or concerns?
 4. you felt confident and proud to work on your project with your supervisor?
3. How would you describe your ability in accurately perceiving, understanding, managing your own emotions and those of others before the start of your course here in the UK and after that? Has anything changed since then?

5. How do you perceive your relationship with your supervisor has developed as your PhD journey has progressed?
6. Can you reflect on your feelings at different points of your PhD journey? How did you feel before you started, while in the middle and now?
7. Overall, how do you see your own emotional intelligence has impacted upon the process of the doctoral experience?

References

- Goleman, D. (1998) Working with emotional intelligence. New York: Bantam Books.
- Lansley, C. (2022) *What is emotional intelligence?*, EIA Group. Available at: <https://www.eiagroup.com/study/emotional-intelligence/what-is-emotional-intelligence/> (Accessed: 26 May 2020).

Appendix H: Supervisor's qualitative questionnaires

Assessing the Role of Emotional Intelligence in Effective Doctoral Supervision in a UK Higher Education Context

Thank you for accepting to take part in this study. Please take a time to read the following definitions of Emotional Intelligence (EI) to have an idea about this concept. The next questions are related to EI components and whether the context of doctoral supervision features any of these components.

Goleman defines Emotional Intelligence (EI) as "**the capacity for recognising our own feelings and those of others, for motivating ourselves, and for managing emotions in ourselves and in our relationships**" (Goleman, 1998: 317). Lansley (2017) suggests that EI has four main components, and that each of these components has specific skills associated with them as follows:

- **self-awareness:** recognising one's own emotions, identifying and anticipating triggers for one's own emotions, appraising appropriateness of one's own emotional reactions given the context
- **social awareness:** reading another or others' emotional signals from multiple channels, hypothesising about signals from others, appraising options about actions relative to goals
- **self-regulation:** interrupting initial thoughts and reactions in respect to emotion(s) where necessary, using/ expressing emotion appropriately, regulating emotions to support one's own response choice.
- **social interaction:** engaging others in order to understand others / influence others towards one's goals, shared mutual goals, etc.

Part I: General information

1. What is your place of origin?
2. How long you have been in the UK?
3. How long have you been supervising PhD students?

Part II: Doctoral supervision experience

Based on those definitions and your understanding of EI, and within the context of doctoral supervision, you are kindly invited to reflect on your experience as a supervisor and try to record any instances related to the following situations.

Can you give me an example of a time...?

1. where even though it was difficult, you were able to control and filter your emotions, such as anger or other negative emotions, in a constructive way?
-
2. when you could not handle a situation, because you might have been unable to observe your supervisee's feelings or concerns, or you observed them but did not seem to give importance to them?
-
3. where you think you made a positive influence on your anxious doctoral student who had struggles related to their research project?
-
4. where you were able to handle a conflict with your supervisee in an effective way?
-
5. Can you please describe your ability in accurately perceiving, understanding, managing your own emotions and those of others before the start of your job as a supervisor and after that (Now)? Has anything changed since then?
-
6. Overall, how do you see your own emotional intelligence can have an impact on the process of doctoral supervision?
-

Appendix I: Student's interview structure

I'd like to thank you once again for accepting to participate in the interview aspect of my study. As I have mentioned to you before, my study seeks to understand how students perceive their doctoral experience here in the UK being international, and what are their conceptions about EI in such context. The aim of this research is to document the possible interaction between students and their supervisors. Our interview today will last approximately one hour during which I will be asking you about your experience of moving to the UK and changes you have experienced in the setting either socially or academically. Now that you completed a consent form indicating that I have your permission to audio record our conversation, are you still ok with me recording our conversation today?

Before we begin the interview, do you have any questions? If any questions arise at any point in this study, you can feel free to ask them at any time. I would be more than happy to answer your questions.

