Observing Emotional Intelligence

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Observing Emotional Intelligence:

An exploratory investigation into its (non)verbal behaviours

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Aninka Spekle

Abstract

In recent years, as AI takes over more cognitive tasks, emotional and relational skills have become increasingly important in organisations. Consequently, Emotional Intelligence (EI) is likely to play a crucial role because of its positive impact on job performance. Despite its popularity, EI has faced debate and criticisms regarding its conceptualisations and operationalisations. This exploratory study analyses quantitative, qualitative, and grey literature to identify observable behaviours to advance the measurement of EI through video observation. Through content analysis and thematic analysis, we identified a set of suggested codes comprising verbal and nonverbal behaviours categorised into eight distinct categories. Further findings indicated that a behavioural operationalisation of EI may align better with a comprehensive conceptual framework that distinguishes between self-oriented and other-oriented dimensions of EI. Our results also showed that the self-oriented dimension is primarily cognitive in nature, whereas the other-oriented dimension centres around interpersonal communication. Furthermore, we noted a lack of detailed discussion on nonverbal behaviours, indicating a need for further exploration of their relationship to EI. These suggested codes and behaviours offer valuable guidance for future research endeavours and potentially lay the groundwork for an alternative, more objective assessment of EI. These observable behaviours also provide practical examples that can be incorporated into professional development programs, enhancing managers' and team members' understanding and application of emotionally intelligent behaviour.

Keywords

Emotional Intelligence (EI), Video Observations, Emotional Communication, Observational Operationalisation

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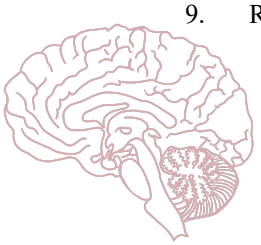


1. INTRODUCTION

Over the past few years, the expansion of cognitive capabilities of Artificial Intelligence (AI) has driven a switch from what research has called a "thinking economy" to a "feeling economy" (Huang et al., 2019). Intrinsic in this switch is a renewed attention to more affective and relational components, such as communication, coordination, and maintaining interpersonal relationships (Huang et al., 2019). A resource that can help in such a "feeling economy" is Emotional Intelligence (EI).

Regardless of its different conceptualisations and definitions as an ability-, trait- or mixed-method-based construct (O'Conner et al, 2019), over the past two decades EI has become a well-known concept both in the business world as well as in the world of academics (Joseph et al., 2015; Bru-Luna et al., 2021). Not only has it become a tool for hiring, training, leadership development, and team building, but it has also been said to be a contributing factor in work performance and professional success (Joseph et al., 2015; Louwen et al., 2023). Additionally, numerous studies have shown that EI can aid job performance, develop interpersonal relationships, and overall help with jobs involving emotional demands (A'yuninnisa et al., 2024a; Bru-Luna et al., 2021; Farh et al., 2012). Additionally, research found that employees with higher EI used more collaborative and integrative conflict resolution methods as well as formed emotionally intelligent team climates resulting in lower levels of conflict intensity (A'yuninnisa et al., 2024b; Farh et al., 2012). That emotional competencies could positively impact workplace outcomes has led to an increased interest amongst management as well as research (Farh et al., 2012). However, even though EI has become a sought-after organisational and psychological construct, research has yet to find answers to "many theoretical, measurement, and validity questions surrounding the construct" (Joseph & Newman, 2010, p. 54).

In particular, issues of how to properly assess EI have represented a real challenge for researchers. O'Connor et al. (2019), for instance, mentioned the challenge of developing emotion-focused questions that could be objectively scored and that could also hold good psychometric properties. Similarly, Joseph and Newman (2010) noticed unclarity of what constructs are being measured with some ability and mixed-methods measures, pointing to the fact that some items on self-report (ability) measures of EI

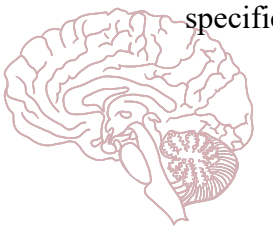
might in reality measure motivation (Joseph & Newman, 2010). Furthermore, since "individuals are often unaware of their actual capacities or may have motivations for artificially inflating or deflating their scores" (Dasborough et al., 2022, p. 4), self-report measurements are likely to be inherently biased. In line with this, Mayer et al. (2016) added that individuals tend to estimate their abilities on a mix of general self-confidence, self-esteem, and wishful thinking, making individuals' self-estimated EI unreliable or even false.

Considering these limitations to self-reported EI measures, recently a need has arisen to assess EI in a different and more objective way since this could enhance the quality of measurement across the broad sweep of organisational psychology and behavioural research and supplement survey-based measures (Kozlowski, 2015, p. 285). Additionally, it would allow the study of the connection between EI and verbal and nonverbal behaviour, which is pertinent to emotional communication (Jacob et al., 2013). Several researchers have indeed called for alternatives of measurements, e.g., video observations and coding schemes, that can provide deeper insights into team processes whilst minimising method effects and intrusiveness (Kozlowski, 2015; Mathieu, Luciano, et al., 2019). For instance, Zhao et al. (2019) proposed video observations to further research on conflict, a concept that in research is intertwined with EI (Davaei & Gunkel, 2023; Jordan & Troth, 2002). Similarly, O'Donovan et al. (2020) developed an observation codebook for psychological safety which is mentioned as a mediating mechanism alongside EI in team effectiveness research (Mathieu, Gallagher, et al., 2019). Moreover, O'Donovan et al. raise similar problems in the measurement of psychological safety, such as self-report bias (2020). Therefore, given recent research calls and the similarity and connection between these concepts, we can argue that we need EI measures that are based on the observation of non- and verbal behaviour, hence the research question:

RQ: How can Emotional Intelligence be measured through observable behaviours?

Sub-RQ: What (non) verbal behaviours can be associated with EI?

With these research objectives, this study aims to contribute to the EI literature by advancing our understanding of alternative ways to assess such a construct. More specifically, the study aims to deepen the current foundation of EI conceptualisations



by linking the (non) verbal behaviours. By grounding the conceptualisations into concrete behaviours, a new measurement method of EI through observation can provide a more objective and reliable means of assessing EI. This study contributes by investigating the current operationalisations to find the underlying behaviours.

Furthermore, this study has practical implications for managers as well as team members. This study may help create awareness amongst team members and managers of how their verbal and nonverbal behaviours impact emotional communication and overall team performance. Through recognising and understanding these behaviours, managers may be able to foster a more emotionally intelligent work environment, leading to improved collaboration, productivity, and employee satisfaction. Additionally, this awareness could also open up the potential for EI training or including EI in organisations' professional development programs.

After this section, this study unfolds in the following manner: Initially, the various conceptualisations of EI as well as an overall conceptualisation of EI are considered. Subsequently, the research methodology is detailed, followed by the presentation of results. Next, the theoretical and practical implications of the findings are discussed. Finally, the study concludes with a discussion of limitations and opportunities for future research.

2. THEORETICAL BACKGROUND

2.1 Conceptualisations of EI

EI research stems from the concept of social intelligence by Thorndike in 1920 (Davaei & Gunkel, 2023; Joseph & Newman, 2010; Mayer & Salovey, 1993; Schutte et al., 1998). Social intelligence was defined as a single concept with the ability to understand and manage people, as well as the ability to understand and manage oneself (Davaei & Gunkel, 2023; Mayer & Salovey, 1993). However, in 1960, Cronbach concluded that social intelligence as a concept remained undefined and unmeasured (Mayer & Salovey, 1993; Joseph & Newman, 2010). Afterwards, in 1983, Gardner redefined social intelligence in a dual concept named personal intelligence, consisting of intrapersonal intelligence and interpersonal intelligence. Interpersonal intelligence is the ability to understand and work with the intentions, motivations, and desires of other people (Davaei & Gunkel, 2023). Intrapersonal intelligence is the ability to “understand

one's own emotions, ideas, motivations, and self-reflection and to use such information effectively in regulating one's own life" (Davaei & Gunkel, 2023, p. 261).

The concept of EI is grounded in social intelligence and akin to personal intelligence, and it emerged in the early 1990s as an ability-based construct by Salovey and Mayer (Davaei & Gunkel, 2023; O'Connor et al, 2019). Afterwards, Goleman (1995) made the concept of EI popular with the publication of his book (Schutte et al., 1998).
Brewer and Cadman (2000) suggested that an individual's capacity to develop skills and competencies related to EI can be delineated across five distinct domains (Louwen et al., 2023). These domains are (Brewer & Cadman, 2000):

- ***Self-awareness***: the ability to assess yourself with accuracy, includes emotional awareness and high self-esteem.
- ***Self-regulation****:* the ability to control emotion and impulse, includes the flexibility of handling change and the ability to innovate.
- ***Motivation****:* the need to achieve and initiate, includes optimism.
- ***Empathy****:* The ability to understand and develop others and to tune into the individuals' or group's emotional state, includes willingness to meet other people's needs.
- ***Social Skills****:* such as persuasiveness, conflict management, and leadership skills.

Following ability EI, two more distinct forms were defined: trait-based EI and mixed-methods EI (O'Conner et al, 2019). Though these three distinct forms are relatively established, the field of EI is generally not clear on terminology, definitions, and methods of measurement (O'Conner et al, 2019; Ashkanasy & Daus, 2005; Zeidner et al., 2008). For instance, this distinction between the three streams of EI is not the only method of classifying EI, as Petrides and Furnham (2000) proposed, a different distinction between ability and trait EI (O'Conner et al., 2019). They distinguished types of EI "based purely on whether the measure was a test of maximal performance (ability EI) or a self-report questionnaire (trait EI)" (O'Connor et al., 2019, p. 2).

2.1.1 Ability EI

The Mayer and Salovey's ability model of EI is the most used model of EI, and it has been cited in over 1500 academic studies (Bru-Luna et al., 2021; Far et al., 2012; O'Connor et al., 2019). Mayer and Salovey's ability four branch model of EI consists

of four subdimensions (see Figure): (1) perceiving emotions (emotion perception), (2) facilitating thought using emotion (emotion facilitation), (3) understanding emotions (emotion understanding), and (4) managing emotions (emotion management) (Mayer et al, 2016; Joseph & Newman, 2010). Additionally, Mayer et al developed a measure based on this four-branch model called the Mayer, Salovey, Caruso Emotional Intelligence Test (MSCEIT).

Some researchers favour a three-branch model, leaving out the subdimension of emotion facilitation due to conceptual redundancy with the other dimensions and a lack of empirical support for the subdimension (Mayer et al, 2016; Joseph & Newman, 2010). "Gignac (2005); Palmer, Gignac, Manocha, and Stough (2005); and Rossen, Kranzler, and Algina (2008) have demonstrated the poor fit of EI factor analytic models that included the dimension of emotion facilitation and the superior fit for EI models from which this dimension was removed" (Joseph & Newman, 2010, p. 55).

2.1.2 Trait EI

The second model of EI was developed first by Petrides and Furnham (2001), defining it as a persistent behavioural pattern over time (Bru-Luna et al., 2021). "A constellation of emotion-related self-perceptions and dispositions, assessed through self-report" (Petrides and Furnham, 2003, p. 40). Trait EI is used as an umbrella term that includes personality traits, affect, and self-perceived abilities (Furnham et al., 2021). They determined four global factors, namely Emotionality, Self-control, Sociability, and Wellbeing, and 15 different facet levels (see Table 1) (Petrides, 2009). Table 1 is a collection of core elements derived from early EI models and cognate constructs, choosing to exclude peripheral elements that existed in only one specific conceptualisation (Petrides, 2009).

Table 1

The Sampling Domain of Trait EI, afdapted from Petrides (2009, p. 89)

Facets	*High Scorers view themselves as…*
Adaptability	...flexible and willing to adapt to new conditions
Assertiveness	...forthright, frank, and willing to stand up for their rights
Emotion expression	...capable of communicating their feelings to others
Emotion management (others)	...capable of influencing other people's feelings
Emotion perception (self and others)	...clear about their own and other people's feelings

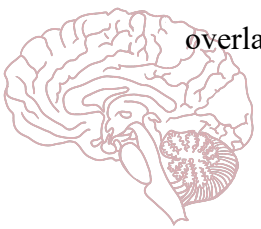
Emotion regulation	...capable of controlling their emotions
Impulsiveness (low)	...reflective and less likely to give in to their urges
Relationships	...capable of maintaining fulfilling personal relationships
Self-esteem	...successful and self-confident
Self-motivation	...driven and unlikely to give up in the face of adversity
Social awareness	...accomplished networkers with superior social skills
Stress management	...capable of withstanding pressure and regulating stress
Trait empathy	...capable of taking someone else's perspective
Trait happiness	...cheerful and satisfied with their lives
Trait optimism	...confident and likely to ''look on the bright side'' of life

2.1.3 Mixed EI

The last model is mixed EI, which refers to measures that use a combination of traits, abilities, and competencies (O'Connor et al.,2012; Bru-Luna et al., 2021). According to Bru-Luna et al. (2021), mixed EI can be split into two main branches by two different researchers, namely Bar-On (1997) and Goleman (1995). Bar-on defined EI as "a set of non-cognitive abilities and competencies that influence the ability to be successful in coping with environmental demands and pressures" (Bru-Luna et al., 2021, p. 2). Bar-On's model consists of five key components namely intrapersonal skills, interpersonal skills, adaptation skills, stress management skills and general mood. The second branch proposed by Goleman, who is often credited with the wide spreading of EI in the general public as well as the scientific community (Bru-Luna et al., 2021; Mattingly & Kraiger, 2019; Orhan, 2024). Goleman conceptualises EI similarly, however, focuses on the following five dimensions: recognition of one's own emotions, management of emotions, self-motivation, recognition of emotions in others, and management of relationships (Bru-Luna et al., 2021). The focus on emotional and social competencies is a common aspect in mixed EI measures, for instance, Goleman focusses on how these competencies can enhance leadership and managerial success (Bru-Luna et al., 2021; O'Connor et al., 2019). Though all models of EI have received criticism, mixed EI has received many criticisms due to redundancy with personality traits and as they define EI by any positive trait that is not covered by cognitive ability (Joseph & Newman, 2010).

2.1.3.1 Overall Conceptualisation of EI

Regardless of the various conceptualisations of EI, there are "numerous conceptual overlaps" (O'Connor et al., 2019, p. 3) sometimes even substantial (Joseph & Newman,



2010; Petrides & Furnham, 2003). O'Connor et al. (2019) propose that this is due to the early influential work of Mayer and Salovey (1993). Albeit with different labels, this can be seen dimensions of Mayer and Salovey's model (Karani & Desai, 2024). For instance, Bru-Luna et al. (2021) mentioned emotional perception, emotional regulation, and adaptive use of emotions and Petrides and Furnham (2003) mention emotional self-awareness as overlapping concepts. Additionally, most instruments measuring EI are hierarchical, meaning they give an EI score per dimension and then a 'total EI score' (Bru-Luna et al., 2021).

Furthermore, what seems to be a corresponding factor is the division between self-oriented EI and other-oriented EI. A general and common definition of EI is how individuals perceive, monitor, utilise and manage their own emotions and those of others (Grijalbo et al., 2021; Orhan, 2024). Petrides and Furnham (2003) use the terms intra-personal, self-oriented, and interpersonal, other-oriented, to divide the construct of EI like Gardner (1983) (Davaei & Gunkel, 2023). Wang et al. (2022) raise the question of whether self-oriented or other-oriented EI is equally important for prediction criteria. They propose that whilst self-oriented EI plays an important role in someone's mental and physical health, other-oriented EI might be more important for "facilitating smooth social interactions" (Wang et al., 2022). They are not the only researchers that call for this way of distinguishing EI, for instance, Fiori and Vesely-Maillefer (2018) said that more precise operationalisations of self-oriented and other-oriented EI "would allow collecting "cleaner" validity data for the ability EI construct" (p. 37).

