

# **EMPATHY IN WRITTEN FEEDBACK TO GRADUATE STUDENTS**

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## Abstract

Empathy can play an essential role in improving formative feedback for learning in higher education. Formative feedback refers to “information provided by an agent (e.g., teacher, peer, book, parent, self, experience) regarding aspects of one's performance or understanding” (Hattie & Timperley, 2007, p. 81). It has been identified in the research of assessment as a useful tool that enhances student learning. However, a number of factors must be born in mind, like feedback quantity, quality, timing, linguistic style and empathy, as these can affect how feedback is perceived by students. A plethora of studies have investigated feedback quantity, quality, and timing. However, little attention has been given to both feedback linguistic style and empathy. This research in the Educational domain seeks to remedy particular significant omissions in formative assessment literature in two areas: 1) Linguistic style by using “register theory”, which refers to field, tenor, and mode of discourse (e.g. Halliday, McIntosh, & Strevens, 1964) in Systemic Functional Linguistics to highlight the inadequately captured relationship between language structure and language function (Halliday, 1985) in connection with formative feedback, and 2) Empathy by using the three types of empathy: “cognitive”, “affective”, and “compassionate empathy” (Ekman, 2003) to highlight the missing role of empathy in connection with formative feedback. In the current study, field expressed through ideational meanings, tenor expressed through interpersonal meanings, and mode expressed through textual meanings are examined in relation to how empathy is reflected in written feedback provided to graduate students and how that written feedback is perceived by those students. A sample of seven students from a Faculty of Education is examined. The systemic coder (O'Donnell, 2023) is applied on participants' collected data. Results show that the linguistic style of a professor is found to affect students' perceived empathy of written feedback for learning provided on their

assignments. The use of the ideational meanings of material processes, mental processes, verbal processes, nominalised imperfective clauses, verbal classifiers, derived verbal nouns, non-human participants, passive voice, and circumstances; the interpersonal meanings of declarative statements, yes/no questions, wh-questions, modalization (usuality), modulation (inclination) and vocatives (second person); the textual meanings of interpersonal Theme, textual Theme, lexical density, continuity, conjunction, cohesion and emphasis, clause complex, expansion (elaborating) and expansion (extending); and the appraisal meanings of positive force, positive focus, positive judgment, positive appreciation, positive emotion, proclamation, entertainment and attribution in written feedback provided to students are all found to help students perceive feedback as empathic. Thus, professors are suggested to increase the use of these language aspects when providing feedback to students. The reason is because of the hidden positive meanings these aspects can add to the feedback provided. This feedback is more likely to be perceived by students as reflecting empathy. However, the use of the ideational meanings of behavioural processes, existential processes, relational processes, underived verbal nouns, nominalised adjectives, abstractions, human participants, missing participants and active voice; the interpersonal meanings of imperative statements, not-full questions, modalization (probability), modulation (obligation), personal pronouns and vocatives (third person); the textual meanings of topical Theme, structural textual adjuncts, no cohesion, ranking clauses and grammatical intricacy; and the appraisal meanings of negative force, negative focus, negative judgment, negative appreciation, negative emotion and disclaim in written feedback to students are found to help student perceive feedback as reflecting no empathy. Hence, professors are advised to decrease the use of these aspects when providing feedback. This is because of the hidden negative and unintended meanings these aspects can add to the feedback provided.

Additionally, results show that students perceive feedback as empathic when it cognitively meets student needs, affectively respects student feelings, and compassionately provides actions or solutions for improvement. Likewise, empathic feedback is found to result from healthy relationships among participants, professors and students in this case. These relationships could help participants build teamwork and enrich their experiences in learning. Besides, empathic feedback is found to be detailed and customized to the point in hand. Moreover, empathic feedback is found to be the responsibility of professors as they are feedback providers. Professors are recommended to accept that responsibility and overcome any potential barriers like class size and/or technology that may prevent them from providing empathic feedback. Failing to provide students with empathic feedback is found to reflect negative consequences on students. These consequences can confuse and overwhelm students and it can drive them to make unhealthy decisions, which may prevent them from succeeding in a learning episode. Decision-makers are also requested to help professors by reducing the number of accepted students in each class and the number of tasks required for each learning episode. Similarly, professors are advised to understand their students by building healthy communications with them. Lastly, professors are recommended to keep training themselves and to seize any opportunity that may improve their skills on how to provide empathic feedback.

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## Dedication

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## Chapter One: Introduction

Empathy can play a significant role in improving formative assessment for learning in higher education. Empathy refers to a person's ability to understand and share the feelings, thoughts, and behaviours of others (Wang et al., 2003). It is an essential part of raising responsible citizens (Ekman, 2003), having respectful interactions, and being kind to others (Kehret, 2001, p. 44). Likewise, empathy can improve teaching and learning (Aldrup, Carstensen, & Klusmann, 2022; Darder, 2015). For instance, when empathy is employed by teachers, in their teaching, it can increase student engagement in the learning process (Darder, 2012). It can also promote students to engage in prosocial acts like helping, donating, and volunteering (e.g., Decety, 2012). Moreover, empathy can build a healthy classroom culture surrounded by praise and respectful relationship among participants, professors and students in this case (e.g., DeVito, 1986). Lastly, empathy is more likely to prepare students to be leaders (e.g., Goleman, 2007; Sinek, 2014). More light will be shed on empathy in chapter two.

In the same vein, empathy can enrich formative feedback, which is a powerful tool that can enhance student learning (e.g., Darder, 2012; Hattie & Timperley, 2007). According to Hattie and Timperley (2007), feedback refers to “information provided by an agent (e.g., teacher, peer, book, parent, self, experience) regarding aspects of one's performance or understanding” (p. 81). Feedback is a “consequence” because it can be used to correct or clarify ideas, encourage a person, and/or evaluate performance, which makes it an integral part of formative assessment (Hattie & Timperley, 2007). Formative assessment is a “process used by teachers and students to recognize and respond to student learning in order to enhance that learning, during the learning” (Cowie & Bell, 1999, p. 32). Formative feedback is a useful tool that feedback providers can

employ to improve student learning (Black & Wiliam, 2006, 2009; Brookhart, 2008; Sadler, 2015; Wiliam, 2017).

Formative feedback has been debated for more than three decades (e.g., Black & Wiliam, 1998; Sadler, 2010, 2015). It can promote student learning and its usefulness can be positively or negatively affected by at least five factors:

1) Formative feedback should be timely-appropriate. Late feedback is perceived by most students as useless because they lose interest and motivation at the end of a learning episode especially when the task in hand is completed (e.g., Black & Wiliam, 2009; Bone, 2006; Hattie & Timperley, 2007; Koh, 2010).

2) It should be appropriate in quantity. Quantity could range from zero to multiple pages of feedback points (e.g., Lizzio & Wilson, 2008; Straub, 1997). Many students complain about short or nil feedback (e.g., Carless, 2006). Lizzio and Wilson (2008) found that students like long feedback that contains explanations and examples. Thus, formative feedback should have an appropriate quantity depending on student needs (e.g., Carless, 2006).