To begin this interview, I'd like to ask you some questions about your experience here in the UK as an international student,

1. So, you have mentioned you have spent 2 years and a half. Is that right? How would you describe your experience?

Thank you for your responses. Now I'd like to ask you questions regarding your relationship with your supervisor/s

2. Can you describe your first meeting with them?
3. How do you think your academic relationship with your supervisor can impact on your project? – can you give me an example of your own experience?
4. What role/s do you think your supervisor/s play in your doctoral journey?
5. To what extent does the feedback you receive from your supervisor influences **you** and **your work** on your project?
6. Do you usually discuss with your supervisor/s your concerns about your research (confusion, uncertainty, stress...lack of resources)? Why/ why not? In what ways can this help you? - How helpful you see is sharing with your supervisor/s your concerns and struggles?
7. What are the positives in your supervisor that helped you overcome these and other concerns?
8. Would you describe that the academic relationship with your supervisor has progressed positively, negatively, or other? Can you explain that?
9. What other factors/people helped you overcome difficulties in your project?

Thank you for sharing information about your relationship with your supervisor. Now I'd like to ask you a few questions about your mental health during your journey with PhD

10. Alongside the doctorate as an intellectual process primarily, what can you say about your mental health during this journey?

Prompts:

- To what extent do you see the importance of the emotional process during the PhD?
- In what ways can emotions influence your practices, thoughts or decisions?
- Can you give me an example when your emotions had a positive/negative impact on your practices?

11. How do you see motivation can play in your success and project management?

12. Can I ask you to think of a time when you experienced anxiety and stress due to research difficulties? (just recalling the event you have mentioned in the questionnaire)

Prompts:

- How did this impact on your psychological state? And on your productivity on your work?

- You have mentioned that you felt ignored by your supervisor during a critical situation where he should have done his duty before leaving?
- How did you try to manage that feeling^a especially that you were in an urgent need of your supervisor's support?
- What did you expect from him to act?
- Did the actions taken by him after this incident meet your needs?

Thank you. I'd like to now ask you a few questions specifically about Emotional Intelligence,

- 13.** To what extent are you familiar with this term **Emotional Intelligence**?
- 14.** Based on that and the information in the questionnaire provided, can you give me your own understanding/ definition of this term?
- 15.** How do you perceive EI skills in your doctoral experience? -To what extent do you see EI skills can help in any way to improve your experience? (Skills such as empathy, social management, motivation...)
- 16.** Do you think that EI skills (such as motivation, empathy, relationship management...) intersect with success?
 - If yes, how/can you provide examples?
- 17.** Do you see that emotionally competent supervisors can better your doctoral experience or can contribute to your success in any means? (Based on the two examples you have mentioned about your supervisor ignoring your concerns and how it impacted on you, and the other instance where your supervisor could provide you with support despite the fact that he had family issues)
- 18.** Based on the 1st example in the questionnaire about how stress impacted your physical health, do you see that EI skills can improve your doctoral experience or can impact on your productivity?

My final set of questions are focused on getting to know more about your experience with your supervisor based on the examples that you have mentioned in the questionnaire.

- 19.** Have you been affected by the changes that happened during that time especially concerning the lockdown, university shut down and tele-supervision? Were you comfortable with those changes?
- 20.** How had your academic relationship with your supervisor been impacted during this time?

Prompts:

- What changes on your academic relationship with your supervisor happened during this time (means of communication, frequency of contact, discussing the current situation...)?
 - How did these changes influence on your progress?
- 21.** In the questionnaire, you have mentioned something about the outbreak of Covid-19, can you tell me how it impacted on **you**.
 - Who did you ask for support?
 - 22.** How did Covid-19 impact on your **research progress**, if any?
 - Did you discuss some of the concerns/struggles you faced with your supervisor? especially those impacting on your progress on your project.
 - 23.** What helped you remain calm and focused? Internal or external ...
 - 24.** What strategies did you follow to overcome its consequences?
 - 25.** Finally, can you tell me what your supervision means to you? How would you describe the role supervision has taken (for you) in your PhD research project?

Before we conclude this interview, is there something you see is worth discussing concerning your doctoral experience that we have not yet had a chance to discuss?