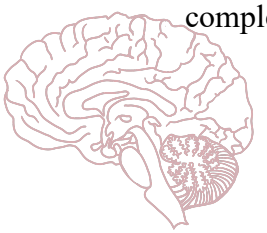
Moreover, when it comes to reconceptualising EI, Joseph and Newman (2010) suggest a cascading model, excluding the dimension of emotion facilitation, where the sequence progresses from emotion perception to emotion understanding and then to emotion regulation leading to job performance (Joseph & Newman, 2010). The model points out that individuals who are more aware of (non)verbal cues (emotion perception) have a larger and more accurate base of emotional information that allows a more accurate emotion appraisal (emotion understanding) and a better response formation (emotion management). This progressive structure of EI could aid when creating an observational EI measure. For instance, the core of the dimension of emotion perception involves more internal cognitive processes, such as interpreting emotional information, that may

be harder to observe directly which is vital in video-observation. Though a good fit for this model was found through meta-analysis, there is also evidence that suggests that EI abilities are acquired in parallel rather than sequential (Fiori & Vesely-Maillefer, 2018). Adding to this, distinguishing between self-oriented EI and other-oriented EI, could aid in pinpointing visible EI behaviours, with the idea that self-oriented EI is similarly more inwardly focused.

2.2 Observation Methodology

Recent studies have highlighted the limitations of self-report EI, calling for more objective assessment measures (Dasborough et al., 2022), particularly when researching the connection between EI and verbal and nonverbal behaviour as these are crucial to emotional communication (Jacob et al., 2013). According to Mathieu and Luciano et al. (2019), recent developments enabled researchers to supplement team process studies by utilising several data streams, including verbal communication, nonverbal behaviour, and physiological responses (Mathieu, Luciano, et al., 2019). Video and audio recordings are possibly the most direct and flexible way to collect such dynamic data, as they allow a stream of continuous data to be captured (Kozlowski, 2015).

However straightforward the collection might be, the challenge is turning the raw video and audio data into useful assessments by devising a construct-valid coding scheme (Kozlowski, 2015). Depending on what is investigated, these coding schemes can range from "simple to complex, broad to highly granular, and static to dynamic" (Kozlowski, 2015, p. 286). Establishing a coding scheme requires defining and determining the dimensions of interest, for instance, specific behaviours (actions and verbalisations) and/or behavioural cues (facial expressions and gestures) (Kozlowski, 2015). With a set scheme, the video observation can be coded by at least two independent observers for inter-rater reliability (Kozlowski, 2015; O'Donovan et al., 2020). When it comes to EI, an observational measure could offer better psychometric properties, as well as minimise the method effects and intrusiveness of the measurement (Mathieu, Luciano, et al., 2019). However, due to the questions and disagreement around the concept of EI (Joseph & Newman, 2010), determining the dimensions and behaviours for such a coding scheme is an even bigger challenge. Nevertheless, building codebooks for complex constructs within team effectiveness is feasible, as demonstrated by other



similar constructs, such as psychological safety (O'Donovan et al., 2020). To create the psychological safety codebook, they paid close attention to verbal and nonverbal behaviour that could be included in the observational measure (O'Donovan et al., 2020). When it comes to EI, this relates to how emotions are communicated.

2.3 Emotional Communication

Information can be exchanged through verbal means such as words or language, or nonverbal means such as body language, tone of voice, and facial expressions (Jacob et al., 2013). Some argue that verbal communication is mainly to convey information and nonverbal communication is to convey emotions and attitudes (Negrescu & Nicolescu, 2018). Nonverbal communication can emphasise, repeat, supplement, replace or contradict verbal communication, which becomes crucial in trying to decipher an individual's genuine emotional state (Jacob et al., 2013; Negrescu & Nicolescu, 2018). Jacob et al. found that both verbal and nonverbal cues impact emotion perception, one of the four branches of Salovey and Mayer (2013). Before delving into each cue, it is important to acknowledge that culture can influence EI, particularly in terms of attitudes and behaviour, including verbal and nonverbal cues (Pathak & Muralidharan, 2020). While we do not focus specifically on this influence in this section, it will be discussed further in section 6.

2.3.1 Verbal

"Emotions are centered in subjective experiences that people represent with language" (Cowen & Keltner, 2017, p. 7900). An individual has the choice of thousands of different semantic terms to describe a large variety of emotional states (Cowen & Keltner, 2017). Understanding this semantic space in which we communicate emotions is necessary to learn more about emotion-related cognition, communication, and physiology (Cowen & Keltner, 2017). There are two main directions on the language individuals use to express their emotional states. The first line of research is based on core affective states (more commonly known as raw feelings) that are pinpointed to a limited number of axes by the two affective dimensions of valence (positive or negative) and arousal (intensity) (Cowen & Keltner, 2017; Russell, 2003). The second line of research uses basic emotion theories to describe the distribution of all emotional states into distinct clusters, ranging in number from 6 to 15 clusters, each encompassing a discrete group of related (Cowen & Keltner, 2017). Cowen and Keltner (2017) found that there are up to 27 varieties of emotional states which aligned with research that

found up to 20 states have unique nonverbal signals. Additionally, their research found that "most categories of emotion share continuous gradients with at least one other category" rather than following distinct clusters (Cowen & Keltner, 2017, p. 7906). This shows that rather than focusing on the rich variety of different emotions, it may be useful to focus on the combination of nonverbal signs that signal different emotional states.

2.3.2 Nonverbal

In 1972, Albert Mehrabian studied the importance of nonverbal communication and concluded that 7% of a message is conveyed through verbal communication, while 38% is conveyed vocally and 55% is conveyed through body language (Jacob et al., 2013). Jacob et al. found in their study that "nonverbal information had an approximately eight times higher impact on the ratings than the verbal information" (2013, p. 792). Nonverbal behaviour can be distinguished into four different channels, namely facial expressions, touch, vocal cues, and bodily gestures (Carmichael & Mizrahi, 2023).

2.3.2.1 Facial Expressions

"Facial expressions reflect emotional states with universal interpretation in shared cultural contexts" (Carmichael & Mizrahi, 2023, p. 2). Emotions can be expressed directly in our facial expressions; however, these emotional characteristics are complex and diverse (Lin & Hsu, 2023). Facial expressions can be divided into macro and micro-expressions, where macro expressions are "prototypical displays of emotions" and micro expressions are "virtually undetectable" expressions (LaPalme et al., 2023, p. 2). Macro expressions are consciously displayed, high-intensity emotional expressions that involve a large area of facial movement, which lasts 0.5 to 4 seconds (LaPalme et al., 2023; Lin & Hsu, 2023). In contrast, micro expressions are rapid, brief, low-intensity expressions that usually occur unconsciously or even involuntarily 0.065 to 0.5s LaPalme et al., 2023; Lin & Hsu, 2023). LaPalme et al. distinguished a third form of emotional expression, naming it 'meso expressions' (LaPalme et al., 2023). Meso expressions are midway between micro and macro expressions, for instance, they are less transparent and intense than macro expressions but last longer and are more intense than micro-expressions. They are compared to "subtle" facial expressions which are defined as emotional expressions that involve only a few appearance changes in the face (Matsumoto & Hwang, 2014). Additionally, meso expressions occur within the

awareness of the person expressing the emotions and are more nuanced naturalistic and more reliably detected (LaPalme et al., 2023).

2.3.2.2 Vocal Cues

The primary attributes an individual's voice and speech pattern can be characterised by are pitch, loudness, timbre, and tone (Dasgupta, 2017). Hall et all. used the term 'paralanguage' to refer to "vocal behaviour that occurs with or substitutes for words, including fundamental frequency; amplitude; rate; pitch contour; and sighs, cries, and other non-word sounds" (Hall et al., 2019, p. 277). One's paralanguage is integral in face-to-face interaction, as it can convey additional information about someone's emotional state or it can add information independent of words, such as laughing or sighing (Hall et al., 2019). Vocal cues are tied to the current affective states of an individual, meaning that how someone is feeling, or someone's mood affect their paralanguage (Hall et al. 2019). For instance, an agitated emotional state can be characterised by increased vocal loudness and pitch (Dasgupta, 2017). A few more examples can be found in Table 2.

Table 2

Examples of How Vocal Cues are Tied to Different Affective States (Hall et al., 2019)

Vocal Cues	Emotion/Mood
Higher pitch, greater pitch range, more loudness, faster speech rate	Joy or elation
Lower pitch, reduced loudness, slower rate, longer pauses	Sadness
Higher pitch, voice tremor, speech dysfluencies; stutter, incoherent sounds, repetition	Anxiety

2.3.2.3 Body Language & Gestures

In addition to facial expressions and vocal cues, body language is important to interpersonal relationships, and thus communication (Oggiano & Adriani, 2023). It appears through body language individuals are constantly in communication with each other, whether voluntary or not. Every action of our body can be observed as communication, for instance even being motionless is significant. (Oggiano & Adriani, 2023). In 1970, Birdwhistell founded a discipline called 'kinesics' to divide body movements into units and order them into a system (Oggiano & Adriani, 2023). According to kinesics, the body can be divided into eight main sections and then applied a series of symbols to identify different types of movements or body positions (Oggiano & Adriani, 2023).

Within body language, bodily posture plays a vital role in communicating an individual's affective state (Van Cappellen et al., 2023). Similarly to facial expressions, elements of posture can change in meaning based on how it is combined with other elements. Most studies of body posture focus on the differentiation between positive from negative affect, however, there is also a large body of research focused on how much space a body takes up and the affects associated with it (Van Capellen et al., 2023). For instance, postural expansion can signal dominance, positive affect, or even feelings of warmth (Van Capellen et al., 2023).

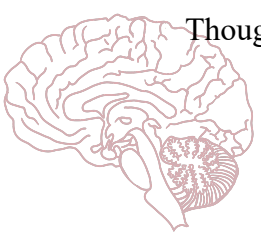
Another instance of body language is gestures, which can be defined as signals produced by mainly hand and arm movements (Oggiano & Adriani, 2023). Many scholars have used the five categories, determined by Ekman (2004), to distinguish these signals, namely emotional expressions, illustrators, manipulators, regulators, and emblems (Oggiano & Adriani, 2023). Illustrators and emblems are often used unconsciously (Oggiano & Adriani, 2023). Illustrators are defined as actions individuals have learned to illustrate and emphasise what they say, in this case, emphasising verbal communication (Oggiano & Adriani, 2023). For instance, placing a hand with a flat palm in the centre of the chest can convey empathy (Farley et al., 2021). However, gestures can also replace verbal communication, through for example mimicking what the meaning suggests, which refers to emblems (Oggiano & Adriani, 2023).

Whether it is body language, vocal cues, or facial expressions, all these forms of verbal and nonverbal communication are crucial to emotional communication, which in turn is essential to EI. These behaviours do not only allow for emotional expression, but they are also the key to emotion understanding. Therefore, since these behaviours form the basis of emotional communication, they will also be fundamental to observable EI behaviours.

3. METHODOLOGY

3.1 Research Design

To answer the research question, this study aimed to determine key themes in order for the creation of a codebook where EI is expressed into concrete observable behaviours. Though there is an extensive amount of knowledge on EI as described in the previous



section, there is little focus on behaviours that directly manifest EI in observable ways, particularly in the context of workplace interactions and team dynamics. Therefore, an exploratory study is chosen as it allows gaining such insights (Saunders et al., 1996). In order to find the observable behaviours, we explored different operationalisations of EI. As this study focusses on the potentially underlying behaviours behind the various measurement scales, a qualitative approach was chosen. The exploratory and qualitative nature of this study allows for a holistic approach in order to uncover key themes (dimensions of interest) (Staller, 2010).

3.2 Data Collection

For the data collection, this study made use of secondary data. The secondary data used is a combination of white literature, namely peer-reviewed scientific papers, and grey literature, namely "knowledge artefacts that are not the product of peer-review processes" (Adams et al., 2016, p. 433).

Firstly, based on the systematic literature review of Bru-Luna et al. (2021) a methodological review of the literature was done to identify open-accessible measurement scales. This review by Bru-Luna et al. (2021) listed all measurement scales published in peer-reviewed journals from 1900 till 2020, which had empirical and quantifiable results on psychometric properties, and thus was deemed as a comprehensive list of measurement scales. The measurement scales were found using Scopus and Web of Science. The inclusion criteria applied to the measurement scales were a) English or the English variant and b) Accessible with the University of Twente access. No more inclusion criteria were considered as the accessibility already severely limited the amount of measurement scales found.

Secondly, in order to address the scarcity of openly accessible measurement scales and to create a comprehensive corpus of data, a search was done for qualitative papers on EI. The papers were found through a search in Scopus and Web of Science with the broad search terms of "EI" and "qualitative study". Articles were included only if they measured EI in a qualitative way, so through for instance interviews of professionals. Additionally, the inclusion criteria of an impact factor above 1.5 was applied

Lastly, to not limit the study to scientific peer reviewed knowledge, which has been criticised on clarity and conciseness, grey literature was included. Grey literature has been largely defined as knowledge artefacts that are not subjected to the same peer-review process as scientific journal articles and can be used to increase the relevance and impact of management and organisation studies (Adams et al., 2016). A variety of blog posts and company (sample) reports were found through Google searches with the following search terms: (1) “emotional intelligence behaviours” and (2) “emotional intelligence actions”. These additional sources were screened and included if they extended beyond merely discussing trait or ability dimensions. Additionally, the source needed to originate from an established company/organisation.

3.3 Corpus of Data

3.3.1 White Literature

3.3.1.1 Quantitative: Measurement Scales

The following section will describe the measurement scales that were found and where they were extracted from. In total 8 measurement scales were found of which 5 use the Ability EI model (mainly Mayer & Salovey), 2 use a Trait model, and 1 was conceptualised under an Emotional Competence model (Bru-Luna et al., 2021).

The measurement scales combined have 392 items, all based on either a 7-point Likert scale or a 5-point Likert scale.