3) Formative feedback should have an appropriate quality. For instance, negative feedback can be demoralising to students. Black and Wiliam (2009) stressed the idea that formative feedback should motivate and encourage students to move forward in learning. The two authors, who have been researching formative assessment since 1984, found that demotivating feedback can hinder student learning and prevent students from proceeding in a learning episode. However, a balanced feedback that has both positive and negative feedback points is preferable by most students (e.g., Alamis, 2010; Bailey & Garner, 2010; Carless, 2006; Mahony, 2008; Weaver, 2006). For another example, many students perceive general feedback as useless. According to Duers and Brown (2009), students perceived general phrases like “Work

on this” or “Weak section” as useless messages because this feedback does not suggest any actions for improvement (p. 657).

4) Formative feedback should be task-oriented. Hyland (2003) argued that useful feedback should be directed to the task in hand and not to the person or person’s performance. Likewise, it should be communicated in a respectful manner taking into consideration that a human being with feelings will read the provided feedback in hand (e.g., Brookhart, 2008; Hyland, 2003). This feedback can build a respectful and human relationship among participants, professors and students in this case, (e.g., Brookhart, 2008; Hyland, 2003; Hyland & Hyland, 2006). To achieve this goal, carefully chosen vocabulary and grammar should be employed while providing feedback (e.g., Alamis, 2010; Duncan, 2007; Higgins, Hartley, & Skelton, 2002; Pazio Rossiter, 2022a; Weaver, 2006).

5). Formative feedback should be goal-oriented. Some authors argued that useful feedback should help students achieve the goals of a learning episode (e.g., Balloo, Evans, Hughes, Zhu & Winstone, 2018; Carless & Winstone, 2020; Hattie & Timperley, 2007; Sadler, 2010, Wiliam, 2011). Sadler (1989) found that useful feedback should show students the goal to be achieved by the end of a learning episode, how students are meeting their teachers’ expectations, and whether students can close any gaps that may prevent them from achieving that goal. Research shows that these conditions can individually or in concert affect feedback usefulness (Agius & Wilkinson, 2014). These conditions will be discussed in more detail in chapter two.

Many studies have been conducted on feedback quantity, feedback quality and feedback timing. However, little attention has been paid to both empathy and language style used while providing feedback to enhance student learning. On the one hand, since empathy is a significant

player that can promote student learning (e.g., Darder, 2015), cognitive empathy, which simply refers to understanding a person's needs, affective empathy, which refers to feelings with a person, and compassionate empathy, which refers to providing actions for improvement (Ekman, 2003) will be examined in connection with formative feedback. By the same token, feedback language has an essential functional role in either motivating students to act upon the feedback provided and improve their learning, or act against it and hinder that learning (e.g., Hyland, 2003, 2006). Therefore, Systemic Functional Linguistics (SFL) theory in general, and "Register" theory in specific, should be considered in connection with formative feedback.

According to Derewianka (1990), SFL deals with how people use language in different contexts to express meaning, argue, entertain, build ideas, share information, request, express attitude, and/or make sense of the world. This overlaps in meaningful ways with the theory of "Register" which helps to clarify the interrelationship of language with context by handling it under three headings of field, tenor and mode of discourse (e.g. Collerson, 1994, Halliday, McIntosh, & Stevens, 1964; Thompson, 2004). Collerson (1994) explains that "Field" refers to the domain being spoken/written about (e.g., the field of Engineering or Management), "Tenor" refers to the relationship among participants involved in a communication (e.g., father and son, or teacher and student), and "Mode" refers to the circumstances in which a message is delivered in terms of the grammatical and lexical choices made by the message provider (e.g., conversation, description, reflection, etc.). Collerson (1994) stated that context refers more specifically to context of situation, which is part of the context of culture. In the context of situation, the reader must identify the field, tenor, and mode. The context of culture refers to the meanings and assumptions that a community of people share (Collerson, 1994). More detail will be provided on language in Chapter Three, the "Conceptual Framework" chapter.

This project on formative feedback aims to examine how empathy was reflected in written feedback provided on graduate students' assignments and how that feedback was perceived by the students concerned. In this study, context of situation refers to field, which is providing feedback formative for learning to graduate students to enhance their learning; tenor refers to the people engaged in this process, which are professors and graduate students; and mode refers to the way of providing feedback, which is written feedback in this case. The context of culture refers to people's beliefs about higher education such as professor feedback should improve student learning and respectful relationships must be established among professors and students in an educational context. To achieve my aim, two research questions were addressed: 1. How is empathy reflected in written feedback provided to graduate students? 2. How is that written feedback perceived by those students?

Empathy reflected by the language used when providing feedback, in addition to student perception of that feedback, were examined in a small sample of graduate students from a Faculty of Education. The systemic coder (O'Donnell, 2023) is employed and results are integrated. More detail is provided in Chapter Four, the "Methodology" chapter. Results in this study show that the linguistic style of a professor tends to affect the reflected empathy in written feedback provided to graduate students and how those students perceive that feedback. More details will be in Chapter Five, "Results". The role of SFL with the focus on this new addition to the literature of feedback and formative assessment in the Educational domain will be discussed in Chapter Six, "Discussion and Conclusions".

## Chapter Two: Literature Review

Empathy can play a significant role in improving formative feedback. Empathy refers to a person's ability to understand and share the feelings, thoughts, and behaviours of others (Wang et al., 2003). It is an essential part of raising responsible citizens (Ekman, 2003), having respectful interactions, and being kind to others (Kehret, 2001, p. 44). Empathy can also improve teaching and learning (Darder, 2015). Likewise, empathy can enrich formative feedback, which is a powerful tool that can enhance student learning (e.g., Darder, 2012; Hattie & Timperley, 2007). Research shows that teachers can affect students' learning by the linguistic choices they make when teachers provide written feedback to their students (e.g., Brookhart, 2008; Eggins, 2004; Hyland, 2003; Pazio Rossiter, 2022a). This current study will deal with empathy and formative feedback. It will utilize Systemic Functional Linguistics (SFL) as a conceptual framework. The current study will examine how empathy is reflected in the written formative feedback provided to graduate students as determined by SFL and how that feedback is perceived by those students.

### Empathy

Research on empathy started some 250 years ago when certain German philosophers defined it as “an act of imaginatively stepping into another person's perspective”, coining the term “*emfühlung*”, literally meaning “in-feeling”, and “empathy” in Latin (Tettegah & Anderson, 2007, p. 49). Empathy can be objective in responding emotionally, cognitively, and communicatively to others (Wiseman, 1996). The interest in empathy by various fields and domains such as psychology, sociology, neurology, and education demonstrates that empathy is essential to human relationships (Batson et al., 1997; Houston, 1990; Omdahl, 1995). Empathy has an ultimate goal of building successful interactions among people (Darder, 2015).

During the last century, empathy has been viewed as a fixed trait that could not be taught (Cronbach, 1955; Hogan, 1969). However, recent research has shown empathy to be a skill which, like all skills, can indeed be taught and developed over time (Davis, 1994; Hakansson & Montgomery, 2003; Wang et al., 2003). However, empathy is built on the foundation of “having self-awareness” which refers to “the capacity of becoming the object of one’s own attention” (Morin, 2011, p. 808). Self-awareness permits a person to reflect on continuous feedback from others for personal improvement (Goleman, 1998). For example, imagine that a person has a problem and you want to help him or her. You have to be aware of the problem by asking yourself, “What kind of help would I need if I had that same problem?” Then, once you have an answer, you may apply it to the problem in hand. Thus, it is safe to conclude that self-awareness is a pre-requisite step that can lead to empathy, and that lack of self-awareness could mean a lack of empathy.