Appendix J: Supervisor's interview structure

I'd like to thank you once again for accepting to participate in the interview aspect of my study. As I have mentioned to you before, my study seeks to understand how supervisors perceive EI in the context of their supervision/ academic relationship with their supervisees. Our interview today will last approximately one hour during which I will be asking you about your journey supervising international PhD students. As you completed a consent form indicating that I have your permission to audio record our conversation. Are you still ok with me recording our conversation today?

Thank you! Please let me know if at any point you want me to turn off the recorder or keep something you said off the record.

To begin this interview, I'd like to ask you some questions about your experience as a supervisor.

1. So, you have mentioned you have almost 4 years of supervision experience and you are supervising 6 students. Is that right? How many Algerian international students do you supervise?
2. How would you describe your experience so far as a supervisor ? Did it add anything to your career?

Thank you for your responses. Now, I would like to ask you questions regarding your relationship with your doctoral students and Algerian international students in particular.

3. How do you foster a sense of trust and rapport with your supervisees? How does this contribute to their overall experience and progress in their doctoral journey?
4. Do your students often discuss with you their struggles or concerns in relation to their PhD? (stress, anxiety, lack of resources...). Can provide an example?
5. Do you often share with your supervisees some of your past experiences when you were a PhD student? Can you give an example when you did so?
6. In what way do you see this can help them?
7. If we talk specifically about Algerian international students, what sort of challenges do you face usually with them compared to the UK based?
8. In your experience, what types of feelings and concerns do supervisees commonly face during their journey? How do you identify and address these concerns?
9. You mentioned in the questionnaire: *it is sometimes the case where a supervisee's feelings and concerns mean that specific situations need to be adjusted in order to accommodate these concerns. At this stage of a student's journey, my role as a supervisor becomes more explicitly a pastoral support role than an academic support role for a time.* Can you describe a time when you successfully helped your student overcome a personal or emotional obstacle that was affecting their progress?
10. you mentioned in the questionnaire: *there have been situations wherein I have discussed academic progress with my supervisee and the supervisee's feelings/concerns were such that the situation needed to be amended to focus on their wellbeing, rather than academic concerns.* How do you see the ability to observe your supervisees' feelings or concerns about their research can give you insights about effective supervision?
11. Could you share an instance where you utilised your interpersonal skills to navigate a challenging situation with your student? What skills did you employ, and how did it impact the supervisory relationship?

Thank you for your answers. Now I would like to ask you about Emotional Intelligence.

12. To what extent are you familiar with Emotional Intelligence?
13. Can you provide your own understanding/ definition?
14. In the field of supervision, do you often **use** Emotional Intelligence skills including understanding and managing emotions motivation inspiration? can you give me example where you felt it was useful?
15. In the context of the multicultural UK higher education setting, do you believe Emotional Intelligence skills can enhance doctoral supervision? If so, how?

Thank you for your answers. Regarding EI in doctoral supervision, I'd like to ask you about your insights and experiences. Based on your earlier discussion on reframing experiences and its positive impact on students' feelings of stress and anxiety, could you share examples and thoughts on the following questions?

16. What sorts of changes have you encountered as a supervisor during the pandemic?
17. You have mentioned earlier the notion of reframing experiences in your discussion with your students.
In your questionnaire, you stated: *Following these conversations throughout the last 12 months, my students tend to explain to me that they feel less nervous. Perhaps this is because they are reframing negative outcomes and circumstances into positive narratives of adaptability and resilience.*
Can you provide an example of a situation where you helped a student reframe a negative outcome or circumstance into a positive narrative of adaptability and resilience?
18. Could you share any insights into the specific changes in mindset or perspective that students undergo when they reframe their experiences in a more positive light?
How do you gauge the effectiveness of the reframing process in reducing students' feelings of nervousness? Are there any specific indicators or feedback you look for?
19. overall, what can you say about the aspect of Emotional Intelligence in supervision? Is it important for you as a supervisor unnecessary quality...?

Thank you so much for sharing your valuable insights and experiences during this interview. If there are any additional thoughts or ideas you would like to share, please feel free to do so.

Thank you once again for your participation.