Table 3

Main Characteristics of Measurement Scales, adapted from Bru-Luna et al. (2021)

Measure	Type of Measure	Structural Characteristics	Original Language	Reliability	Validity	Source
Trait Meta-Mood Scale (TMMS)	Ability	Format: scale (five-point Likert) Num. items: 48 Dimensions and items: ·Attention to feelings ·Emotional clarity ·Repair of the emotions	English	Internal consistency: α = 0.82–0.88 Test–retest: None	Convergent: (+): Self- Consciousness Scale, optimism (LOT) and beliefs about the changeability of negative moods (CES-D), and the Expectancies for Negative Mood Regulation (−): ambivalence over emotional expression, depression	Salovey et al. (1995)
Schutte Self-Report Inventory (SSRI)	Ability	Format: questionnaire (five-point Likert) Num. items: 33 Dimensions and items: ·Appraisal and expression of emotion ·Regulation of emotion ·Utilization of emotion	English	Internal consistency: α = 0.90 Test–retest: *r* = 0.78 (after 2 weeks)	Internal structure: Principal- components analysis Convergent: (+): attention to feelings and mood repair (TMMS), optimism (LOT), and openness to experience (BFP) (−): pessimism (LOT), TAS, ZDS, and BIS	Schutte et al. (1998)
Wong and Law's Emotional Intelligence Scale (WLEIS)	Ability	Format: scale (7-point Likert) Num. items: 16 Dimensions and items: ·Self-emotional appraisal ·Others' emotional appraisal ·Regulation of emotion ·Use of emotion	English	Internal consistency: α = 0.76–0.89 Test–retest: None	Internal structure: Exploratory factor analysis Convergent: (+): EQ-i Discriminant: Not correlated with BFP	Wong and Law (2002)
Self-Rated Emotional Intelligence Scale (SREIS)	Ability	Format: scale (five-point Likert) Num. items: 19 Dimensions and items:	English	Internal consistency: α = 0.91 Test–	Internal structure: Confirmatory factor analysis Convergent: (+): WLEIS and SREIS	Brackett et al. (2006)

		·Perceiving emotions ·Using emotions ·Understanding emotions ·Managing emotions		retest: r = 0.75–0.83 (after 2 weeks	(+/−): BFP Discriminant: Acceptable discriminant validity vis-à-vis the Big Five Personality variables because of the criticism from scholars that EI is "little more than a repackaging of personality characteristics"	
Emotional Skills and Competence Questionnaire (ESCQ)	Ability	Format: questionnaire (five-point Likert) Num. items: 45 Dimensions and items: ·Perceive and understand emotions ·Express and label emotions ·Manage and regulate emotions	Croatian	Internal consistency: α = 0.67–0.90 Test–retest: None	Internal Structure: Confirmatory factor analysis Convergent: (+): SSRI, SSI, and BFP (−): TAS	Takšić et al. (2006)
Trait Emotional Intelligence Questionnaire (TEIQue)	Trait	Format: questionnaire (five-point Likert) Num. items: 153 Dimensions and items: ·Emotionality ·Self-control ·Sociality ·Well-being	English	Internal consistency: α = 0.89–0.92 Test–retest: None	Internal structure: Principal component analysis Convergent: (+): BFP	Petrides (2009)
Rotterdam Emotional Intelligence Scale (REIS)	Trait	Format: scale (five-point Likert) Num. items: 28 Dimensions and items: ·Self-focused emotion appraisal ·Other-focused emotion appraisal ·Self-focused emotion regulation ·Other-focused emotion regulation	Dutch	Internal consistency: α = 0.80–0.85 Test–retest: None	Internal structure: Confirmatory factor analysis Convergent: (+): WEIS, TEIQue, and PEC Criterion: (−): self-focused emotion regulation with tutors' perceived stress (+): other-focused emotion regulation with tutors' work engagement, jobseekers' other-rated interview performance and leaders' transformational leadership style	Wang et al. (2022)
Profile of Emotional Competence (PEC)	Other	Format: scale (five-point Likert) Num. items: 50 Dimensions and items: ·Intrapersonal emotional competence ·Interpersonal emotional competence	French	Internal consistency: α = 0.93 Test–retest: None	Convergent: (+): TEIQue-SF Criterion: (+): happiness, subjective health, social relationships, and positive affectivity (−): negative affectivity Divergent: Not correlated with general cognitive ability	Brasseur et al. (2013)

3.3.1.2 Qualitative

In addition to the data extracted from quantitative papers, 2 qualitative papers were found to make the corpus of data more comprehensive. Initially, five qualitative papers were identified; however, due to their low impact factors, the number was reduced to two. From each paper either the result section, quotes from interviews/focus groups, or first-order codes were extracted, all pertaining to EI. Table 4 provides a brief overview of the different papers and what was extracted, and their source.

Table 4

Qualitative Papers

Article Name	IF*	Extracted Text	Source
Being an Emotional Business Leader in the Time of the COVID-19 Pandemic: The Importance of Emotions during a Crisis	3.9	Section 4.2 till 4.3.2.	Margheritti et al. (2023)
Social enablers of Industry 4.0 technology adoption: transformational leadership and emotional intelligence	6.6	First-order codes 10A till 13C from Figure 1.	Van Dun and Kumar (2023)

*Impact Factor of the Journal

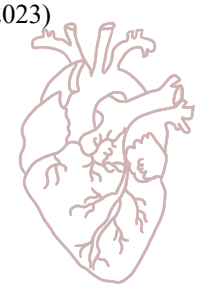
3.3.2 Grey Literature

Lastly, 7 instances of grey literature were found, of which 2 are company sample reports for their EI tests, and 5 are blog articles. Table 5 provides a brief overview of the different instances and their source.

Table 5

Grey Literature Data Sources

Name	Type	Source Information	Source
ECR	Company Sample Report	RocheMartin developed evidence-based and psychometric EI tools that are validated through peer-reviewed empirical research. The company has worked with numerous Fortune500 companies to build social and emotional skills. They describe their approach as translating EI competencies into the language of business performance.	RocheMartin (n.d.)
MEIA-R	Company Sample Report	SIGMA develops science-based assessment products and leadership coaching services. Their assessments are to aid individuals professionals in for instance hiring employees and developing leaders. They have conducted over 4 million assessments and received nearly 4500 academic citations.	SIGMA Assessment Systems (2023)



8 Behaviors of Emotionally Intelligent People	Blog Article	Criteria provides assessments for talent hiring, validated to measure qualities that predict job success. They have conducted over 50 million assessments.	Garcia (2020)
Emotional Intelligence: How We Perceive, Evaluate, Express, and Control Emotions	Blog Article	Verywell Mind is an information resource that covers a variety of subjects including emotional well-being, mental health, therapy, and self-care strategies. Their content is grounded on evidence-based research and contributions of their mental health professionals.	Cherry (2024)
Five behaviors to help develop your Emotional Intelligence	Blog Article	Stewart Leadership is a consulting firm that guides leaders, teams, and organisations. They provide tailored and practical human capital consulting, coaching, and training solutions.	Stewart (2023)
How to Improve Your Emotional Intelligence	Blog Article	The Division of Continuing Education (DCE) at Harvard University provides programs to learn core business competencies. Their aim is making Harvard education accessible to lifelong learners by bringing academics and teaching capabilities.	Harvard DCE (2019)
How to improve emotional intelligence and your life	Blog Article	BetterUp is a human transformation platform that provide virtual coaching and focus on behavioural change. They use behavioural science, analytics, and evidence-based coaching to coach and guide individuals, teams, and organisations.	Perry (2023)

All the measurement scale items, first-order codes, or (partial) sections were extracted from the sources and kept in separate files in order to be used for the data analysis.

3.4 Data Analysis

Following the data collection, the analysis of the data has taken place in two steps. The first step was a qualitative content analysis. To conduct the qualitative content analysis, the data was split into two categories (i.e., self-oriented EI and other-oriented EI) to investigate per category what was notable. First, the measurement scales that have pre-assigned categories, were split into the categories according to the four-branch model of Mayer and Salovey (1993). Second, all the data was divided into two categories namely: self-oriented EI or other-oriented EI and then analysed. When splitting the data, some linking paragraphs or introductory paragraphs or paragraphs from result sections, from the blog articles and qualitative papers, were left out to focus the data. However, in the second step, these paragraphs were used for context. The purpose of the content analysis was to investigate and compare the lexicon used across the different categories, providing an outline for the next step. The focus of this analysis was the specific wording and the frequency used within the categories which enables the

identification of major themes (Saunders et al., 1996). This was done by analysing the frequent verbs and nouns of the various data split into the categories.

The second step was the Thematic Analysis (Braun & Clarke, 2006), to explore beyond the identified categories, aiming to identify patterns within the themes that could imply (non)verbal behaviour (Saunders et al., 1996). Through this inductive approach, the themes derived from the data could lead to suggestions for the development of codes that determine observable behaviours. We followed the six phases of thematic analysis determined by Braun and Clarke (2006) as guidelines. The six phases are: familiarising yourself with your data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report (Braun & Clarke, 2006). These phases contribute to making thematic analysis more systematic and structured. However, due to the nature of our research, we needed to adapt these phases to suit our study. We familiarised ourselves with the data by categorising it and conducting a content analysis. Initial codes were then generated both inductively, based on the data itself, and deductively, by applying the categories identified in the content analysis. Instead of focusing solely on broader themes like in the next phase of Braun and Clarke (2006), we aimed to identify more specific behavioural codes. Consequently, we refined the initial codes into observable behaviours and determined the main categories for these codes. Finally, the phase of producing the report corresponds to our results section. For both analyses, we used the software Atlas.ti.

4. RESULTS

The results of this study address the research question: “How can Emotional Intelligence be measured through observable behaviours?” with the sub research question of: “What (non) verbal behaviours can be associated with EI?”

4.1 Qualitative Content Analysis

For the content analysis, first, we looked at the four-branch model split and the difference in lexicon per dimension. Next, we considered the overall frequency of words in both the categories (Self- and Other-oriented EI) combined to identify major themes which can be used for the thematic analysis. Third, we looked at the two categories separately to give an overview of the lexicon used in the data per category.

4.1.1 Four-Branch Model Split

Originally, the plan was to separate the measurement scales, which had their items pre-assigned according to the four-branch model, to determine if word usage differed by dimension. We aimed to examine the lexicon for each dimension, as the four-branch model and its dimensions are frequently used as a basis for measuring EI (Karani & Desai, 2024). Specifically, we wanted to determine if there were differences in the words used for each dimension to potentially identify distinct actions associated. To achieve this, we had to extract all the measurement scales from the papers, to solely have the items and, where relevant, the pre-determined labels per group of items. However, during this, we only found three of the scales were divided by the four dimensions, namely REIS, WLEIS, and SREIS. WLEIS and SREIS are both ability measurement scales, however, REIS is categorised as a trait EI (Bru-Luna et al., 2021). This emphasises the fact that the four-branch model is used as a foundation for trait EI measures as well. Additionally, all three measurement scales have different approaches to labelling (see Table 6).

Table 6

Dimensions per Measurement Scales

SREIS	REIS	WLEIS
Perceiving Emotion	Self-focused Emotion Appraisal	Self-Emotions Appraisal
Use of Emotion	Other-focused Emotion Appraisal	Others-Emotions Appraisal
Understanding Emotion	Self-focused Emotion Regulation	Use of Emotion
Managing Emotion	Other-focused Emotion Regulation	Regulation of Emotion
Social Management		

Firstly, the limited disclosure from only three models regarding the items and which dimension they belong to results in a scarcity of knowledge about the actual composition of these dimensions. Secondly, this shows the different interpretations and use of the four branch model dimensions within the operationalisations of EI. Even within the same conceptualisation, researchers use different interpretations or versions of the dimensions which makes it challenging to compare them and unify them. Table

7 displays our interpretation and division of the dimensions of the three measurement scales. Analysing other researchers' interpretations Working with the interpretation of the interpretation of other researchers adds another layer of subjectivity into the process.

Table 7

Division per Four-Branch Model

	Understanding Emotions	Perceiving Emotion	Managing Emotions Self	Managing Emotions Others
SREIS	Understanding Emotion	Perceiving Emotion	Managing Emotion	Social Management
REIS	Self-focused Emotion Appraisal	Other-focused Emotion Appraisal	Self-focused Emotion Regulation	Other-focused Emotion regulation
WLEIS	Self-Emotions Appraisal	Others-Emotions Appraisal	Use of Emotion Regulation of Emotion	-

Nevertheless, we ran a content analysis on the nouns and verbs to identify any distinctions between the dimensions (see Table 8). We focused on words with a count of at least three to be considered frequent. Across the dimensions, we found that at least two of the following words appeared: 'emotions,' 'emotion,' 'feel,' and 'feelings.' These terms are very common in discussions of EI, so they do not provide new insights. Similarly, 'people' and 'self' are common in the categories of Managing Emotions Self and Others, and are directly relevant to these dimensions, thus adding no new information. This leaves the noun 'vocabulary' in the Understanding Emotion dimension and the verbs 'control' and 'handle' in the Managing Emotions Self' dimension. 'Vocabulary' is a frequent noun, but it comes from only one measurement scale (SREIS). For instance, the following items: "*I have a rich vocabulary to describe my emotions …. I have the vocabulary to describe how most emotions progress from simple to complex feelings…My "feelings" vocabulary is probably better than most other persons' "feelings" vocabularies."* (Brackett et al., 2006) all mention vocabulary. However, given the fact that there are too few items within the dimensions around this noun, it is not possible to draw broader conclusions.

Table 8

Frequent Nouns and Verbs per Dimension

Dimension	Noun/Proper Noun/Verb	Count	Percent
Understanding Emotions	**Emotions**	6	11.76%
	Feel	5	9.80%
	Feelings	4	7.84%
	Emotion	3	5.88%
	Know	3	5.88%
	Vocabulary	3	5.88%
Perceiving Emotion	**People**	9	15,52%
	Emotions	8	13,79%
	Feel	3	5,17%
Managing Emotions Self	**Emotions**	7	11,48%
	Emotion	4	6,56%
	Control	3	4,92%
	Handle	3	4,92%
	Self	3	4,92%
Managing Emotions Others	**Feel**	4	9,09%
	Know	4	9,09%
	People	3	6,82%
	Person	3	6,82%

Note. Bolded words indicate repetition in other categories.

'Handle' and 'control' are considered synonyms of each other and are used across the items from the three measurement scales. Consequently, as these were both verbs, we opted to explore the frequent verbs in order to narrow the analysis and determine if there are greater variations in verb usage across the dimensions (see Table 9). We chose to limit the results to a count of three or higher. Here we see that the verb 'feel' is frequent in every dimension but in 'Managing Emotions Self', in which 'feel' does not appear at all. Notably, in the dimension of Understanding Emotion and Managing Emotions Others both have 'feel' and 'know' as the top two frequent verbs. Once more, we observe that only three words are exclusive to three dimensions.

Table 9

Frequent Verbs per Dimension

Dimension	Verb (inferred to base form)	Count	Percent
Understanding Emotions	**Feel**	5	23.81%
	Know	3	14.29%
	Understand (understanding)	3	14.29%
Perceiving Emotion	**Feel (feeling)**	4	16.67%
	Look (looking)	3	12.50%
Managing Emotions Self	Handle	6	10.71%
Managing Emotions Others	**Feel (feeling)**	5	20.83%
	Know	4	16.67%

Note. Bolded words indicate repetition in other categories.

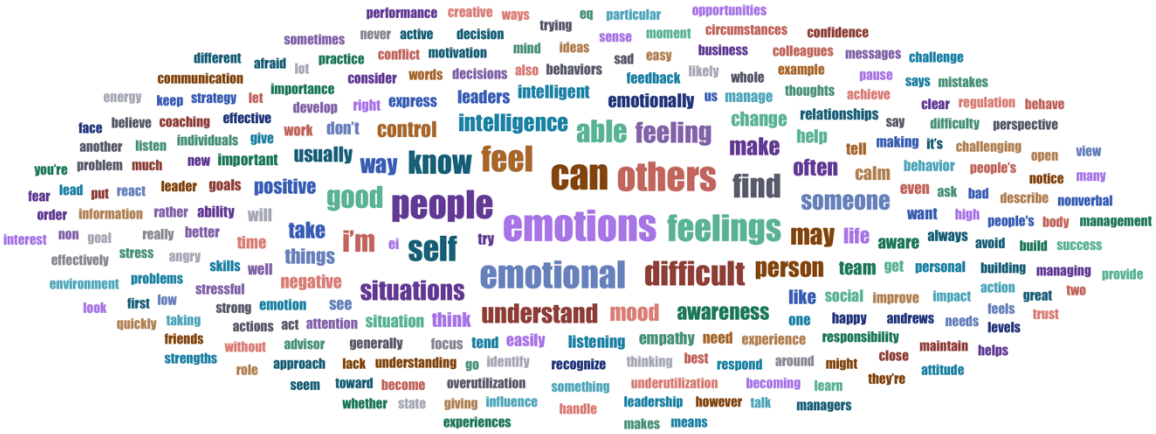
Considering the restricted number of items per dimension, we find the outcomes of the word frequency analysis to be mostly inconsequential. Furthermore, across these three measurement scales, the lexicon appears predominantly similar, with variations primarily evident in verb usage. The limited variety of the lexicon and the small number of items in this division prevent us from identifying interesting insights or key themes within the data. Therefore, we use the division of self-oriented and other-oriented EI to find major themes in the data.

4.1.2 Self-oriented & Other-oriented Content Analysis

To start the content analysis, we looked at both categories together. Through Atlas.ti's word frequency analysis we created a word cloud (see Figure 1) filtering the data with a Stop List (exclude words that do not convey particular meaning such as 'the' and 'a' (see Appendix A for the full Stop List). The word cloud illustrates the most frequent words, namely the words that comprise one percent or more of the data: emotions (2.01%), can (1.70%), others (1.64%), people (1.57%), emotional (1.25%), feelings (1.01%).