In fact, empathy can improve interactions among people by developing the ability to precisely assess the other person or group and respond accordingly (Goleman, 2007). For example, if an older person is out in the street and falls over, one may immediately assess the situation and help him or her up. The first step toward such a skillful prosocial behaviour is self-awareness, which enables the person, as a second step, to empathize with others by tuning in to them and trying to understand, feel, and respond to what they are feeling (Ekman, 2003; Goleman, 1998). Sustaining close relationships can be difficult without empathy (Ekman, 2003). Besides, empathic people are found to have strong relationships with others (Goleman, 1998). Empathy can therefore be defined as

Sensing what others feel without their saying so...[and] at the very least, empathy requires being able to read another’s emotions; at a higher level, it

entails sensing and responding to a person's unspoken concerns or feelings.

At the highest levels, empathy is understanding the issues or concerns that lie behind another's feelings (Goleman, 1998, p. 134-135).

This definition shows that empathy has at least three forms: cognitive, affective, and compassionate (Powell & Roberts, 2017). According to Ekman (2003), cognitive empathy is thought component, affective empathy is feeling component, and compassionate empathy is behavioural component.

### *Cognitive Empathy*

Cognitive empathy refers to "the perception and (accurate) identification of others' feeling states" (Powell & Roberts, 2017, p. 138). It is a logical process which enables one to put him/herself in someone else's place just to understand how that person feels, without necessarily being too engaged with that person's feelings (Ekman, 2003). Recognizing how a person may feel when losing a family member or failing a significant examination are examples of cognitive empathy (Goleman, 1998). Cognitive empathy is found to have positive and negative sides (Powell & Roberts, 2017).

Positively, cognitive empathy predicts social behaviours such as understanding the importance of extending help, volunteering and compassion (Batson et al., 1997; Marjanovic et al., 2012). These social behaviours among others are significant to social interactions among people. Negatively, on the other hand, cognitive empathy facilitates manipulation and exploitation (Wai & Tiliopoulos, 2012). For example, bullying at schools is an act of manipulation in which the manipulator seeks to control the victim (Goleman, 2007). The manipulator in this case, understands how to make the victim suffer. Similarly, torturers would need to have cognitive empathy to best hurt someone without expressing feeling toward them

(Goleman, 2007). Furthermore, psychopathic patients are found to have high levels of cognitive empathy (Baron-Cohen, 2011). For instance, in an experiment done with highly psychopathic persons, the results showed that when they were asked to imagine pain to themselves, their brain lit up in all the areas involved in empathy (Bergland, 2013). But it is interesting to note that when people have cognitive empathy, they seem to have the choice to employ it either positively or negatively.

### *Affective Empathy*

Affective empathy is “the subjective mirroring of others’ feeling states” (Powell & Roberts, 2017, p. 138). Goleman (1998) claims that affective empathy is the next step after cognitive empathy as it involves not only understanding how others feel, but also experiencing their feelings. For example, one might feel visceral reaction as a result of watching a scary film. This reaction reflects affective empathy because one feels with others’ feelings (e.g., Ekman, 2003, Jones & Dawkins, 2018). Similar to cognitive empathy, affective empathy has positive and negative sides (Ekman, 2003). Positive affective empathy promotes social bonding such as attachment to families and commitment to social norms and institutions (Hirschi, 1969; Stel & Vonk, 2010). Thus, positive affective empathy is a required skill for strengthening social bonds among people (Powell & Roberts, 2017).

Negative affective empathy, on the other hand, arises when detachment resulting from sharing powerful negative emotions leads to indifference such as withdrawal and avoidance (Singer & Klimecki, 2014). Excessively high levels of affective empathy are negative and detrimental to human relationships (Powell & Roberts, 2017). For example, doctors and nurses are recommended to work on their self-control to manage their emotions. Otherwise, it is possible for many of them to become overwhelmed due to sharing negative feelings of others.

Similarly, Bergland (2013) found that when highly psychopathic persons were asked to imagine pain to others, the only neural area activated was an area implicated in pleasure and happiness. This shows that extremely low levels of affective empathy can also be harmful as it lacks compassion toward others in response to their suffering (Bergland, 2013). Thus, the two extremes of affective empathy should be avoided.

### *Compassionate Empathy*

Compassionate empathy is the action(s) to be made in response to empathic impulses toward others (Powell & Roberts, 2017). Compassionate empathy is theorized to be a common, but not a definite consequence of both cognitive and affective empathy (Ekman, 2003). Goleman (1998) argues that understanding what a person is going through is cognitive empathy. Then, trying to feel the pain of that person is affective empathy. Having these two types of empathy is more likely to drive people to either take or help a person to take action that can reduce or end their pain and suffering, which is compassionate empathy (Ekman, 2003). For instance, when patients crying in pain go to doctors, they expect doctors not to cry with them, but to take action that can reduce their pain (Ekman, 2003). Consequently, compassionate actions that a person is likely to take toward others depend on how strong that person's cognitive and affective empathy responses are (Powell & Roberts, 2017). Thus, out of the three forms, compassionate empathy is seen as the most socially desirable response because it involves taking actions (Powell & Roberts, 2017).

### **Teacher Empathy and Student Learning**

Teacher empathy, or professor empathy in this case, can increase student engagement during the learning process (Darder, 2012). When teachers listen, understand and care for students, students are more likely to become largely involved in academic environments

(Valenzuela, 1999). This may strengthen the teacher-student relationship, which could drive a student to work harder. Darder (2012) recommends teachers showing empathy by speaking to students even outside of class, such as at lunch-time, or break-time. Moreover, teacher empathy can help students to be positively connected to their learning, which can help them overcome potential academic obstacles (Durlak et al., 2011). Furthermore, according to Pollard (1993), when teachers support and empathize with students, students are more likely to achieve goals, become stronger critical thinkers, and more self-reliant learners.

Teacher empathy also can encourage students to engage in prosocial acts such as helping, donating, and volunteering (Darder, 2015; Decety, 2012). Empathic teachers are more likely to encourage students to realize the importance of taking care of others (Stel & Vonk, 2010). These acts of teachers may help students become more responsible persons. Similarly, empathic teachers help students to less likely engage in aggressive behaviour toward others (Eisenberg, 2000; Findlay et al., 2006; Salmon, 2003). According to Bergland (2013), lack of compassion toward others, especially during periods of suffering, reflects a low level of affective empathy, which can be harmful to the victim. As a result, lack of empathy in teachers can lead to bullying and hurting students. This can put negative impact on students and their participation in prosocial acts.

Furthermore, teacher empathy can build a healthy classroom culture (Darder, 2015). This culture is surrounded by praise, release of control, positive employment of disagreement, and respectful relationship among teachers and students (DeVito, 1986). It is built on mutual respectful communication that can lead to an effective set of interactions (DeVito, 1986). Examples of these interactions can be supportiveness, positivity, openness, and/or confidence (DeVito, 1986). For instance, a supportive teacher may have a positive encouraging dialogue

with a student who fails to submit an assignment on time. These empathic interactions may increase trust and understanding among teachers and students (DeVito, 1986). This can improve the student's self-efficacy (Bandura, 1977). Self-efficacy is defined as "personal confidence in the ability to successfully perform tasks at a given level" (Shell et al., 1989, p. 91). Enhancing student self-efficacy can provide the student with confidence to overcome challenges by allowing them to rise over the fear of failure (Bandura, 1977). Aldrup et al. (2022) state that empathy is more likely to be a particularly promising determinant for explaining high-quality teacher-student interactions. Thus, teacher empathy can motivate students to engage in dialogues and make decisions that could improve their learning.