Figure 1

Word Cloud of Self-Oriented EI and Other-Oriented EI



These words are logically relevant for discussing the basics of EI, therefore, it was essential to examine words that describe EI more specifically and can provide examples of EI-related behaviour, for instance, verbs which are more action-focused words (see Table 10). Looking at all the verbs used in their base form, we see 18 verbs which comprise more than one percent of all the verbs. When it comes to verbs like 'make,

'find, 'take, 'am', 'try', 'want', and 'get' they are used to construct sentences for items of scales rather than describing EI for instance: "When I don't like a person, I **find** [emphasis added] ways to let him/her know." (Takšić et al. 2006) or: "I **try** [emphasis added] to learn from difficult situations or emotions." (Brasseur et al., 2013).

Table 10

Frequent Verbs of Both Categories

Verb (inferred to base form)	Count	Percent
Feel (feeling/feels/felt)*	120	5.13%
Make (made/makes/making)	60	2.56%
Find (finding/found)	57	2.44%
Understand (understanding/understood)	52	2.22%
Know (knowing)	51	2.18%
Take (taken/taking)	44	1.88%
Think (thinking/thinks/thought)	39	1.67%
Am ('m)	38	1.62%
Try (tried/tries/trying)	36	1.54%
Help (helped/helping/helps)	34	1.45%
Manage (managed/managing)	30	1.28%
Say (said/saying/says)	30	1.28%
Want (wanted/wants)	30	1.28%
See (saw/seen)	28	1.20%
Listen (listening/listens)	27	1.15%
Tell (tells/told)	27	1.15%
Get (gets/getting/got)	24	1.03%
Give (gave/giving)	24	1.03%

Note. Bolded words indicate noteworthy verbs.

Notably, some of these verbs are more related to processes that happen within a person like for instance 'thinking', while other verbs focus on an action like 'helping'. Additionally, some verbs focus on the action of communicating such as 'say'. Based on this deductive interpretation of the orientation of the verbs, we grouped the verbs based on their primary focus (see Table 11).

Table 11

Primary Focus Verbs

Cognitive Focus	Task Focus	Communication Focus
Feel	Help	Say
Understand	Manage	Listen
Know	Give	Tell
Think		

See

Next, we compared how the verbs differ between the self-oriented and other-oriented categories.

4.1.3 Self-oriented & Other-oriented Frequent Verbs

To thoroughly delve into the data and extract potential themes, for the categories, we concentrate on the frequencies of verbs, nouns, and proper nouns. Proper nouns are names of for instance people, geographical locations, or words that are capitalised. We chose to include proper nouns because some of the data contains nouns that are consistently capitalised, and thus identified as proper nouns by Atlas.ti. Firstly, we are looking at the frequent verbs of the self-oriented category (see Table 12).

Table 12

Frequent Verbs Self-Oriented Category

Verb (inferred to base form)	Primary Focus	Count	Percent
Feel (feeling/feels/felt)	Cognitive	58	4.32%
Make (made/makes/making)		34	2.53%
Think (thinking/thought)	Cognitive	34	2.53%
Find (finding/found)		30	2.23%
Take (taking)		30	2.23%
Know (knowing)	Cognitive	28	2.08%
Manage (managed/managing)	Task	27	2.01%
Try (tried /trying)		25	1.86%
Change (changes/changing)	Task	20	1.49%
'm		19	1.41%
Become (becomes/becoming)		17	1.27%
Express (expressing)	Communication	17	1.27%
Say (said/saying/says)	Communication	17	1.27%
Achieve (achieved/achieving)	Task	16	1.19%
Help (helping/helps)		16	1.19%
Tend		16	1.19%
Understand (understanding/understood)	Cognitive	16	1.19%
Get (gets/getting)		15	1.12%
Give (gave/giving)	Task/Cognitive	15	1.12%
Recognize (recognized/recognizing)	Cognitive	15	1.12%

Note. Bolded words indicate noteworthy verbs.

In addition to the previously identified verbs like 'make' and 'take', in the self-oriented category we see two more verbs, namely 'tend' and 'get', that are more so used for constructing sentences. Additionally, we see that 'become' and 'give' are two words where what comes after is important in determining the purpose of the verb. For instance, with 'become' we see that it could be focused on what someone is feeling:

"When I **become upset** [emphasis added] I remind myself of all the pleasures in life." (Salovey et al., 1995). On the other hand, it could be more cognitively focused by having to become something: "Receiving honest, constructive feedback is key to **becoming self-aware** [emphasis added]**.**" (Harvard DCE, 2019).

When it comes to 'give', the prepositions that follow give meaning to the verb, like: "I find it difficult to **give up** [emphasis added] things I know and like" (Petrides, 2009). The other usage option is action-focused, like: "You **give** [emphasis added] and expect nothing in return." (Stewart, 2023). Diversely, in the other-oriented category 'give' is primarily associated with giving feedback, therefore being mostly task-focused; "**Giving and receiving feedback** [emphasis added] can be one of the most challenging and stressful parts of your leadership role." ("Stewart, 2023). Another example is: "However, this doesn't mean they cannot **give others difficult feedback** [emphasis added] — in fact, they may be better at delivering this 'tough love' because they understand the other person and want to help them improve." (Harvard DCE, 2019).

However, 'give' is not a frequent verb in the other-oriented category, whereas 'feel' is (see Table 13). We can see that both categories have 'feel' as the top result, which is logical when talking about EI. If we look at 'feel' more closely we can see that within the self-oriented category, it refers to feeling an emotion "Most days, I **feel** [emphasis added] great to be alive." (Petrides, 2009). 'Feel' can also refer to knowing or understanding what the individual feels: "Emotionally intelligent leaders are aware of their emotional experience and know what they are **feeling** [emphasis added] most of the time." (RocheMartin, n.d.). Contrastingly, within the other-oriented category, 'feel' refers to noticing or understanding how someone else feels: "An ability to identify and describe what people are **feeling** [emphasis added]." (Cherry, 2024). Another way is to express how others make the individual feel: "I **feel** [emphasis added] uncomfortable if people tell me about their problems, so I try to avoid it." (Brasseur et al., 2013). A third variation is to influence other people's emotions: "When someone I know is in a bad mood, I can help the person calm down and **feel** [emphasis added] better quickly." (Brackett et al., 2006). This indicates that while feeling is a crucial aspect of EI, it can be directed in various ways which changes the action that goes along with it.

Table 13

Frequent Verbs Other-Oriented Category

Verb (inferred to base form)	Primary Focus	Count	Percent
Feel (feeling/feels/felt)	Cognitive	62	6.22%
Understand (understanding/understood)	Cognitive	36	3.61%
Find (finding/found)		27	2.71%
Make (made/makes/making)		26	2.61%
Listen (listening/listens)	Communication	24	2.41%
Know	Cognitive	23	2.31%
Tell (tells/told)	Communication	22	2.21%
Want (wanted/wants)		20	2.01%
Am (‘m)		19	1.91%
Help (helped/helping/helps)	Task	18	1.81%
See (saw/seen)	Cognitive	18	1.81%
Take (taken/taking)		14	1.40%
Say (said/says)	Communication	13	1.30%
Try (tries/trying)		11	1.10%
Improve (improving)	Task	10	1.00%
Put (puts/putting)	Cognitive	10	1.00%
Work (worked/working/works)		10	1.00%

Note. Bolded words indicate noteworthy verbs.

Additionally, when further comparing the frequent verbs per category, we see that the verbs from the self-oriented category are mostly cognitive, or task-focused, whilst the verbs from the other-oriented category are mostly cognitive and communication-focused. Moreover, we can also see that the cognitive and task-focused verbs have higher counts in the self-oriented category, and the same goes for the cognitive and communication-focused verbs in the other-oriented category. This leads us to believe that there is a difference between the lexicon used in the two categories which can be further explored. Therefore, as a next step, we are comparing the frequent verbs found in both categories.

4.1.4 Cross-Comparison Frequent Verbs

First, we look at ‘understand’. We can see that in the self-oriented category, the understanding is aimed internally: “I **understand why** [emphasis added] I feel the way I feel.” (Wang et al., 2022) or: “For example, one of the interviewees stated that he recognized his (destructive) emotions and **understood the need** [emphasis added] to manage them better.” (Margheritti et al., 2023). Whilst for the other-oriented category it is focused on understanding others: “I have good **understanding** of the emotions **of people** [emphasis added] around me.” (Wong & Law, 2002). Another example is: “And

with more **understanding of where they're** [emphasis added] coming from, you can come to an agreement." (Perry, 2023). Notably, where understanding is the second most frequent verb, comprising 3,51% of the verbs in the other-oriented category, it only comprises 1.19% of the verbs in the self-oriented category. Additionally, in terms of potential behaviours, observing self-oriented understanding is challenging as it is more of a cognitive process. However, other-oriented understanding is something that can be more easily vocalised.

Next, we have 'know' which is another frequent verb in both categories. In the self-oriented category, 'know' is mostly used to describe an emotion or emotional state, for instance: "When I experience a positive emotion, I **know** [emphasis added] how to make it last." (Schutte et al., 1998). Whereas in the other-oriented, 'know' has three different uses. The first use is as a synonym for understanding, for example: "For example, they **know** [emphasis added] that if someone is feeling frustrated and the situation is not resolved soon, things are likely to escalate." (Garcia, 2020). The second use is in the sense of knowing when to say something; "I **know when to speak** [emphasis added] about my personal problems to others." (Schutte et al., 1998). Lastly, its third use is in the context of understanding which action to take to influence someone in a particular way; "They understand the individual strengths and weaknesses of team members and **know how to motivate and support each person** [emphasis added] effectively." (Perry, 2023). Similarly, to 'understand, we see that in the self-oriented category, the verb is used in a cognitive manner and is closely related to feeling emotions of oneself. In contrast, in the other-oriented category, while it may also be cognitively focused, it is often followed by an action.

The last frequent verb the categories have in common is 'help'. Distinctively, in the self-oriented category, 'help' is mostly used to construct sentences, like: "Using creativity can **help** [emphasis added] us generate new ideas, make valuable connections, and implement novel solutions to existing problems." (SIGMA Assessment Systems, 2023). However, in the other-oriented category the verb is often used in the context of helping people for instance feel better: "I am not very good at **helping others to feel better** [emphasis added] when they are feeling down or angry." (Brackett et al., 2006).

What we have observed with all these frequent verbs is that, although both categories contain them, they are used differently depending on the context provided by the words before or after them. For instance, with the verb "give," the noun that follows often defines its purpose. Therefore, in the next section, we will examine frequent nouns that are frequent in both categories.

4.1.5 Self-oriented Frequent Nouns

In this section, we will examine the nouns and proper nouns that are frequent in both categories. First, we consider the nouns that stand out per category and then we will compare the nouns that are in both categories.

In the self-oriented category (see Table 14), three nouns particularly stand out as they are neither directly related to emotions nor common nouns like 'things'. ‘Awareness’ is the first noun, and when we take a closer look at how ‘awareness’ is used we see that it is mainly used in combination with ‘self’, to talk about ‘self-awareness’, and it is almost always related to the awareness of emotions: “Complete and authentic **awareness** [emphasis added] of emotions.” (Margheritti et al., 2023) or: “**Self-awareness** [emphasis added] allows people to consider the many different factors that contribute to their emotions.” (Cherry, 2024).

Table 14

Self-Oriented Category Frequent Nouns

Noun	Primary Focus	Count	Percent
Emotions	Cognitive	117	6.45%
Self	-	65	3.58%
Feelings	Cognitive	51	2.81%
People	-	40	2.20%
Situations		31	1.71%
Life	-	30	1.65%
Awareness	Cognitive	25	1.38%
Mood	Cognitive	25	1.38%
Things	-	25	1.38%
Way	-	22	1.21%
Control	Cognitive	19	1.05%

Note. Bolded words indicate noteworthy nouns.

Secondly, we discuss ‘control’. While having control over something might appear task-focused, in the self-oriented category we consider it a cognitive noun because it is primarily used to refer to ‘self-control’ and managing one’s emotions; “I need a lot of

self-control [emphasis added] to keep myself out of trouble." (Petrides, 2009). Gaining control over your emotions seems like a process that mostly happens internally, as for instance controlling your temper means not showing a certain behaviour. "I am able **to control my temper** [emphasis added] so that I can handle difficulties rationally." (Wong & Law, 2002).

The next notable noun is 'mood'. 'Mood' is mostly used in a similar way that emotions and feelings are used, namely talking about positive or negative affective states; "When I am in a **good mood** [emphasis added], it is difficult to bring my **mood down** [emphasis added]." (Takšić et al., 2006). In the self-oriented category, it is a frequent noun alongside emotions and feelings, with a count of 25. Meanwhile in the other-oriented category, it only has a count of 9. This emphasises that in the self-oriented category, the primary focus of the nouns is cognitive. The rest of the frequent nouns are mainly used to either construct a sentence (things) or give context in a sentence, for instance: "Some of the major events of **my life** [emphasis added] have led me to re-evaluate what is important and not important." (Schutte et al., 1998).

4.1.6 Other-oriented Frequent Nouns

Before continuing the cross-comparison of the two categories, we will discuss the nouns that stand out in the other-oriented category (see Table 15). The first frequent noun we discuss is 'empathy'. What is interesting about 'empathy' is that it is used mostly on its own in the context of something an emotionally intelligent person should have, for instance: "**Empathy** [emphasis added] is a form of emotional awareness that enables you to relate to others' feelings and viewpoints genuinely." (Harvard DCE, 2019). Another example is: "**Empathy** [emphasis added] is an incredibly important skill in most situations, and particularly for roles that require interaction and/or collaboration with other people." (Garcia, 2020). Although empathy involves being aware of emotions, similar to 'awareness' in the self-oriented category, it is highly relational, as it pertains to understanding other people's feelings.

When analysing frequent verbs, we referred to the fourth primary focus as communication. However, for nouns, it seems more appropriate to label this category as relational, as it encompasses not just the act of communication, but also skills and behaviours related to interacting with others.

Table 15

Other-Oriented Category Frequent Nouns

Noun	Primary Focus	Count	Percent
People	Relational	107	8.42%
Emotions	Cognitive/Relational	40	3.15%
Person	-	29	2.28%
Feelings	Cognitive/Relational	27	2.12%
Intelligence	-	21	1.65%
Team	-	21	1.65%
Empathy	Relation	18	1.42%
Skills	Relation/Task	16	1.26%
Way	-	16	1.26%
Behavior	Relation/Task	13	1.02%
Relationships	-	13	1.02%
Situation		13	1.02%

Note. Bolded words indicate noteworthy nouns.

Notably, 'skills' and 'behavior' are the next two prominent nouns in the other-oriented category. This is significant because, in the self-oriented category most nouns focus on cognitive processes related to emotions, whereas here the emphasis is on abilities or actions related to emotions. 'Skills' is primarily associated with the concept of 'social skills': “Enhance your **social skills** [emphasis added].” (Perry, 2023). Moreover, when examples of 'skills' are provided, listening is frequently mentioned, along with conflict management and teamwork.

'Behavior' is often used in the context of being observed or exhibited to others, making it inherently relational as well. “I always know my friends’ emotions from their **behavior** [emphasis added].” (Wong & Law, 2002) or: “Step one of this model focuses on the **behavior of another person** [emphasis added].” (Stewart, 2023). Without context, both 'skills' and 'behavior' might seem like task-focused nouns. However, since they are primarily used to describe the actions of others, we argue that they fit better within the relational primary focus. The other nouns exclusive to the other-oriented category include 'person', 'intelligence', 'team', and 'relationships'. All these nouns appear logically relevant when discussing other-oriented EI as they represent either central topics within this category or key aspects of interpersonal dynamics, e.g.: “On the whole, I’m satisfied with my close **relationships** [emphasis added].” (Petrides, 2009). In other examples, it is used to give context in a sentence: “But giving and

receiving feedback is also vital to your career and your **team's** [emphasis added] long-term success." (Stewart, 2023).