Finally, teacher empathy may prepare students to be future leaders (Goleman, 2007; Sinek, 2014). According to Sinek (2014), leaders must not only understand the people they lead but also care for them. Teachers should empathize with students to encourage students to value how leaders empathize with those whom they lead (Nahavandi, 2015). Darder (2015) argues that empathic teachers can promote open-mindedness and encourage insight into different perspectives regardless of colour, gender, cultural background, and any other distinguishing traits. This can strengthen the teacher-student relationship and their mutual trust (Nahavandi, 2015). Empathic teachers may role model empathic behaviours in the classroom (DeVito, 1986). Some role modeling examples are actively listening to and understanding students, managing negative emotions, calling the student, parents and colleagues by their preferred name, and respecting the student as an individual. These actions are more likely to teach students to become empathic persons in the future.

### Formative Feedback

Formative feedback is a tool that can enhance student learning in higher education (Black & Wiliam, 1998a, 1998b; Hattie & Timperley, 2007; Hyland, 2003; Nash & Winstone, 2017; Sadler, 1989, 1998; Wiliam, 2016). Formative feedback refers to “information about a person’s performance or behaviour, or the impact of performance or behaviour that is intentionally delivered to that person to facilitate change or improvement” (Van Velsor et al., 1997, p. 36). Formative feedback is one part of formative assessment, which is “the process used by teachers and students to recognize and respond to student learning in order to enhance that learning, during the learning” (Cowie & Bell, 1999, p. 32). Hence, useful feedback can promote student learning (Carless, 2006).

Research on formative assessment for learning in higher education has found at least five conditions that can individually be perceived as useful and promote student learning: 1) *timely* feedback where the timing of feedback depends on the nature of the task; 2) *quantity* of feedback which is appropriate to student needs; 3) *quality* feedback that is based on student level of achievement; 4) *task-oriented* feedback that is directed to the task rather than the person; and 5) *goal-oriented* feedback that can lead students to meet or exceed expectations. Research shows that the more the feedback for learning provided meets these conditions, the more likely it is to be perceived as useful by students (e.g., Hattie & Timperley, 2007; Hyland, 2003; Nash & Winstone, 2017; Wiliam, 2016). Likewise, these five conditions are important for feedback providers to demonstrate empathy in their feedback. Understanding these conditions or how they may be perceived by, and affect, students can help teachers on what, when, how much and why to provide feedback for learning (e.g., Carless & Winstone, 2020; Hattie & Timperley, 2007; Winstone & Boud, 2019).

***Feedback-Timing***

Feedback timing generally refers to immediate or delayed feedback. Immediate feedback is the feedback provided to students during the task in hand before a learning episode ends, whereas delayed feedback is provided at the end of a learning episode (Shute, 2008). Appropriate feedback timing can be affected by the nature of the task (Clariana, 1990). For example, immediate feedback can enhance learning when a student is learning a relatively difficult new task (Clariana, 1990). Immediate feedback in this case can motivate the learner to continue learning and not to feel frustrated (Knoblauch & Brannon, 1981). It can provide the student with necessary information to improve. Moreover, immediate feedback can be useful with procedural and conceptual tasks, particularly for middle and low-achieving learners (Azevedo & Bernard, 1995; Mason & Bruning, 2001; Shute, 2008). It can help the student progress step by step by providing the required information or concepts. Thus, providing feedback for learning during a task can be perceived as a helpful learning strategy (Black & Wiliam, 2006; 2009).

In contrast, delayed feedback for learning can enhance the learning of high achieving learners, but not low-achievers (Gaynor, 1981). Clariana (1990) finds that delayed feedback can provide students with more freedom to work independently. Generally speaking, delayed feedback seems to be useful with relatively simple tasks. It would be preferred by high achievers because they tend to recognize moderate or even difficult tasks as relatively easy for them. Therefore, immediate intervention is not required. But delayed feedback can be frustrating for less motivated learners (Shute, 2008). These learners may not have the required information to build new knowledge. Therefore, they might discontinue learning because of the lack of immediate help. Thus, the achievement level of learners, their needs, and the nature of the task in

hand can help teachers determine what feedback timing can be perceived as useful and promote student learning in higher education (Shute, 2008).

### *Feedback-Quantity*

Feedback quantity refers to the amount of feedback. According to Carless (2006), students complain about the brief feedback they receive from their professors. Small amount of feedback seems to be perceived by students as a sign of its uselessness. Short feedback might fail to suggest any ways on how to complete a task or how to proceed in learning. Rakoczy, Pinger, Hochweber, Klieme, Schütze, and Besser (2019, p. 159) argue that “Feedback in the classroom [helps students] learn where and how they could improve”. Similarly, Hounsell et al. (2008) report that due to feedback scarcity, the participants in their study were dissatisfied. Short feedback is more likely to be ignored by middle and low-achieving students because it can be perceived as insignificant (Carless, 2006). Short feedback may further imply that the feedback itself is not worthy of consideration as an area of improvement; the lack of words could be taken to reflect a lack of ideas and feedback on the teacher’s part.

Likewise, long feedback can be useful to middle and low-achieving learners (Shute, 2008). Lizzio and Wilson (2008) argue that students desire to have long feedback full of explanations and examples. Long feedback can show students their professors’ involvement in the assignments in hand. This involvement seems to motivate students to improve their learning. Black and Wiliam (2009) highlight the importance of motivating students during the learning process. For example, providing students with the necessary information and skills could positively stimulate students to complete the task in hand and continue learning. This information can give students the feeling that they are in control of the task in hand because they have the knowledge to improve. However, complex feedback, which refers to “how much and

what information should be included in the feedback messages” can hinder learning (Kulhavy et al., 1985; Shute, 2008, p. 159). Excessive added details could make the feedback perceived as diluted and diffused. Winstone, Nash, Rowntree, and Parker (2017) argue that students perceive the feedback provided by their professors as useless because it is not understandable nor actionable. Hence, formative feedback should be tailored to student needs (Irons & Elkington, 2022; Sadler, 2015).

### ***Feedback-Quality***

Feedback quality refers to both the balance between positive and negative comments, and feedback focus (Agius & Wilkinson, 2014). Feedback with unbalanced positive and negative comments is likely to be perceived as useless (e.g., Duncan, 2007; Piccinin, 2003; Poulos & Mahony, 2008; Weaver, 2006). Weaver (2006) reports that positive comments were preferred by all the 34 students participated in her study. Moreover, negative comments led 40% of those students to feel demoralized (Weaver, 2006). Negative feedback seems to hurt the student self-esteem. Therefore; it can have negative effects on learning (Cramp 2011; Lewis, Huebner, Malone, & Valois, 2011; Shield 2015; Wiliam, 2011). It can motivate students to act against the provided feedback to protect their egos instead of acting on it to improve learning (Rand 2017; Wiliam, 2011, 2016). Similarly, Gee (1972) concludes that negative comments “kill[s] whatever it is that allows a student to believe in his ability” in performing a task (p. 216). Negative written feedback provided to students can result in negative emotions that drive some students to leave universities (Holmes, 2023). Thus, negative feedback should be avoided.

Focused feedback, on the other hand, can be useful especially for middle and low-achieving learners (Graesser et al., 2005; Shute, 2008). Shute (2008) argues that focused feedback addresses the topic, response, and error(s) in a directive way. It can provide working

examples and gentle guidance (Shute, 2008). For example, focused feedback might discuss why one way of answering a task is not enough. Additionally, focused feedback is preferred to grades by middle and low-achieving learners (Shute, 2008). Harks, Rakoczy, Hattie, Besser, and Klieme (2014) state that process-oriented feedback is perceived as more useful than grade-oriented feedback, which can result in a positive effect on changes in students' achievements. Perera et al. (2008) found that 75% of the 407 students surveyed in their study believed that focused feedback is involved more than grades. The crucial role of focused feedback in helping students build their knowledge and improve their learning seems to be recognised by students. Winstone and Boud argue that (2022, p. 657), "The primary function of feedback is to influence students' future work and learning strategies". Similarly, Straub (1997) researched 142 students and found that the participants preferred focused comments to general ones. It seems that lack of suggestions and explanations on how to improve a task makes feedback unfocussed and therefore, unhelpful. Thus, focused feedback can promote learning.

General feedback might confirm whether an answer is correct or incorrect. It is referred to as "verification" and commonly used "with a checkmark" (Shute, 2008, p. 158). General feedback can help high-achievers to proceed in learning by themselves without immediate help (Hanna, 1976). General comments may be useful for high-achievers as they could indicate to those students whether they are improving or not. But general feedback for middle and low-achievers is found to be unhelpful (Carless, 2006). It seems those students are interested in more explanation, suggestions, and/or examples to enhance their learning. However, general comments such as "well done", "way to go", or "awkward" are not formative (Shute, 2008). They fail to provide the student with any suggested strategies on how to improve or meet expectations (e.g., Duers & Brown, 2009; Van Velsor et al., 1997). Thus, student perception of

the usefulness of general or focused feedback can be affected by the student level of achievement (Hanna, 1976). Professors are urged to know the levels and needs of their students before they provide feedback.

***Task-Orientation***

Task-oriented feedback refers to directing the feedback toward the task or process in hand, whereas, “ego-oriented” and “performance-oriented” feedback would direct feedback to the person or performance in question, respectively (Black & Wiliam, 2009, p. 24). For example, a message such as “You have not thought of the implications of this part on your study” can carry negative unwanted hidden effects such as blaming and finger-pointing at the person (e.g., Eggins, 2004). Directing the message to the person’s performance by using “You have not thought” or to the person by using “your study” can negatively affect the person’s self-esteem because this message can imply blaming (e.g., Thompson, 2014; Wiliam, 2011). Ego-oriented and performance-oriented feedback can demoralize students (Butler, 1987). The same previous message could be directed to the task by, for instance, using the strategy of questioning as in “What are the implications of this part on the whole study?” This strategy can be perceived as more motivating because it is directed to the task rather than pointing at the person (e.g., Black & Wiliam, 2009). Hark et al. (2014) argue that feedback providers generally assume that students automatically perceive feedback the way it is intended to be perceived. However, there is a large amount of evidence that students are often dissatisfied with feedback practices they experience (e.g., Winstone & Boud, 2019). They expect that the information provided in the feedback is unproblematic. Thus, ego-oriented and performance-oriented feedback should be avoided.

Similarly, Brummelman et al. (2014) argue that person-praise, though positive, can promote negative feelings and actions. For example, a feedback point like “X was a good student

and passed all exams”, can lead a learner to believe that success is due to uncontrollable traits in him or her like, for instance, being good in this case (Choi & Ross, 2011). However, being good cannot guarantee passing all exams. When that person fails as a result of not understanding a learning episode, that person will express negative feelings and actions to protect his or her image (Brummelman et al., 2014). Instead, process-praise can motivate students, including low self-esteem students, to understand the content and improve themselves toward the expectations (Brummelman et al., 2014). The above example could be redirected to the process by saying “X put effort and passed all exams”. This form of words can indicate that success is due to putting effort which learners can control, unlike internal traits which they cannot control (Choi & Ross, 2011). Thus, professors are advised to use task-oriented feedback.

***Goal-Orientation***

Goal-oriented feedback refers to the outcomes to be achieved by the end of a learning episode and it can play a most significant role in promoting student learning (Black & Wiliam, 2010; Hattie & Timperley, 2007; Sadler, 2010). As it implies, goal-oriented feedback can relate both to the material taught and the overall goals and expectations (Sadler, 2015). According to Carless and Winstone (2020), when teachers and students share the purposes and goals to be achieved by the end of a learning episode, then there is potential for mutual cooperation and understanding for both the teacher role and the student role. When students do not know what is expected of them, this can become both a source of student frustration and a hindrance to useful feedback processes (Balloo et al., 2018). Hattie and Timperley (2007) suggest that effective feedback should answer three questions: “Where am I going?[...], How am I going?[...], and Where to next?” (p. 86). These three questions can help the student understand the learning process and the task in hand (Hattie & Timperley, 2007).

The first question is expected to clarify the standards or goals to be met to pass a learning episode (Hattie & Timperley, 2007). This can be a significant step at the beginning of a learning episode (Sadler, 2010) It may familiarize students with the expectations. The second question can provide students with information about the knowledge and skills they already have and those to be acquired to meet expectations (Hattie & Timperley, 2007). This might help students realize their areas of improvement and help teachers get an idea of the students' needs. The last question can provide learners with information on what to do and how to acquire new knowledge and skills (Hattie & Timperley, 2007). Acquiring new knowledge can move the students to the next level, where they learn and transfer this learning to other tasks (Hattie & Timperley, 2007). Thus, professors are recommended to apply goal-oriented feedback when they provide feedback to students.

To sum up, student perceived usefulness of feedback for learning in higher education is based on student needs, achievement level(s), and task nature (Shute, 2008). Much research has been done on feedback timing, quantity, quality, task-orientation, and goal-orientation as significant conditions that can positively or negatively affect the perception of feedback usefulness (Carless & Winstone, 2020; Sadler, 2010; Wiliam, 2011). Thus, before providing formative feedback, professors are expected to know student needs which lie at the core of empathy. However, little attention has been given to how empathy is reflected in the linguistic style of the feedback provided and how this style may affect the perception of students, which is the focus of this study.

### **Social Emotional Feedback**

The above literature on formative feedback for learning in higher education is extended by results that researchers in social emotional feedback have found. Rand (2017) stated that

students' emotional reactions are significant because they could work as motivator or demotivator for students to act on their provided feedback. Additionally, Olderbak, Sassenrath, Keller, and Wilhelm (2014) found that both positive and negative emotions, which are multi-componential, can be provoked by affective empathy. That is why the subjective feelings, thoughts, expressions, and reactions can differ depending on the type of elicited emotion; i.e., sadness, anger, joy, happiness, fear, etc. (Olderbak et al., 2014; Scherer, 1984).