4.1.7 Cross-Comparison Frequent Nouns

When comparing the two categories, we notice 4 notable nouns that are shared by both categories: 'emotions', 'feelings', 'people', and 'situation(s)'. 'Emotions' and 'feelings' are logically relevant when discussing EI and are often used synonymously. However, in the self-oriented category, the focus is cognitive, centring on one's own emotions, whereas in the other-oriented category, it is mainly relational, concerning other people's emotions. This explains why 'people' and 'self' are frequent nouns in these categories. Although 'people' is a frequent noun in both categories, it accounts for over 8% of all nouns in the other-oriented category, whereas 'emotions' make up just over 3%. This indicates that in the other-oriented category, while emotions are significant, other people are even more important. Considering the context of 'people' in both categories, we see that in the self-oriented category, it is employed more broadly to construct sentences about collective cognitive actions. "Emotionally intelligent **people** [emphasis added] can be very good at identifying how they're feeling and, as a result, express their emotions more accurately." (Garcia, 2020). In contrast, in the other-oriented category, it is used in relation to others; "If I wanted, I could easily influence **other people's emotions** [emphasis added] to achieve what I want." (Brasseur et al., 2013).

Lastly, we look at the noun 'situation(s)'. Noteworthy here is that in the self-oriented category, it is frequent in its plural form, 'situations', and in the other-oriented category it is frequent in its singular form, 'situation'. In the self-oriented category, situations are something that individuals should not allow to change their affective state; "They are able to stay calm in **stressful situations** [emphasis added] and maintain productivity without losing control." (RocheMartin, n.d.). In contrast, in the other-oriented category, it is someone else's situation that a person needs to step into or understand: "Imagine how you would feel in their **situation** [emphasis added]." (Cherry, 2024). Therefore, in the other-oriented category, it serves as another relational noun, while in the self-oriented category, it pertains to something that should not affect someone's cognitive state.

4.1.8 Comparing Categories

Examining both categories, we observe that the verbs and nouns in the self-oriented category are cognitively focused, whereas the other-oriented category exhibits a communicative and relational focus as well (see Table 16). Additionally, nouns in both categories are predominantly cognitive. This may be because emotions and their synonyms frequently appear in both categories, reflecting an inherent internal process. For verbs, we noted that 'feel' was mainly used to describe the experience of having emotions.

Table 16

Comparing Primary Focus

Kind of word	Category	Primary focus
Verbs	Self-oriented	Cognitive & Task
Nouns	Self-oriented	Cognitive
Verbs	Other-oriented	Cognitive & Communication
Nouns	Other-oriented	Relational

Moreover, in the other-oriented category, cognitive processes are often followed by actions. For instance, understanding another's emotions can lead to expressing empathy. Additionally, one might argue that understanding another's emotion is preceded by listening to someone or observing their facial expressions to gauge their feelings. In contrast, the self-oriented category focuses more on internal awareness of emotions, such as noticing and listening to one's own emotions internally. Furthermore, we observed that the notably frequent nouns predominantly appeared in grey literature. For instance, 'empathy' and 'awareness' were found only in the qualitative paper by Margheritti et al. (2023) and in various blog articles and sample reports. Similarly, 'skills' appeared exclusively in the grey literature. This highlights a difference in the lexicon used across different types of data.

Another important aspect to explore is the mention of nonverbal behaviour within the content analysis. Since we extracted words from their context for the content analysis, it is necessary to revisit the context to determine if words relate to nonverbal behaviour. In the general content analysis, we encountered the verb 'tell,' which can describe noticing others' behaviours based on nonverbal cues; "I can **tell** [emphasis added]

whether a person is angry, sad or happy even if they don't talk to me." (Brasseur et al., 2013). Additionally, in the self-oriented category, we observed the verb 'express.' While this verb may not be explicitly focused on nonverbal behaviour, expressing one's emotions often occurs nonverbally. For instance, in examples like 'They **express** [emphasis added] emotions effectively,' the nonverbal aspect is not explicitly mentioned but can still be inherently part of the expression. Lastly, we observe the verb 'see' in the other-oriented category. This verb is strongly related to nonverbal behaviour and is used similarly to 'tell,' namely to describe recognising others' emotions; for example, 'When I see how someone feels, I usually know what has happened to them' (Takšić et al., 2006). The examples of 'tell' and 'see' come from the other-oriented category, while the example of 'express' comes from the self-oriented category. Based on this, it appears that nonverbal behaviour is primarily used as a signal of emotion to others or as a conscious or subconscious action when experiencing emotion. Additionally, there is only one instance in the measurement scales where the word nonverbal is explicitly used. All other instances are only in the grey literature.

The thematic analysis will allow us to explore how nonverbal behaviour is related to EI. Additionally, this content analysis revealed a difference in the lexicon between the categories, with distinct nouns and verbs each having their own primary focus. These primary focus categories will be used as main themes for the thematic analysis, in the next chapter, to identify observable behaviours.

4.2 Thematic Analysis

To identify observable behaviours, we coded all the data deductively, deriving the codes directly from the data itself. We examined each sentence or paragraph, extracting the described behaviours or actions. We then organised these codes into the four main categories from the content analysis: Cognitive, Communication, Relational, and Task. This process resulted in 280 initial codes, which were subsequently reviewed and merged into 68 codes (see Table 17). Some codes were excluded if they appeared only once or if all instances of the code appeared only in a single source.

Table 17

Codes per Category

Groundedness	Main Category	Code
297	Cognitive	
23		accepting emotions

3		being assertive
44		control emotional expression
13		emotions influence thoughts
24		emotions/mood influence behaviour
3		explain emotions
17		feel confident in self
2		have gratitude
9		having negative mindset
13		having positive mindset
7		learn from (emotional) obstacles or mistakes
12		maintaining (positive) mood
30		manage emotions
13		manage impulse
12		motivate self
31		recognise emotions/feelings/mood
5		reflect on emotions and their influence
2		reflect on mistakes
5		suppress emotions
3		trust in self
26		understand emotions/feelings/mood
81	Communication	
3		communicating positively
6		establish boundaries
6		express emotions/feelings nonverbal
31		expressing emotions/feelings
10		pause before speaking
8		take responsibility for actions
8		voice beliefs/opinions clearly
9		voicing disagreement/dislike
270	Relational	
6		accept criticism/feedback
2		ask for feedback
5		avoid addressing issues
3		be non-judgemental
6		being an example
7		build relationships
9		build trust
3		collaborate
3		compliment others
2		connect with others
19		empathise with others
4		explaining other's emotions/emotional responses
3		express kindness
9		give feedback
11		having social skills
8		influence other's behaviour
33		influence other's emotions/state
14		listen to others
4		motivate others
11		notice nonverbal messages from others
33		notice/perceive mood/emotion
11		open up to others
5		reassure others
2		reflect together
12		see from other's perspective
3		sympathise with others
7		take interest in others
19		understand emotion other
4		understand impact on others
6		understand nonverbal messages from others

3		validate other's emotions
3		voice appreciation
46	Task	
3		adapt behaviour to circumstances
6		consider your decisions and their consequences
10		cope with change
11		handle conflict
5		handle situations
7		problem solving
4		use creativity

Subsequently, the 68 codes were reviewed again to determine how these could be observed, either verbally or nonverbal. During this process, we found that some codes represented categories rather than specific behaviours. Additionally, we saw that the categories based on the primary focus were too broad and did not divide the codes equally. The cognitive and relational categories contained more codes than the communication and task categories. Moreover, to convert some of the codes into observable behaviours caused a shift from the cognitive category to the relational category. For instance, 'explain emotion' initially belonged to the cognitive category. However, to make it an observable behaviour, it would need to be verbally expressed, which typically occurs in interactions with others. This prompted a reclassification of all the codes based on the following categories (see Appendix B): (1) Emotional Expression (2) Understanding Emotions (3) Using Emotions (4) Managing Emotions (5) Understanding Others (6) Social Behaviour (7) Influencing Others (8) Learning & Adapting Behaviour (see Appendix B). Among these, two codes stand out: ‘being an example’ and ‘control emotional expression.’ The former is unique because it cannot be categorised. ‘Being an example’ was derived from sentences like “Others admire me for being relaxed” (Petrides, 2009), and its observable behaviour would encompass any action demonstrating emotionally intelligent behaviour. Consequently, it was decided to remove this code. The latter code straddles two categories: Emotional Expression and Managing Emotion. Initially, it was placed under Managing Emotion, as controlling behaviour logically aligns with emotion management. However, when translating this code into observable behaviour, the suggested actions, such as calm emotional expressions, fit better under Emotional Expression.

As a result, we have, where possible, suggestions for verbal or nonverbal behaviour based on the different codes (see Appendix C). These suggested behaviours were made based on the knowledge and interpretation of the coder. Of all the codes, 19 codes do

not have suggested behaviours due to various reasons (displayed in Table 18). ’Building trust' and 'handling conflict' are examples of codes where suggesting observable behaviours was challenging. These concepts are broader constructs within team effectiveness literature, making it difficult to pinpoint a single behaviour that represents them. ‘Handling situations’ and ‘expressing kindness’ are similarly not specific enough for a single behaviour to describe the entire code, especially because the data was not explicit in describing the codes in their context. Additionally, some codes we identified, such as 'giving compliments,' can contribute to the expression of kindness but do not encompass the full range of behaviours associated with expressing kindness. 'Emotions influence thoughts' and 'emotions/mood influence behaviour' are also challenging to pinpoint with specific behaviours. Verbalising the influence of emotions on thoughts requires an acknowledgement, such as 'I was sad, so I didn't believe in the project,' where the admission also pertains to the exhibited behaviour. Another option would be to examine the nonverbal behaviours that suggest thoughts being influenced by emotions. For instance, if the tone of voice or body language changes significantly when expressing opinions or beliefs, it might indicate the influence of emotions on their thoughts. However, this also inadvertently demonstrates that someone’s behaviour has been affected. Thus, it might be more accurate to observe how emotions influence someone's behaviour rather than just their thoughts, as the verbalisation might include both aspects.

Table 18

Codes without Suggested Behaviour

Code	Reason
being assertive	Data is inexplicit on specific assertive behaviour.
build relationships	Data is inexplicit on specific relationship building behaviour. Became the category Social Behaviour.
build trust	Data is inexplicit on specific how trust can be built. Might need specific behaviours for trust building in teams.
communicating positively	Is the behaviour of having a positive mindset.
connect with others	Data is inexplicit on specific connection behaviours. Could be a combination of other codes, for instance showing interest in others.
emotions influence thoughts/ emotions/mood influence behaviour	The interaction between these two codes is complex. If the impact of emotions on thoughts is noticeable, it may indicate that behaviour has already influenced them. When someone's tone changes due to emotions affecting their thoughts, their nonverbal behaviour also changes, which is what we can observe.

express kindness	Data is inexplicit on how kindness is expressed. Could be a combination of other codes, for instance giving compliments.
handle situations/handle conflict	Data is inexplicit on how to handle situations and conflicts. Conflict is a bigger construct in team effectiveness so might not be pinpointed to one action.
having social skills	Data is inexplicit on what social skills entail. Became the category Social Behaviour.
influence other's behaviour	Became the category Influencing Others.
influence other's emotions/state	Became the category Influencing Other's.
manage emotions	Became the category Managing Emotions.
notice nonverbal messages from others	Acknowledging nonverbal messages verbally may already indicate an understanding of them, which constitutes another code.
open up to others	Might be just emotional expression, which constitutes another code.
understand emotion other	Became the category and the expression might constitute of the codes of sympathy and empathy.
understand emotions/feelings/mood	Became the category Understanding Emotions.
use creativity	Data is inexplicit on how creativity can be recognised.

Besides these 19 codes, other interesting findings emerged during the thematic analysis. First, it was notable that the majority of codes point to behaviours that can be observed verbally. Only about five behaviours involve nonverbal messages, such as 'express emotions/feelings nonverbally'. Additionally, there are currently only about 18 suggested nonverbal behaviours, as the data did not specifically highlight many explicit nonverbal behaviours. Interestingly, when discussing the verbal or nonverbal expression of emotion, the words 'calm' and 'rational' are often used to describe the manner in which such expressions should or could be conveyed. Our dataset seems to point to the calm and rational expression of emotions as the emotionally intelligent way of expressing one's emotions. Additionally, 'pause before speaking' is another interesting code that could indicate specific nonverbal behaviour. A pause, representing the absence of verbal behaviour or silent behaviour, suggests that the person has listened or thought through their response. More specific examples would be necessary to further determine nonverbal behaviour in relation to EI.

Next, we observed that some codes originating more so from the trait EI side are harder to translate into observable behaviours. During the review of the 280 codes, we observed that codes rising from trait EI were only from one specific source, which meant they were rejected. Additionally, some codes were difficult to pinpoint with a single behaviour, for instance 'being assertive' which is a code that arose from a trait

EI measure and grey literature sources. However, perhaps the behaviours of certain personality traits could lead to more observable actions related to EI. For instance, codes like 'voice beliefs/opinions clearly' could represent assertive behaviour.

Lastly, we observed that suggesting specific observable behaviours was easier when considering the context of a team meeting, as this is the intended use for the EI codebook. Viewing behaviours within the framework of team interactions provided clearer examples and made it simpler to identify relevant actions. This also explains the explicit examples of observable behaviours focused on what could be said in a work environment within a team setting.
Further discussion and limitations to these suggestions and the rest of the results will be discussed in the following sections.

5. DISCUSSION

This research aimed to answer the question: "***How can Emotional Intelligence be measured through observable behaviours?***" with the sub-research question: ***"What (non) verbal behaviours can be associated with EI?***" We attempted to answer these questions using a content analysis and a thematic analysis based on a variety of white and grey literature. In this section, we discuss the theoretical and practical implications of this research. Based on our finding's propositions are offered, which suggest direction for future research. Lastly, we discuss literature-based suggestions for codes that lack suggested behaviour derived from the data.

5.1 Theoretical Implications

This study aimed to enhance the understanding of conceptualisations and operationalisations of EI. First, this study sought to examine existing literature and operationalisations of EI to understand the behaviours underlying its dimensions and items. Although the four-branch model is well established in the literature (Karani & Desai, 2024), it proved challenging to determine the specific behaviours associated with each dimension. During our secondary data collection, we encountered challenges in locating and accessing the various measurement scales developed over the years. Furthermore, our content analysis revealed a lack of disclosure on how items are assigned to the dimensions of the four-branch model within the measurement scales we identified. The content analysis then also revealed the lexicon to be fairly similar, providing no new insights into the dimensions. In EI literature,

quantitative measures of EI have been criticised for their lack of clarity regarding what is being measured with the items (Joseph & Newman, 2010), and this lack of available resources and information makes it hard to determine how these dimensions are built up. Additionally, we found that the lexicon used in the existing EI literature is abstract in nature. This was evident in the primary focus categories derived through the content analysis, which were subsequently found to be too broad and abstract to fully capture the behaviours within the codes. Furthermore, even after examining the codes generated from the thematic analysis, there were instances where codes could not be attributed to a single behaviour, or where codes were so broad that they evolved into categories themselves. The restricted disclosure of items per dimension, coupled with the abstract nature of the lexicon and the challenge of identifying specific behaviours, could indicate a broader issue: a lack of understanding of the underlying compositions of these dimensions.

Moreover, within the four-branch split, we found that each measurement scale had different interpretations of the model. Over the years, Mayer and Salovey published several papers to update or suggest changes to their original model and criticisms arose on one of the subdimensions of emotion facilitation (Mayer et al, 2016; Joseph & Newman, 2010). These changes might contribute to the different interpretations of researchers. This further contributes to the unanswered questions around the conceptualisation of EI as well as the debate on how to properly assess EI (O'Connor et al., 2019). Due to the variations in interpretations and the lack of disclosure on the items per dimension, this research sought to move beyond the four-branch model by categorising data based on self-oriented EI and other-oriented EI. The results show that the four-branch model still emerged, particularly in categories such as Understanding Emotions and Managing Emotions. However, our data also revealed additional categories based on other EI models. For instance, Social behaviour which similar to 'Social Skills' in the five domains of Brewer and Cadman (2000). Another example is 'Adaptability' from Petrides (2009), which is part of our Learning and Adapting category. Our findings suggest that it could be beneficial to avoid the constraints of the dimensions of the four-branch model. Additionally, for developing an observational operationalisation, it might be necessary to explore a new, more comprehensive conceptual framework. Based on the results of our study, we suggest considering the dichotomy between self-oriented EI and other-oriented EI, akin to

Gardner's concepts of intrapersonal and interpersonal intelligence (1983). We propose the use of these meta-categories to move away from abstract discussions of EI and to encourage the emergence of subcategories from diverse conceptualisations of EI, providing a conceptualisation that can be more easily observed.