On the one hand, negative emotions resulting from receiving negative feedback could negatively affect students' confidence and self-esteem (Cramp, 2011). Moreover, they could delay students and drive them to take a longer time to act on their provided feedback and proceed in their learning (Shield, 2015). Holmes (2023, p. 67) argued that "... where feedback had a negative emotional affect, [students] may not use it to make improvements to future work, may delay engaging with it, or may disengage from it entirely." Additionally, Lewis et al. (2011) suggested that negative feelings resulting from negative feedback had detrimental effects on learning. These negative emotions drive some students to leave universities (Holmes, 2023).

On the other hand, Perkrun, Goetz, Frenzel, and Perry (2011) found that positive emotions resulting from receiving positive and useful feedback can affect learning positively. According to Morris, Perry, and Wardle (2021), formative feedback for learning should be constructive and supportive so that the student can positively react on it and proceed to close any gaps in their current level of knowledge and improve learning. Research on formative feedback perceived usefulness shows that when students understand the rationale behind providing feedback, they are more likely to perceive that feedback as useful and positively react on it (e.g., Winstone & Boud, 2019, 2022; Winstone et al., 2017). This understanding can also minimise students' negative emotional reactions (e.g., Morris et al., 2021).

According to Winstone and Boud (2022, p. 657), “The primary function of feedback is to influence students’ future work and learning strategies.” However, there is evidence that students are often frustrated and dissatisfied with feedback practices they experience (Winstone & Boud, 2019). There are many reasons that may cause these negative emotions of frustration and dissatisfaction. One reason could be that the provided feedback was not easily understandable, useful or actionable (Winstone et al., 2017). A second reason might be that the written feedback for learning provided to students was not individually tailored to their needs (Irons & Elkington, 2022). A third reason may be because students did not know what was expected from them as they were not familiar with the goal to be achieved by the end of a learning episode (e.g., Balloo et al. 2018; Carless & Winstone, 2020). A fourth reason could be due to the tone in which feedback was shared because negative tone can negatively affect how students react to that feedback (Lipnevich, Berg, & Smith 2016). A fifth reason could be the extent of commitment exhibited by feedback providers, professors in this case, in the process of providing feedback for learning to their students (Price et al., 2011). Teachers’ more committed to providing feedback for learning can encourage students to continue discussion or ask for clarification (Price et al., 2011). A sixth reason could be that the provided feedback was not process-oriented, which is perceived by students as more useful than grade-oriented feedback (Harks et al., 2014). A final reason might be that feedback designers, professors in this case, generally assume that students automatically perceive feedback in the same way that they intended it to be perceived (Harks et al., 2014). This may not always be true. Thus, one or more of the above mentioned reasons could have negatively affected students to feel dissatisfied with the written feedback provided to improve their learning.

### **Systemic Functional Linguistics**

SFL focuses on “how people use real language for real purposes” (Derewianka, 1990, p. 4). It is a linguistic theory developed by Halliday (1964; 1985, 1994) and his colleagues. According to this theory, the primary function of language is to communicate meanings in particular contexts for specific purposes (e.g., Eggins, 2004; Halliday, 1973, 1985, 1994; Halliday & Matthiessen, 2004; Martin, 2001, 2009; Thompson, 2004, 2014). The choices made by the speaker/writer when choosing to communicate meanings are connected to cultural and social contexts (e.g., Thompson, 2004). Different cultures have decided over time on what patterns of language or “registers” are the most effective in achieving specific purposes (Martin, 2001, 2009). Moreover, different cultures have decided what is socially appropriate or inappropriate. For example, asking someone to “Close the door” without adding the word “please” is considered socially inappropriate and may be perceived as impolite in English speaking countries (e.g., Eggins, 2004; Martin, 1984, 1985). SFL theorists can determine the purpose of a message by analysing the language and the structural elements used in that context. Halliday (1999, p. 4) argues that,

Language considered as a system— its lexical items and grammatical categories — is to be related to its context of culture; while instances of language in use — specific texts and their component parts — are to be related to their context of situation.

According to Halliday (1999, p. 6), it was 1923 when the British Malinowski and Firth stressed situation as the context for language as text, and they saw language as a form of action, as the enactment of social relationships and social processes. Then, the American Sapir and Whorf stressed “... culture as the context for language as system; and they see language as a form of reflection, ..... a theory or model of reality.” After that, the European Mathesius, who was the

founder of the Prague school, showed how the grammar of spoken language was organized so that it related systematically to the surrounding context, including both the context of culture and the context of situation.

In his chapter, Halliday (1999) describes the relationship between context of situation and context of culture as the relationship between weather and climate, where context of situation in this case is the weather and context of culture is the climate. Halliday provided a more concrete example, in language education, someone is learning a mother-tongue language or a second language, learning the language of science or mathematics, learning to read and write, or learning the styles of writing compositions, that learner has to build a linguistic system in his or her mind. That is the context of culture. When that learner starts producing for example, piece of writing, reading, speaking, or solving mathematical issues, this production is the context of situation.

Different contexts require different language choices or registers. Register is determined by field, tenor, and mode of discourse (e.g., Thompson, 2014). Register represents the context of culture (Halliday, 1999). Field is generally defined as what the speaker/writer is talking/writing about, tenor is the relationship between the speaker/writer and the listener/reader, whereas mode is how the text is organised (Schleppegrell, 2004). Field, tenor, and mode are the three social functions of discourse (Martin & Rose, 2008). Every utterance the speaker/writer makes refers to the context of situation and employs grammatical and lexical resources to build field, tenor and mode (Coffin, 2003; Halliday, 1999).

First, field (also known as the domain), e.g. the field of Law, Biology, etc., cannot be underestimated in a text as it is the factor which decides whether a text has “focus” or not (Martin & Rose, 2007). Secondly, tenor is to do with “the people involved in the communication

and the relationship between them” (Thompson, 2004, p. 40). Finally, mode is the third and final register factor defined as “the role language is playing in the interaction” (Eggins, 2004, p. 90).

At a deeper, more functional level, these grammatical and lexical resources serve macro-functions known as the ideational, the interpersonal, and the textual. Coffin (2003, p. 15) defines the ideational resource as “internal and external reality”, the interpersonal resource as “interacting and building relationships”, and the textual resource as how we “organise information coherently”.

When language is written or spoken, it is about “something”. Within the first function of language, “[t]he field of discourse can be seen to be related mostly to the ideational function of language” (Gregory & Carroll, 1978, p. 27). The second function of language is that it does “something” socially. “It happens between and amongst people, and so it has an inter-personal function” (p. 27). That interpersonal function can be related to tenor. Linguists also recognize that “language has ways of doing its own things” and that is what has been called “the textual function of language” (p. 27). That function can be related to the mode of language.

SFL provides this study with an explanatory power by highlighting the main functions of language. According to SFL linguists, language, whether written or spoken, has three functions: relating experience, creating personal relationships, and organizing information (Eggins, 2004; Gregory & Carroll, 1978; Halliday, 1973, 1978, 1985a, 1989a, 1989b, 1989c, 1994; Halliday & Hasan, 1989; Halliday & Matthiessen, 2004). These three macro-functions can be tackled most adequately through a theory of language register such as the one originally proposed by Halliday (1964). To recap, the terms field (and related ideational resources), tenor (interpersonal meanings) and mode (home to “textuality”) are terms commonly in use as labels for the three meta-functions, respectively.

Previous studies on formative feedback for learning in higher education and its perceived usefulness focused on feedback quantity, feedback quality, and/or feedback timing. Few studies targeted feedback language. For instance, students complained about the use of specific terminology and abbreviations (Bailey & Garner, 2010). For another example, students did not understand written feedback due to the use of academic terminologies (Carless, 2006). Some students preferred oral to written feedback as they thought oral feedback can be easily interpreted (e.g., Duncan, 2007; Lizzio & Wilson, 2008). However, these studies were not focusing on the function of written language. Further, one can find no single study that aimed to explore the reflected empathy in the functional language employed in written feedback or how that feedback is perceived by students. In this study, the goal is to identify the reflected empathy in language of the written feedback provided to students and how that feedback is perceived by those students. To achieve this goal, the three types of empathy (Ekman, 2003) and the SFL Theory (Halliday, 1964; 1985) will be employed. More light will be shed on empathy and language in the following chapter.

### Chapter Three: Conceptual Framework

#### Introduction

This qualitative study will adopt the SFL theory (Halliday, 1964, 1985). It will employ the discourse analysis “Theory of Register”, as in Englander (2009), to examine how empathy is reflected in the written feedback provided to graduate students, and how that written feedback is perceived by those students. This current study has a descriptive side about the effects of the linguistic level that may reflect empathy in written feedback. It also has a prescriptive side about the types of empathy employed in the provided feedback and how they could be perceived by students.

In higher education, written feedback for learning on students’ assignments may be perceived and interpreted by students differently from the intended message for at least four reasons. First, some factors, such as quantity, quality, and timing may affect the perceived usefulness of the feedback provided (Black & Wiliam, 2009; Carless, 2006; Wiliam, 2016, 2017). For instance, general and/or late feedback can be seen as not helpful (Shute, 2008). Secondly, some researchers believe that feedback for learning has at least four levels: the task, the process, the self-regulating, and the self as a person levels (Hattie & Timperley, 2007). Each level can have its own different function. For instance, feedback at the self-regulating level addresses the way students monitor, direct, and regulate actions toward the learning goal in hand (p. 93). Thus, prior to providing students with feedback, feedback providers, professors in this case, are expected to decide both the level and function of that feedback. In addition, students are expected to be informed with the goal of each level, which will help them correctly interpret the provided feedback (e.g., Hattie & Timperley, 2007, MacLellan, 2010). Consequently, this feedback may fulfil student needs. Thirdly, other factors related to learners may affect the

interpretation of provided feedback. For example, learners' competencies, cultures, knowledge, strengths and weaknesses can positively or negatively affect the interpretation of the provided feedback (e.g., Brookhart, 2007, 2008; Hyland, 2003; Hyland & Hyland, 2006; Price et al, 2010). Finally, professors' linguistic style may affect feedback interpretation and usefulness. Linguistic style will be discussed in detail in the coming paragraphs.

### **Formative Feedback and Empathy**

When empathy is applied to written feedback, it can play a significant role in the whole process of providing formative feedback to students (Darder, 2015). To start with, it reflects the feedback provider's understanding of the level and function of the feedback to be provided for each student, which reflects his or her understanding of student strengths and weaknesses (Darder, 2015; Hattie & Timperley, 2007). Moreover, employing empathy in feedback can decide what, when, and how much feedback is to be provided to help students move forward in their learning (Darder, 2012, 2015). In addition, using empathy in feedback can provide feedback providers with deeper understanding about student background in terms of knowledge, competency, and culture, which will help providers to specifically answer student needs (Darder, 2015). Finally, applying empathy in feedback requires using specific linguistic choices in terms of vocabulary and structure, which respect and motivate students. This will encourage students to learn and maintain respectful relationships among teachers and students (e.g., Darder, 2015).

In the same vein, a feedback point like "This is still quite a vague definition." might be perceived by students as negative feedback. The reason for that is because the feedback point indicates the existence of a problem in the definition in hand, but it fails to explain why the definition is vague. More importantly, it does not suggest any actions for development. According to Ekman (2003), identifying a problem without providing any further solutions or

actions for improvement is categorized as “cognitive empathy”, which is the lowest level of empathy. This feedback is not enough and it is unlikely to help students proceed in their learning.

Likewise, providing a feedback point as in “This is a strong section.” can also be perceived as weak feedback. This positive feedback shows that the section in hand meets the criteria of a learning episode, and reflects positive feelings of the feedback provider, but it fails to tell the student how and why so that the student can repeat similar sections in the future. Again, this feedback is more likely to reflect affective empathy, but compassionate empathy, in this specific situation, could be required by many students to enhance their learning. Thus, it seems that empathy cannot be ignored when formative feedback is intended.

### **Written Feedback and Linguistic Style**

Related to the role of empathy, linguistic style of feedback providers may improve formative feedback. However, the relationship between language structure and language function in connection with formative feedback deserves to be re-visited (e.g., Martin & Rose, 2003). Linguistic style refers to the choices of structure and vocabulary made by providers, professors in this case, and how these choices are arranged according to the context in hand (Martin & Rose 2003). Linguistic choices can show respect to students, which will motivate them to move forward in learning, or they can show disrespect to students, which will de-motivate them and hinder their learning (e.g., Hyland, 2003). Therefore, linguistic style can affect the perceived usefulness of formative feedback provided to students.

Research on professor’s linguistic style and how it may affect feedback is scarce. Agius and Wilkinson (2014) argue that discussions of written feedback were completely missing in the majority of the 21 studies they have found and examined (p. 556-557). Although only four studies (Bailey & Garner, 2010; Koh, 2010; Orrell, 2006; Tuck, 2012) had discussions about

theoretical frameworks, these studies had not focussed on the linguistic style in written feedback provided to students (Agius & Wilkinsin, 2014).

Language enables feedback providers to identify misconceptions, misinterpretations, and/or errors and provide students with specific plans to modify these understandings (Wheatley, 1991). This could build effective communication among participants, professors and students in this case. Sadler (2010) stressed the importance of establishing effective communication among participants, but he did not specifically highlight the role of feedback providers' linguistic styles in communication. Similarly, feedback providers' linguistic styles should motivate students to move forward in learning. Black and Wiliam (2009) argued that formative feedback should be motivational. However, the two authors did not suggest how to make feedback motivational in different contexts. For example, Black and Wiliam could have suggested that at the beginning of a task, colorful words may motivate students to start on the task in hand. Then, in the middle of a task, action verbs could assist and guide students on what to do next. Lastly, before the end of a task, evaluative words might become necessary to show students how close they are to meet the expectations of a learning episode. All the above suggestions belong to linguistic style and they could offer linguistic choices to feedback providers, which can help them enhance student learning (e.g., Hattie & Timperley, 2007).

Similarly, Hyland (2003) stressed the interpersonal aspect of feedback, highlighting the role of respectful relationships among participants. But the researcher did not highlight the role of the lexico-grammar in enhancing the interpersonal relationship among parties. For instance, a feedback point such as "Write the author's full name the first time you use it in the paper" employs the imperative "write", which can carry negative effects such as use of power on readers, students in this case (e.g., Eggins, 2004). The feedback point also uses the referring

pronoun “you”, which can imply pointing at the person (e.g., Thompson, 2014). Finally, it utilizes the active voice “you use it in the paper”, which can indicate blaming (e.g., Halliday, 1985; 2008). These language choices can be interpreted as socially inappropriate because of their unintended effects (Halliday, 1985). Feedback that employs these language choices can encourage students to work against the feedback provided in order to protect themselves and their egos (Straub, 1997; Wiliam, 2011, 2016). Consequently, students might ignore such feedback, which could inhibit their learning.