Proposition 1: Use the dichotomy of self-oriented EI and other-oriented EI instead of the four-branch model to conceptualise EI.

When considering this dichotomy as a conceptualisation, we do observe some drawbacks. While most of the categories identified in our data can be divided, Learning & Adapting is a category that exhibits behaviour that is not explicitly directed towards the self or others. For instance, the code ‘problem solving’ refers to the suggestion of solutions to problems or difficult situations, and thus is neither directed inwards nor specifically towards others. Another drawback is that the dichotomy is extensive, encompassing a wide range of behaviours, highlighting the necessity for specific sub-categories, such as the eight we suggest based on our findings.

Other researchers have previously proposed distinguishing EI along these lines, even questioning the equal importance of both self-oriented and other-oriented EI for prediction criteria (Fiori & Vesely-Maillefer, 2018; Wang et al., 2022). Our findings reveal that self-oriented EI tends to be predominantly inner-oriented and cognitive in nature, making it not less relevant but more challenging to observe. For example, when discussing frequent nouns, most were cognitively oriented, with action-oriented nouns appearing primarily in grey literature sources. Our study does not suggest that the self-oriented category is less relevant, as we have identified behaviours that enable the observation of these cognitive processes. For example, the code ‘motivate self’ may appear to be a cognitive process, yet it can be observed through verbal expressions such as "I motivated myself." Additionally, our results showed that, for instance, to observe the perception of emotion, individuals may need to express acknowledgement of another's emotional state, such as asking, "Do you perhaps feel sad?" This expression implies not only recognition of the other person's emotion but also a certain level of understanding of emotions. This directs us towards the cascading model of EI, which posits a sequential progression from emotion perception to emotion understanding (Joseph & Newman, 2010). The observational measure might have to rely on this sequential assumption the model makes. For example, the

code ‘explaining others' emotions/emotional responses’ is classified under Understanding Others. However, explaining someone’s emotions also requires perceiving them and understanding them well enough to inquire about them. However, this needs to be confirmed through further research into the cascading model.

Secondly, this study aimed to enrich the existing EI literature by refining EI measurement, particularly emphasising nonverbal behaviours. Through deep textual exploration of EI operationalisations, this study has laid the groundwork for an observational EI measure, without the limitations associated with self-report biases in survey-based assessments (Dasborough et al., 2022). This includes providing a list of suggested codes and corresponding observable behaviours for both verbal and nonverbal expressions. As noted by Kozlowski (2015), establishing a coding scheme presents challenges, and our findings shed some light on these challenges. For instance, in addition to the scarcity of available quantitative measures, there was a noticeable absence of qualitative studies discussing the measurement of EI in depth. We identified five papers that touched on qualitative EI measurement to some extent, but three were excluded due to their journals' impact factors falling below 1.5. While we previously addressed criticisms of quantitative EI measures, we find that both quantitative and qualitative literature on EI tend to be abstract. The literature presents various definitions and survey items based on conceptualised dimensions, yet it lacks direct connections from these dimensions to the items, a gap seemingly unexplored even in qualitative studies. Qualitative research has the capability to provide a deeper and more comprehensive understanding of EI from a theoretical standpoint, which could prove particularly valuable for addressing various questions about the EI construct (Saunders et al., 1996). This is notable since the construct of EI has existed since the early 1990s but is yet to be thoroughly explored qualitatively. In contrast, when we examine similar constructs such as psychological safety (PS), we find research delving into PS through behaviour. For instance, Van Dyne's work on silence behaviour (2003) discusses six behaviours rooted in different behavioural tendencies, specifically passiveness and proactiveness, and employee motivations. O'Donovan et al.'s (2020) study was able to combine behaviours from various PS-related research, including Van Dyne's silence behaviours, to develop their naked-eye codebook for PS. Comparatively, in the realm of EI, the literature seems to halt at determining

passivity or proactivity, or, for example, perceiving emotions, without delving into the specific behaviours that may ensue. This further highlights the challenge of identifying specific behaviours within the current literature on EI. Combining this with the abstract lexicon used in the operationalisations of the four-branch model's dimensions leads us to the next proposition.

Proposition 2: The current literature shows a lack of understanding of the underlying compositions of EI dimensions.

Furthermore, this challenge of identifying specific behaviours is particularly apparent regarding nonverbal behaviours. Several researchers have emphasised the significance of nonverbal behaviour (Van Knippenberg & Van Kleef, 2016; Jacob et al., 2013), and our study sought to pinpoint specific observable nonverbal behaviours related to EI. However, our data revealed minimal discussion of nonverbal behaviours overall, and even when mentioned, there was little distinction made between facial expressions, body posture, or vocal cues. Recurrent mentions of a calm tone or rational expression of emotions were considered 'specific' nonverbal behaviours, but overall, EI literature falls short of discussing how to observe nonverbal behaviour. Studies such as Hall et al. (2019), which explore variations in pitch and speech rate as indicators of different affective states, must be further investigated and examined to propose a comprehensive list of nonverbal behaviours.

Proposition 3: Nonverbal behaviours (including facial expressions, vocal cues, body language, and gestures) are important to observe EI.

The importance of nonverbal cues in relation to EI has been acknowledged in research, but it has not been thoroughly explored. For instance, Bonaccio et al. (2016) highlight that nonverbal behaviours present a critical empirical limitation to self-report measures, as self-reports differ from the actual display of nonverbal behaviour. An observational measure of EI could more objectively measure someone’s ability to for instance decode others’ emotions (Bonaccio et al., 2016). Even in the literature on leadership and affect, nonverbal communication is recognised as playing a vital role. For instance through emotional contagion, which relies on the mimicry of nonverbal affective behaviour (Van Knippenberg & Van Kleef, 2016). Mimicry also appears in relation to connection behaviour in the literature, and we identified 'connecting to others' as a code linked to EI (see Table 19) (Carney, 2021). This same paper identifies several very specific nonverbal behaviours that are relevant to managers’

effectiveness, of which a few are related to codes we have found in our data (Carney, 2021). Identifying such explicit behaviours is exactly what is missing in EI literature, and therefore, further research is needed to bridge this gap.

This need to find relevant literature, outside of EI literature, is also the case for the behaviours in Table 18. Although we suggested observable behaviours for most of the codes, the codes in Table 18 were hard to translate into specific actions. Some were broader constructs, while others were described abstractly in the data. Therefore, it may be useful to refer to the literature to identify relevant behaviours. In Table 19 we display codes with suggested behaviours found in the literature. For example, we have the code 'handle conflict', for which we turn to conflict management strategies (CMS). The literature on interpersonal conflict focuses on two dimensions, namely assertiveness and cooperativeness (Smith et al., 2000). Interestingly, assertiveness is a code we also found in our data and cooperativeness can be related to collaborating which is also another code (Smith et al., 2000). From these two dimensions, five strategies follow which we used as the base for the suggested behaviours (Smith et al., 2000). Smith et al. (2000) also found that humour is related to conflict management strategies, to cope or celebrate, or even to express hostility. Moreover, humour and other behaviours that promote familiarity also appear as codes for 'building relationships'(Aquino et al., 2022). Another example is 'being assertive' which can be defined as the honest expression of one's needs, wants, feelings, and opinions without denying the rights of others (Thangal et al., 2023). Assertiveness seems related to for instance confidence, self-esteem, and social skills (Marinkovic et al., 2019; Thangal et al., 2023). Firm and rational are mentioned which point to more nonverbal behaviour. Most of these behaviours are already in our list of suggested behaviours (see Appendix C), thus further investigation is necessary into unique assertiveness behaviour. These are just two examples of how literature can be used to identify behaviours for our codes.

We have sought to interpret both the explicit and implicit actions described in the data to identify observable behaviours. Although this study is exploratory and merely suggests potential observable behaviours, it may provide a foundation for such a measure and direction for future research.

Table 19

Literature Suggested Behaviours

Code	Literature	Suggested Codes	Verbal Behaviour	Nonverbal Behaviour
Handle conflict	Conflict management strategies (Smith et al., 2000)	Compromising	"Let's find a middle ground"	
	Humour (Smith et al., 2000)	Avoiding	"Let's not talk about it"	
		Withdrawal		Disengagement
		Smoothing	"Let's see where we do agree"	
		Accommodating		Nodding, open body posture, soft tone of voice
		Problem solving	"How can we solve this?"	
		Collaborating	Already another code: collaborate	
		Forcing	"No, I don't agree and I am right" or "I don't need to consider your point of view."	Closed body language
		Using humour (to release tension)	"At least we can laugh about it now.."	Laughter
being assertive	Assertiveness behaviour (Marinkovic et al., 2019; Thangal et al., 2023)	Confidence	Already another code: feeling confident in self	
		Expressing oneself	Already another code: voice beliefs/opinions clearly	
		Expressing feelings	Already another code: expressing emotions	Firm tone
build relationships	Virtual team building (Aquino et al., 2022)	Talking about personal matters	"On the weekend I went out with my family."	Rational tone
		Communicating positively		
		Using humour (to set a light tone)	"That was funny, haha."	Smiling Light tone

				Higher pitch
		Reflecting	Already another code: reflect together, reflect on mistakes, reflect on emotions	Laughter
		Gratitude	Already another code: have gratitude	
connect with others	Interpersonal connection (Laing, 2023)	Sympathy	Already another code: sympathise with others	
	Nonverbal behaviour for managers (Carney, 2021)	Sharing psychological states	Already another code: empathise with others	
		Open up	See code open up to others below.	
		Understanding each other	Is a category. Already another code: understand nonverbal messages from others.	
		Mimicry		(Un)conscious imitation of another person's nonverbal behaviours
Build trust	Nonverbal behaviours for managers (Carney, 2021)	Listen to others	Already another code: listen to others	open body posture
		Allow for conversational turn-taking	"Maybe we first allow her to speak, and then you can follow!"	Open hand signalling someone's turn
express kindness	Kindness in healthcare (Fryburg, 2023)	Offer others help	"I could help you with that task."	
	Kindness among colleagues (Gibb & Rahman, 2019)	Initiate collaboration	Already another code: collaboration	
		Reassuring emotions	Already another code: reassure others or validate other's emotions	
		Empathy	Already another code: empathise with others	
		Sympathy	Already another code: sympathise with others	
open up to others	Interpersonal connection (Laing, 2023)	being receptive to others' emotional expressions		Engaged body language
use creativity	Team Creativity Scale (Liu, 2020)	Sharing original/new ideas	"I have a new idea!"	
		Suggest new methods to resolve questions	"What if we try it in an entirely different way?"	
		Share knowledge and experience	"In my experience…"	

5.2 Practical Implications

Together with theoretical implications, this study also makes some practical implications for managers as well as team members within organisations. Firstly, this study contributes to the broadening of awareness of EI within teams and organisations. Secondly, this study provides concrete examples of behaviours that could be potentially trained in an organisation's professional development programs.

Although EI has already received increased interest among managers (Farh et al., 2012), by discerning potential observable behaviours, it provides concrete examples that can be more easily used to explain or discuss EI in for instance team environments. Through closely examining both verbal and nonverbal cues, managers have the potential to foster a more emotionally intelligent work environment. In lieu of the switch to a "feeling economy" where communication, collaboration and maintaining interpersonal relationships are of the essence (Huang et al., 2019), fostering such an environment is crucial for team effectiveness. Additionally, our behavioural approach can make both managers and team members more aware of how both the verbal and nonverbal communication they emit. However, they can explore how these signals affect their interpersonal communication. Especially jobs that involve emotional demands (A'yuninnisa et al., 2024a), can benefit from actively engaging in understanding both verbal and nonverbal cues, which our research has been able to provide more explicit examples of.

This study's behavioural approach to EI can contribute to the enrichment of EI development programs, rendering them more targeted and precise in their approach. Mattingly and Kraiger (2019) investigated whether EI can be trained and confirmed that individuals can score better on EI measures after training. Additionally, they called for research that investigates how EI can be trained (Mattingly & Kraiger, 2019), which is what our study contributes to. When it comes to training EI, the focus is on skills and competencies that can be trained, which leads to a more ability approach, which is also what our behavioural approach leans towards. However, our behavioural approach tries to offer a more comprehensive view of EI. In this study, we have identified both

cognitive behaviours and action-oriented behaviours that can assist individuals in how they think about emotions and their emotional intelligence, but also how to act on it, providing insights into both how they perceive emotions and how they respond to them. Research suggests that EI training should be based on active practice and personal feedback (Mattingly & Kraiger, 2019). Additionally, research has called for research on enhancing employees' EI by training their nonverbal behaviour (Bonaccio et al., 2016). Our behavioural approach would allow for this and allow trainers to identify the exhibited EI behaviours for this personal feedback. Additionally, it was suggested that it helps trainees when they can discuss the meaning of the construct of EI and how it applies to them. For this, our behavioural approach can for instance be combined with Kolb's Experiential Learning Theory (ELT) (1984), which works on a four-stage learning cycle that includes: concrete experience, reflective observation, abstract conceptualisation, and active experimentation (Akella, 2010). Our behavioural approach would allow for a better determination of concrete experiences both focused on intrapersonal and interpersonal experiences, which would allow trainees in EI to reflect on how to handle situations and apply real-world experiences.

6. LIMITATIONS & FUTURE RESEARCH

Despite our efforts to conduct comprehensive research, this study and its findings are subject to certain limitations. Firstly, there was a limited availability of data sources, both for measurement scales and qualitative papers. Though we approached data collection with rigour, we did not utilise a systematic literature review approach. Instead, we opted for a flexible method to avoid limiting the scope of our searches to a single search string. However, employing a systematic approach could minimise bias and enhance the reproducibility of this study. Additionally, to access a broader range of measurement scales, it may be necessary to consider allocating monetary resources to acquire them. Moreover, the lack of qualitative research on the measurement of EI prompts us to suggest further qualitative investigations to delve into the underlying compositions of the dimensions of EI measurement methods. Given the constraints of quantitative EI studies, we propose exploring qualitative research that incorporates the perspectives of psychologists or EI practitioners and focuses on how they observe EI.

Furthermore, this study relied on a single coder, meaning all conclusions are derived solely from their analysis of the data. Qualitative research deals with concerns regarding reliability and validity, as they depend on the researcher's knowledge, context, and therefore the inherently subjective nature of interpretation (Saunders et al., 1996). Incorporating a second coder would enhance the robustness of the findings by diversifying perspectives and ensuring intercoder reliability (Saunders et al., 1996). Nevertheless, these findings can be used as suggestions and can give direction to future research. For instance, future research could look at the codes that arose from this data and relate them to the literature to strengthen the suggestions made by this study. We believe this research narrows the search terms needed to investigate the observable behaviours of EI. Especially for nonverbal behaviours, we see the need to further study how the different codes can be expressed in observable behaviours. Additionally, codes from trait EI measures and codes that include broader constructs, like trust and conflict, need further exploration for them to be properly included in a behavioural measure. The verification of the codes in literature is important, however, it would also be valuable to compare the identified categories and behaviours against real-life data. Future research can empirically test the codes and their relevance in a team environment.

Another limitation to consider is regarding the observational measures, namely the potential for discrepancies between one's intentions and one's actions. Here we can draw upon the theory of planned behaviour, which suggests that a person's behaviour is influenced by their intention to perform it (Ajzen, 1991). An individual's intention is influenced by perceived behavioural control (the perception of the level of ease of the behaviour), subjective norms (perceived social pressure on the performance of the behaviour), and attitudes towards the behaviour (how positively or negatively someone sees the behaviour) (Ajzen, 1991). For instance, when it comes to an observational measure of EI, the norms of a team environment can play a part in a person's decision to express their emotions. Here the concept of emotional labour comes into play, as it refers to how employees manage their emotions to match organisational rules on how emotions should be shown (Karim & Weisz, 2011). This differs per organisation, however, generally, organisational rules point to the suppression of negative emotions and the expression of positive ones (Karim & Weisz, 2011). Meanwhile, in EI literature we find the concept of emotional regulation, which is defined as the process by which

an individual influences their emotions (Gross, 1998). Specifically emotional regulation relates to what emotions to have, when to have them, and how to experience them (Gross, 1998). Therefore, emotional regulation could relate to the theory of planned behaviour, as an individual's negative attitude towards emotional expression, might lead to stronger emotional regulation to not exhibit such behaviour. Further exploration of these concepts and their relationship to EI could increase our understanding of the gap between our intentions and actions.

Lastly, this study did not account for the influence of national culture on behaviour. Our theoretical background acknowledges that culture can have an effect on EI, which is crucial for understanding how individuals perceive, process, and act on emotions, which in turn affects our research (Pathak & Muralidharan, 2020). Previous research has shown that the expression and reactions to emotions can vary significantly across cultures (Pathak & Muralidharan, 2020). For instance, in one culture, certain emotional expressions may be seen as rational, while in another, emotional expression itself may be viewed as contrary to rationality. In addition to culture, differences in personality traits could also influence how individuals exhibit EI. However, we rendered this outside the scope of the present study. Therefore, when developing an observational measure, it is essential to consider the cultural context and future research could focus on exploring how to account for the impact of cultural context on EI.

7. CONCLUSION

This study aimed to explore how emotional intelligence manifests through verbal and nonverbal behaviours. We conducted an in-depth textual analysis of quantitative, qualitative, and grey literature sources to identify these observable behaviours. First, we performed a content analysis. Given the limited disclosure of measures divided by the four-branch model dimensions, we categorised the data into self-oriented EI and other-oriented EI. Our observations revealed that the self-oriented category primarily focuses on cognitive aspects, while the other-oriented category emphasises communication and emotions in relation to others. Furthermore, we found that grey literature predominantly discussed skills and behaviours, whereas quantitative literature remained relatively abstract. Building on the content analysis categories, we proceeded with a thematic analysis. This involved creating codes inductively from the data and deductively applying the categories identified earlier. The thematic analysis uncovered various verbal and nonverbal behaviours. We also found that the initial categories from the content analysis were too broad, leading us to reclassify all codes into eight new categories. Furthermore, we discovered that some codes did not suggest specific behaviours, for instance, because the code encompassed broader constructs that would not be exhibited by just one action. Lastly, we noted that nonverbal behaviours are underrepresented and not detailed enough in the current literature.

Following the discussion on the implications and limitations of this research, we see considerable potential for future studies based on the behavioural measures for which we have sought to lay the foundations. EI is a highly complex construct that has been widely debated and critiqued, yet it highlights intriguing aspects of interactions and team dynamics. Though the construct has been around for over 40 years, it is far from being fully explored. Our research only suggests a new observational operationalisation and considers a more comprehensive conceptualisation. These recommendations should serve as encouragements for future investigations to further explore the realm of possibilities within EI.

8. APPENDIX

8.1 Appendix A

Table 20

Stop List

Word or Regex				
_+	do	i'm	shan't	was
-+	does	i've	she	wasn't
(\d+)(((.|,)\d+)+)?	doesn't	if	she'd	we
\b(\w)\b	doing	in	she'll	we'd
✓	don't	into	she's	we'll
a	down	is	should	we're
about	during	isn't	shouldn't	we've
above	each	it	so	were
after	few	it's	some	weren't
again	for	its	such	what
against	from	itself	than	what's
all	further	let's	that	when's
am	had	me	that's	where
an	hadn't	more	the	where's
and	has	most	their	which
any	hasn't	mustn't	theirs	while
are	have	my	them	who
aren't	haven't	myself	themselves	who's
as	having	no	then	whom
at	he	nor	there	why
be	he'd	not	there's	why's
because	he'll	of	these	with
been	he's	off	they	won't
before	her	on	they'd	would
being	here	once	they'll	wouldn't
below	here's	only	they're	you
between	hers	or	they've	you'd
both	herself	other	this	you'll
but	him	ought	those	you're
by	himself	our	through	you've
can't	his	ours	to	your
cannot	how	ourselves	too	yours
could	how's	out	under	yourself
couldn't	i	over	until	yourselves
did	i'd	own	up	
didn't	i'll	same	very	

8.2 Appendix B

Table 21

Categories based on Observable Behaviours

Category	Code
Emotional Expression	express emotions/feelings nonverbal & expressing emotions/feelings
	accepting emotions
	trust in self
	voicing disagreement/dislike
	control emotional expression
Understanding Emotions	understand emotions/feelings/mood
	explain emotions
	recognise emotions/feelings/mood
	reflect on emotions and their influence
	notice/perceive mood/emotion
Using Emotions	emotions influence thoughts
	emotions/mood influence behaviour
	feel confident in self
	have gratitude
	motivate self
Managing Emotions	manage emotions
	control emotional expression
	handle situations
	maintaining (positive) mood
	manage impulse
	suppress emotions
	pause before speaking
	voice beliefs/opinions clearly
	understand impact on others
	having negative mindset
	having positive mindset
Understanding Others	understand emotion other & understand nonverbal messages from others
	explaining other's emotions/emotional responses
	listen to others
	notice nonverbal messages from others
	see from other's perspective

Social Behaviour	build relationships & having social skills
	build trust
	collaborate
	connect with others
	empathise with others
	open up to others
	reassure others
	sympathise with others
	take interest in others
	validate other's emotions
Influencing Others	influence other's behaviour & influence other's emotions/state
	being assertive
	voice appreciation
	handle conflict
	communicating positively
	avoid addressing issues
	be non-judgemental
	compliment others
	express kindness
	motivate others
Learning & Adapting Behaviour	learn from (emotional) obstacles or mistakes
	reflect on mistakes
	establish boundaries
	take responsibility for actions
	accept criticism/feedback
	ask for feedback
	give feedback
	reflect together
	adapt behaviour to circumstances
	consider your decisions and their consequences
	cope with change
	problem solving
	use creativity

8.3 Appendix C

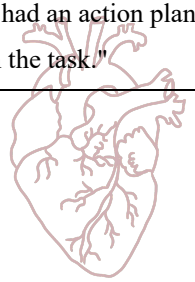
Table 22

Observable Behaviours Suggestions

Code	Behaviour	Verbal Example	Nonverbal	Nonverbal Example
accept criticism/feedback	Respond to feedback with acceptance and/or plan of action	"Thank you for the feedback, I will take it into consideration."	Active listening	Nodding
accepting emotions	Talking about acceptance of emotions	"I accept my emotions."		
adapt behaviour to circumstances	Express willingness to adapt behaviour	"I don't mind changing my workflow to match yours."		
ask for feedback	Asking others for feedback	"Do you have any feedback for me?"		
avoid addressing issues	Dismissal of topics without reason	"I don't want to talk about it."	Closed body language	Crossed arms
be non-judgemental	Telling another that they will not be judged	"Don't worry, I won't judge you."	Opposite: judgmental facial expressions	
collaborate	Express willingness to collaborate or previous collaboration	"I would love to work together on this task."		
compliment others	Praising another on their work or attitude	"You did a great job."	Positive signals	Thumbs up
consider your decisions and their consequences	Express thoughts on consequences of decisions	"I think that this decision might make your work harder; how can we fix that?"		

control emotional expression	Calm/Rational expression as high EI, Outbursts as low EI			
cope with change	Acknowledge change and understanding of the change and perhaps a plan to cope	"I understand this change might alter our workflow; perhaps we should consider using different software."		
emotions influence thoughts			Tone of voice or body language when discussing opinions/beliefs	
empathise with others	Express empathy	"I understand how you are feeling; I feel with you."	Gestures of comfort, caring expression, emotional facial expressions with the same emotions	Hand on the middle of chest
establish boundaries	Expressing boundaries including the reason	"I cannot add that to my list of responsibilities, as I already have no time to do my core responsibilities."		
explain emotions	Explaining emotions in I-form	"I felt sad because of what happened with my family."		
explaining other's emotions/emotional responses	Explain or summarise what another feels, ending on a verification	"I think you felt misunderstood; is that correct?"		

express emotions/feelings nonverbal			Showing emotions	
expressing emotions/feelings	Expressing emotions in words	"I feel sad right now."		
feel confident in self	Talking about confidence in oneself	"I feel confident in myself." / "I feel confident that I can do it."	Body posture, tone of voice	
give feedback	Provide constructive feedback (Reverse: destructive feedback)	"Perhaps it will help you if you plan ahead next time; I know that helps me." / "You did that wrong."		
handle conflict	Acknowledge each side and trying to de-escalate the situation		Calm tone	
have gratitude	Expressing gratitude to others	"Thank you for helping me."		
having negative mindset	Talking about disbelief	"I do not believe that things will work out." / "Everything is impossible."		
having positive mindset	Talking about belief using positive words	"I believe that things will work out." / "Good, great, etc."		
learn from (emotional) obstacles or mistakes	Explaining what was learned in I-form	"I learned from this bad experience that it is better to plan ahead next time."		
listen to others			Active listening	Nodding
maintaining (positive) mood	Not being fased by negative emotions in the meeting	"I want to try to keep a positive mood."	Keep a positive body language	Smile as a facial expression
manage impulse	Talking about having plans before acting	"I had an action plan before I started on the task."	Let others finish speaking	



motivate others	Offer words of encouragement and express belief in others	"I believe you can do it."		
motivate self	Talking about motivating oneself	"I motivated myself."		
notice/perceive mood/emotion	Asking if the other feels an emotion	"Do you perhaps feel sad?"		
pause before speaking			Pause and show a thinking expression	
problem solving	Suggest solutions to problems	"Perhaps we can consider changing the time of the meeting."		
reassure others	Express words of comfort or support, potentially helping another to feel better	"It is okay to struggle with this. Things will get better."	Reassuring gestures	Hand on arm
recognise emotions/feelings/mood	Talking about the recognition of emotion of oneself	"I recognised I had an emotional outburst."		
reflect on emotions and their influence	Talking about the influence emotions had on behaviour of oneself	"My emotional outburst impacted the team negatively."		
reflect on mistakes	Talking about a mistake and what can be learned from it	"I made a mistake by not acknowledging the client's feelings, so I will have to actively do this next time."		
reflect together	Reflect on previous situations and suggest improvements	"When I think back, I think if we had a different approach, it would have gone better. Perhaps we can try this new approach next time."		

see from other's perspective	Express understanding of another's perspective	"I understand your point of view."		
suppress emotions	Physically repressing emotions.		Signalling suppression by constrained body language	Clenched fists, hand in front of mouth to keep from speaking
sympathise with others	Express understanding of emotion or situation	"I understand how you are feeling; that must be so difficult."		
take interest in others	Ask questions about another's state of mind or opinions	"How are you doing?"	Active listening	
take responsibility for actions	Expressing apology or fault	"I am sorry for my part in the whole situation."		
trust in self	Expressing trust in oneself	"I trust myself to do the task."		
understand impact on others	Express understanding of the consequences of actions	"I understand my anger outburst might have made others uncomfortable."		
understand nonverbal messages from others	Addressing nonverbal behaviour that was noticed	"I saw you frown; do you disagree?"		
validate other's emotions	Acknowledge other's emotions	"It's okay to feel upset about this."		
voice appreciation	Voice appreciation of the action of others	"Thank you for saying that."		
voice beliefs/opinions clearly	Opposite can be verbally observed: using words that point to hesitance	"I uh think that uh I don't agree probably."	Clear articulation, projecting, eye contact	

voicing disagreement/dislike	Disagreeing constructively / Destructively	"I disagree because…" / "I think that is absolutely stupid."	Calm expression, aggressive gestures

9. REFERENCES

Adams, R., Smart, P., & Huff, A. S. (2016). Shades of Grey: Guidelines for Working with the Grey Literature in Systematic Reviews for Management and Organizational Studies. *International Journal of Management Reviews*, *19*(4), 432–454. https://doi.org/10.1111/ijmr.12102

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-t

Akella, D. (2010). Learning together: Kolb's experiential theory and its application. *Journal of Management & Organization*, *16*(1), 100–112. https://doi.org/10.1017/s1833367200002297

Aquino, J. F., Riss, R. R., Multerer, S. M., Mogilner, L. N., & Turner, T. L. (2022). A step-by-step guide for mentors to facilitate team building and communication in virtual teams. Medical Education Online, 27(1). https://doi.org/10.1080/10872981.2022.2094529

Ashkanasy, N. M., & Daus, C. S. (2005). Rumors of the death of emotional intelligence in organizational behavior are vastly exaggerated. *Journal of Organizational Behavior*, *26*(4), 441–452. https://doi.org/10.1002/job.320

A'yuninnisa, R. N., Carminati, L., & Wilderom, C. P. (2024a). Job flourishing research: A systematic literature review. *Current Psychology*, *43*(5), 4482-4504. https://doi.org/10.1007/s12144-023-04618-w

A'yuninnisa, R. N., Carminati, L., & Wilderom, C. P. (2024b). Promoting employee flourishing and performance: the roles of perceived leader emotional intelligence, positive team emotional climate, and employee emotional intelligence. *Frontiers in Organizational Psychology*, *2*. https://doi.org/10.3389/forgp.2024.1283067

Bartlett, M. Y., Condon, P., Cruz, J., Baumann, J., & Desteno, D. (2012). Gratitude: Prompting behaviours that build relationships. Cognition and Emotion, 26(1), 2–13. https://doi.org/10.1080/02699931.2011.561297

Bekmanova, G., Yergesh, B., Sharipbay, A., & Mukanova, A. (2022). Emotional speech recognition Method based on word transcription. *Sensors*, *22*(5), 1937. https://doi.org/10.3390/s22051937

Bonaccio, S., O'Reilly, J., O'Sullivan, S. L., & Chiocchio, F. (2016). Nonverbal behavior and communication in the workplace. Journal of Management, 42(5), 1044–1074. https://doi.org/10.1177/0149206315621146

Brackett, M. A., Rivers, S. E., Shiffman, S., Lerner, N., & Salovey, P. (2006). Self-Rated Emotional Intelligence Scale—Revised [Dataset]. In *PsycTESTS Dataset*. https://doi.org/10.1037/t01746-000

Brasseur, S., Grégoire, J., Bourdu, R., & Mikolajczak, M. (2013). The Profile of Emotional Competence (PEC): Development and Validation of a Self-Reported Measure that Fits Dimensions of Emotional Competence Theory. *PloS One*, *8*(5), e62635. https://doi.org/10.1371/journal.pone.0062635

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Brewer, & Cadman, C. (2000). Emotional intelligence: enhancing student effectiveness and patient outcomes. *Nurse Educator*, *25*(6), 264–266.

Bru-Luna, L. M., Vilar, M. M., Merino-Soto, C., & Cervera-Santiago, J. L. (2021). Emotional Intelligence Measures: A Systematic Review. *Healthcare*, *9*(12), 1696. https://doi.org/10.3390/healthcare9121696

Carmichael, C. L., & Mizrahi, M. (2023). Connecting cues: The role of nonverbal cues in perceived responsiveness. *Current Opinion in Psychology*, *53*, 101663. https://doi.org/10.1016/j.copsyc.2023.101663

Cherry, K. (2024, January 31). Emotional intelligence: how we perceive, evaluate, express, and control emotions. Verywell Mind. Retrieved May 23, 2024, from https://www.verywellmind.com/what-is-emotional-intelligence-2795423

Cowen, A., & Keltner, D. (2017). Self-report captures 27 distinct categories of emotion bridged by continuous gradients. *Proceedings of the National Academy of Sciences of the United States of America*, *114*(38). https://doi.org/10.1073/pnas.1702247114

Dasborough, M. T., Ashkanasy, N. M., Humphrey, R. H., Harms, P. D., Credé, M., & Wood, D. (2022). Does leadership still not need emotional intelligence? Continuing "The Great EI Debate." *The Leadership Quarterly*, *33*(6), 101539. https://doi.org/10.1016/j.leaqua.2021.101539

Dasgupta, P. B. (2017). Detection and Analysis of Human Emotions through Voice and Speech Pattern Processing. *International Journal of Computer Trends and Technology*, *52*(1), 1–3. https://doi.org/10.14445/22312803/ijctt-v52p101

Davaei, M., & Gunkel, M. (2023). The role of intelligences in teams: a systematic literature review. *Review of Managerial Science (Print)*, *18*(1), 259–297. https://doi.org/10.1007/s11846-023-00672-7

Dennison, J. (2023). Emotions: functions and significance for attitudes, behaviour, and communication. *Migration Studies (Print)*, *12*(1), 1–20. https://doi.org/10.1093/migration/mnad018

Farh, C. I. C., Seo, M. G., & Tesluk, P. E. (2012). Emotional intelligence, teamwork effectiveness, and job performance: The moderating role of job context. *Journal of Applied Psychology*, *97*(4), 890–900. https://doi.org/10.1037/a0027377

Farley, S. D., Akin, K., & Hedgecoth, N. (2021). Exploring the meanings of the "Heartfelt" gesture: a nonverbal signal of heartfelt emotion and empathy. *Journal of Nonverbal Behavior*, *45*(4), 567–585. https://doi.org/10.1007/s10919-021-00371-5

Fiori, M., & Vesely-Maillefer, A. K. (2018). Emotional intelligence as an ability: theory, challenges, and new directions. In *Emotional intelligence in education* (pp. 23–48). Springer. https://doi.org/10.1007/978-3-319-90633-1

Fryburg, D. A. (2023). Kindness Isn't Just about Being Nice: The Value Proposition of Kindness as Viewed through the Lens of Incivility in the Healthcare Workplace. *Behavioral Sciences*, *13*(6), 457. https://doi.org/10.3390/bs13060457

Furnham, A., Treglown, L., & Topic, D. (2021). Trait emotional intelligence and job performance evaluations: evidence from self, manager, team and peer ratings. *International Journal of Organizational Analysis*, *29*(5), 1156–1171. https://doi.org/10.1108/ijoa-07-2020-2316

Garcia, M. (2020, July 23). 8 Behaviors of Emotionally Intelligent People. *Criteria*. Retrieved May 15, 2024, from https://www.criteriacorp.com/blog/8-behaviors-of-emotionally-intelligent-people

Gibb, S., & Rahman, S. (2019). Kindness among colleagues; identifying and exploring the gaps in employment contexts. *International Journal of Organizational Analysis*, *27*(3), 582–595. https://doi.org/10.1108/ijoa-02-2018-1357

Grijalbo, C., Martí-nez-Gallego, R., & Luján, J. F. G. (2021). Verbal coping of coaches in competition: Differences depending on emotional intelligence and self-determined motivation. *International Journal of Sports Science & Coaching*, *17*(2), 264–273. https://doi.org/10.1177/17479541211061331

Gross, J. J. (1998). The Emerging Field of Emotion Regulation: An Integrative Review. *Review of General Psychology*, *2*(3), 271–299. https://doi.org/10.1037/1089-2680.2.3.271

Hall, J. A., Horgan, T. G., & Murphy, N. A. (2019). Nonverbal communication. *Annual Review of Psychology*, *70*(1), 271–294. https://doi.org/10.1146/annurev-psych-010418-103145

Harvard DCE. (2019). How to Improve Your Emotional Intelligence. *Professional & Executive Development*. Retrieved May 15, 2024, from https://professional.dce.harvard.edu/blog/how-to-improve-your-emotional-intelligence/

Huang, M., Rust, R. T., & Maksimovic, V. (2019). The feeling economy: Managing in the next generation of artificial intelligence (AI). *California Management Review*, *61*(4), 43–65. https://doi.org/10.1177/0008125619863436

Jacob, H., Kreifelts, B., Brück, C., Nizielski, S., Schütz, A., & Wildgruber, D. (2013). Nonverbal signals speak up: Association between perceptual nonverbal dominance and

emotional intelligence. *Cognition and Emotion*, *27*(5), 783–799. https://doi.org/10.1080/02699931.2012.739999

Jordan, P. J., & Troth, A. C. (2002). Emotional intelligence and Conflict Resolution: Implications for Human resource development. *Advances in Developing Human Resources*, *4*(1), 62–79. https://doi.org/10.1177/1523422302004001005

Joseph, D. L., Jin, J., Newman, D. A., & O'Boyle, E. H. (2015). Why does self-reported emotional intelligence predict job performance? A meta-analytic investigation of mixed EI. *Journal of Applied Psychology*, *100*(2), 298–342. https://doi.org/10.1037/a0037681

Joseph, D. L., & Newman, D. A. (2010). Emotional intelligence: An integrative meta-analysis and cascading model. *Journal of Applied Psychology*, *95*(1), 54–78. https://doi.org/10.1037/a0017286

Karani, R., & Desai, S. (2024). May I know my EQ? Factors to automate EQ prediction using technology. *Personality and Individual Differences*, *218*, 112469. https://doi.org/10.1016/j.paid.2023.112469

Karim, J., & Weisz, R. (2011). Emotional Intelligence as a moderator of Affectivity/Emotional Labor and Emotional Labor/Psychological Distress relationships. *Psychological Studies/Psychological Studies*, *56*(4), 348–359. https://doi.org/10.1007/s12646-011-0107-9

Kozlowski, S. W. J. (2015). Advancing research on team process dynamics. *Organizational Psychology Review (Print)*, *5*(4), 270–299. https://doi.org/10.1177/2041386614533586

Laing, J. (2023). Interpersonal connection. *Mind & Language*, *39*(2), 162–178. https://doi.org/10.1111/mila.12480

LaPalme, M. L., Barsade, S. G., Brackett, M. A., & Floman, J. L. (2023). The Meso-Expression Test (MET): a novel assessment of emotion perception. *Journal of Intelligence*, *11*(7), 145. https://doi.org/10.3390/jintelligence11070145

Lin, S., & Hsu, W. (2023). A Systematic Review of Facial Micro-Expression Recognition. *IEEE Xplore*. https://doi.org/10.1109/icast57874.2023.10359298

Liu, H. (2020). Inter-professional nursing education and the roles of swift trust, interaction behaviors, and creativity: A cross-sectional questionnaire survey. *Nurse Education Today*, *95*, 104598. https://doi.org/10.1016/j.nedt.2020.104598

Louwen, C., Reidlinger, D. P., & Milne, N. (2023). Profiling health professionals' personality traits, behaviour styles and emotional intelligence: a systematic review. *BMC Medical Education*, *23*(1). https://doi.org/10.1186/s12909-023-04003-y

Margheritti, S., Gragnano, A., Villa, R., Invernizzi, M., Ghetti, M., & Miglioretti, M. (2023). Being an Emotional Business Leader in the Time of the COVID-19 Pandemic: The Importance of Emotions during a Crisis. Sustainability, 15(4), 3392. https://doi.org/10.3390/su15043392

Marinkovic, L., Zubanov, V., & Topler, J. P. (Eds.). (2019). Assertiveness scale as a teamwork aptitude predictor. *Annales Series Historia Et Sociologia*, *29*(3), 511–520. https://doi.org/10.19233/ASHS.2019.34

Mathieu, J. E., Gallagher, P., Domingo, M. a. A., & Klock, E. A. (2019). Embracing complexity: Reviewing the past decade of team effectiveness research. *Annual Review of Organizational Psychology and Organizational Behavior (Print)*, *6*(1), 17–46. https://doi.org/10.1146/annurev-orgpsych-012218-015106

Mathieu, J. E., Luciano, M. M., D'Innocenzo, L., Klock, E. A., & LePine, J. A. (2019). The development and construct validity of a team Processes survey measure. *Organizational Research Methods*, *23*(3), 399–431. https://doi.org/10.1177/1094428119840801

Matsumoto, D., & Hwang, H. C. (2014). Judgments of subtle facial expressions of emotion. Emotion, 14(2), 349–357. https://doi.org/10.1037/a0035237

Mattingly, V., & Kraiger, K. (2019). Can emotional intelligence be trained? A meta-analytical investigation. *Human Resource Management Review*, *29*(2), 140–155. https://doi.org/10.1016/j.hrmr.2018.03.002

Mayer, J. D., & Salovey, P. (1990). Emotional intelligence. *Imagination, Cognition and Personality*, *9*(3), 185–211. https://doi.org/10.2190/dugg-p24e-52wk-6cdg

Mayer, J. D., & Salovey, P. (1993). The intelligence of emotional intelligence. *Intelligence*, *17*(4), 433–442. https://doi.org/10.1016/0160-2896(93)90010-3

Mayer, J. E., Caruso, D. R., & Salovey, P. (2016). The ability Model of Emotional intelligence: Principles and updates. *Emotion Review*, *8*(4), 290–300. https://doi.org/10.1177/1754073916639667

Morin, A. (2020, April 7). How to Increase Your Social Intelligence. Verywellmind. Retrieved May 15, 2024, from https://www.verywellmind.com/what-is-social-intelligence-4163839

Negrescu, M., & Nicolescu, A. (Eds.). (2018). *Challenges in decoding and observing the (non)verbal communication* (Vol. 7) [International Conference Redefining Community in Intercultural Context].

O'Connor, P. J., Hill, A., Kaya, M., & Martin, B. (2019). The Measurement of Emotional Intelligence: A critical review of the literature and recommendations for researchers and practitioners. *Frontiers in Psychology*, *10*. https://doi.org/10.3389/fpsyg.2019.01116

O'Donovan, R., Van Dun, D. H., & McAuliffe, É. (2020). Measuring psychological safety in healthcare teams: developing an observational measure to complement survey methods. *BMC Medical Research Methodology (Online)*, *20*(1). https://doi.org/10.1186/s12874-020-01066-z

Oggiano, M., & Adriani, W. (2023). Misunderstandings about Non-Verbal communication. In *Springer eBooks*. https://doi.org/10.1007/978-3-031-43571-3

Orhan, A. (2024). Trait emotional intelligence questionnaire short form (teique-sf): Reliability generalization meta-analysis. *Personality and Individual Differences*, *224*, 112633. https://doi.org/10.1016/j.paid.2024.112633

Pathak, S., & Muralidharan, E. (2020). Implications of culturally implicit perspective of emotional intelligence. Cross-cultural Research, 54(5), 502–533. https://doi.org/10.1177/1069397120938690

Perry, E. (2023, November 22). How to improve emotional intelligence. *BetterUp*. Retrieved May 15, 2024, from https://www.betterup.com/blog/how-to-improve-emotional-intelligence

Petrides, K. V. (2009). Psychometric Properties of the Trait Emotional Intelligence Questionnaire (TEIQUE). In *Plenum series on human exceptionality* (pp. 85–101). https://doi.org/10.1007/978-0-387-88370-0_5

Petrides, K. V., & Furnham, A. (2001). Trait emotional intelligence: psychometric investigation with reference to established trait taxonomies. *European Journal of Personality*, *15*(6), 425–448. https://doi.org/10.1002/per.416

Petrides, K. V., & Furnham, A. (2003). Trait emotional intelligence: behavioural validation in two studies of emotion recognition and reactivity to mood induction. *European Journal of Personality*, *17*(1), 39–57. https://doi.org/10.1002/per.466

RocheMartin. (n.d.). *ECR Self Report Emotional Intelligence Assessment*. Retrieved May 15, 2024, from https://www.rochemartin.com/emotional-capital-report

Russell, J. A. (2003). Core affect and the psychological construction of emotion. *Psychological Review*, *110*(1), 145–172. https://doi.org/10.1037/0033-295x.110.1.145

Salovey, P., Mayer, J. D., Goldman, S. L., Turvey, C., & Palfai, T. P. (1995). Emotional attention, clarity, and repair: Exploring emotional intelligence using the Trait Meta-Mood Scale. In *American Psychological Association eBooks* (pp. 125–154). https://doi.org/10.1037/10182-006

Saunders, M. N. K., Lewis, P., & Thornhill, A. (1996). *Research methods for business students*.

Schutte, N. S., Malouff, J. M., Hall, L., Haggerty, D. J., Cooper, J. T., Golden, C. J., & Dornheim, L. (1998). Development and validation of a measure of emotional intelligence. *Personality and Individual Differences*, *25*(2), 167–177. https://doi.org/10.1016/s0191-8869(98)00001-4

SIGMA Assessment Systems. (2023). *MEIA-W-R Sample Report*. Retrieved May 15, 2024, from https://www.sigmaassessmentsystems.com/assessments/multidimensional-emotional-intelligence-assessment-workplace-revised/sample-report/

Smith, W. J., Harrington, K. V., & Neck, C. P. (2000). Resolving conflict with humor in a diversity context. *Journal of Managerial Psychology*, *15*(6), 606–625. https://doi.org/10.1108/02683940010346743

Staller, K. (2010). Qualitative research [E-book]. In *Encyclopedia of Research Design* (Vol. 0, pp. 1159–1163). SAGE Publications. https://doi.org/10.4135/9781412961288

Stewart, J. P. (2023, May 2). Five Behaviors to Help Develop Your Emotional Intelligence. *Stewart Leadership*. Retrieved May 15, 2024, from https://blog.stewartleadership.com/five-behaviors-to-help-develop-your-emotional-intelligence

Takšić, V., Faria, L., Santos, N. L., Räty, H., Molander, B., Holmström., S., Avsec, A., Extremera, N., Fernández-Berrocal, P., & Toyota. (2006). Cross-Cultural Validation Of Emotional Skills And Competence Questionnaire (Escq). *Psicologia*, *2*, 95–127. http://bib.irb.hr/prikazi-rad?&lang=EN31&rad=199503

Thangal, T. B. T., Sham, R., & Co, M. (2023). Assertiveness behavior and organizational climate among workers in a multinational company in Malaysia. Environment-behaviour Proceedings Journal, 8(23), 273–278. https://doi.org/10.21834/ebpj.v8i23.4473

Van Cappellen, P., Edwards, M. E., & Shiota, M. N. (2023). Shades of expansiveness: Postural expression of dominance, high-arousal positive affect, and warmth. *Emotion*, *23*(4), 973–985. https://doi.org/10.1037/emo0001146

Van Dun, D. H., & Kumar, M. (2023). Social enablers of Industry 4.0 technology adoption: transformational leadership and emotional intelligence. International Journal of Operations & Production Management, 43(13), 152–182. https://doi.org/10.1108/ijopm-06-2022-0370

Van Dyne, L., Ang, S., & Botero, I. C. (2003). Conceptualizing employee silence and employee voice as multidimensional constructs. *Journal of Management Studies*, *40*(6), 1359–1392. https://doi.org/10.1111/1467-6486.00384

Van Knippenberg, D., & Van Kleef, G. A. (2016). Leadership and Affect: moving the hearts and minds of followers. The Academy of Management Annals, 10(1), 799–840. https://doi.org/10.1080/19416520.2016.1160515

Wang, X., Cai, Y., & Tu, D. (2022). The application of item response theory in developing and validating a shortened version of the Rotterdam Emotional Intelligence Scale. *Current Psychology*, *42*(26), 22949–22964. https://doi.org/10.1007/s12144-022-03329-y

Wong, C., & Law, K. S. (2002). The effects of leader and follower emotional intelligence on performance and attitude. *Leadership Quarterly*, *13*(3), 243–274. https://doi.org/10.1016/s1048-9843(02)00099-1

Zeidner, M., Roberts, R. D., & Matthews, G. (2008). The science of emotional intelligence. *European Psychologist*, *13*(1), 64–78. https://doi.org/10.1027/1016-9040.13.1.64

Zhao, E. Y., Thatcher, S. M. B., & Jehn, K. A. (2019). Instigating, engaging in, and Managing group Conflict: A review of the literature addressing the critical role of the leader in group conflict. *The Academy of Management Annals*, *13*(1), 112–147. https://doi.org/10.5465/annals.2016.0153