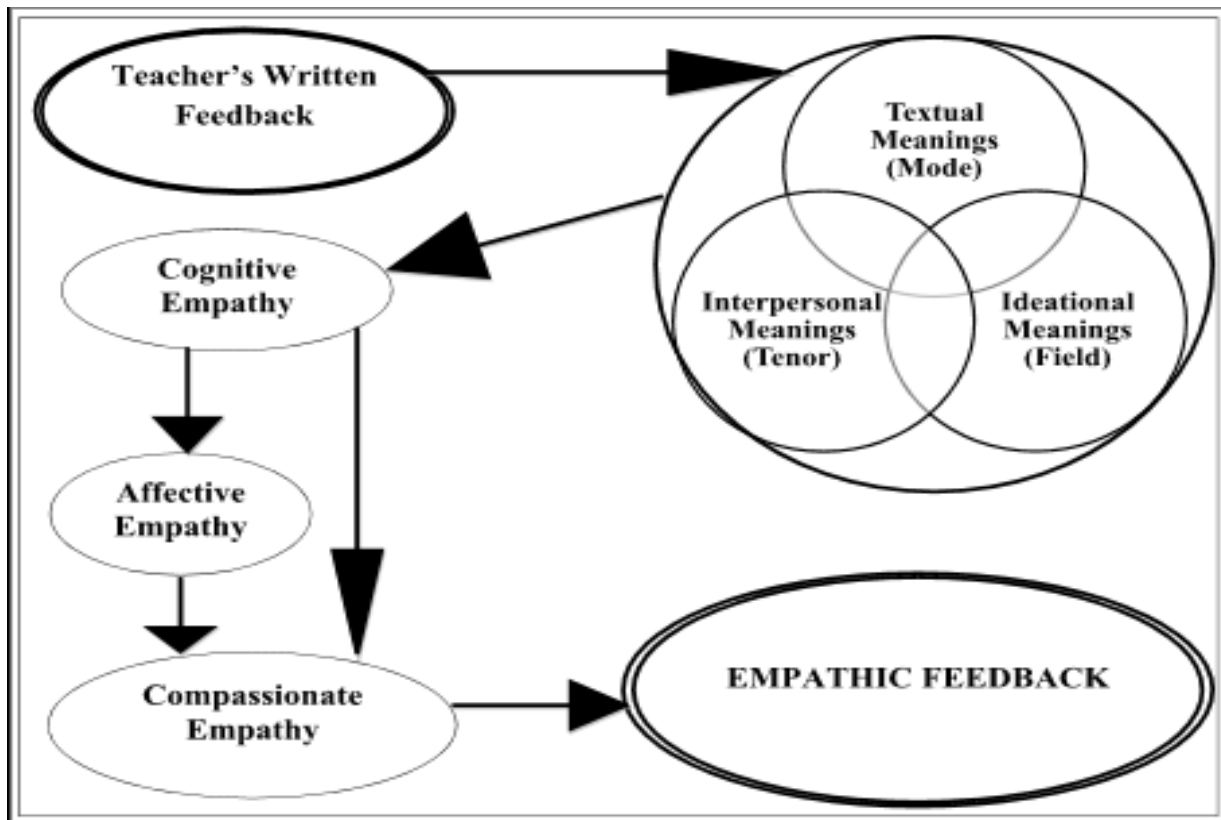
Alternatively, the same message could be provided using suggestion as in “How about writing the author’s full name the first time it is used in the paper?” Employing suggestion as in “How about” can be interpreted as a neutral or positive message because it politely suggests information for the person without it being personal (e.g., Thompson, 2014). Likewise, using the passive voice in “it is used in the paper” is also neutral or positive because the doer of the action is not mentioned (e.g., Halliday, 1985). Hence, this new version of the feedback point is more likely to be interpreted as more motivating and more socially appropriate. This linguistic style can enhance the interpersonal relationship among participants. Consequently, students will more likely work on such respectful feedback and improve their learning (Wiliam, 2011, 2016). Similarly, Alamis (2010) reports that students in her study showed resistance in taking forward actions toward learning when advice was worded to them in the imperative rather than suggestive form of language. Thus, realizing such language nuances and how they may positively or negatively affect our sent messages can be a challenge for writers, feedback providers in this case (e.g., Halliday, 1985). More research is needed in this area (e.g., Thompson, 2014).

**Conceptual Framework**

In this study, figure 1 below shows how written feedback can pass via empathy (Ekman, 2003) and linguistic style (Rose & Martin, 2003, p. 254) to become formative feedback (e.g., Hyland, 2003). The figure shows that written feedback to students is more likely to be perceived as useful when it is guided by both empathy and linguistic style. To achieve compassionate empathy, which is the most influential type of empathy because it provides actions for improvement, Ekman (2003) argues that one has to start with cognitive empathy as a first prerequisite step and this is the first scenario.

**Figure 1**

**Empathic Feedback**



*Figure 1.* How written feedback passes through empath (Ekman, 2003) and linguistic style (Rose & Martin, 2003, p. 254) to become written formative feedback (e.g., Hyland, 2003).

The second scenario is to start with cognitive empathy, followed by affective empathy, and ends with compassionate empathy (Ekman, 2003). This scenario is the favorite for most students because it respects student feelings and motivates them to move forward in learning (e.g., Black & Wiliam, 2009; Brookhart, 2007, 2008; Hyland, 2003; Wiliam, 2011). Thus, to provide formative feedback that reflects empathy, professors are advised to first recognize or understand an issue that is to be fixed in student work (cognitive empathy). Then, it is suggested that professors feel with the student in the existence of such an issue (affective empathy). Finally, professors are requested to provide their students with suggested actions for improvement (compassionate empathy).

In a similar vein, professors are also advised to carefully choose their linguistic styles before providing feedback. It is generally known that writers, professors in this case, will choose their vocabulary and grammar depending on the context in hand. Different contexts require different language choices or registers (e.g., Eggins, 2004). According to Schleppegrell (2004), register is determined by field, which is defined as what writers are writing about; tenor, which refers to the relationship among writers and readers; and mode, which is how a text is organized (p. 46). Every writer applies grammatical and lexical resources to build field, tenor and mode in every utterance they make (Coffin, 2003). At a deeper level, field is expressed via patterns of ideational meanings, tenor is expressed via interpersonal meanings, and mode is expressed via textual meanings (e.g., Rose & Martin, 2003). Besides, Coffin (2003) defines ideational meanings as “internal and external reality”, interpersonal meanings refer to “interacting and building relationships”, and textual meanings refer to how we “organize information coherently” (p. 15). Additionally, appraisal meanings refer to how writers express their approval or disapproval of ideas, people, behaviors, and/or things (Martin & White, 2005). The combination

of those meanings functions as a medium or a channel of communication between participants (e.g., Martin & White, 2005; Rose & Martin, 2003). Thus, when writers, professors in this case, carefully employ the ideational, interpersonal, textual, and appraisal meanings, they will communicate their intended messages to readers, students in this case, without adding unintended negative effects (e.g., Martin & White, 2005; Rose & Martin, 2003).

Ideational, interpersonal, textual, and appraisal meanings can reflect empathy, as in Francis and Kramer-Dahl (2004). In their study, Francis and Kramer-Dahl (2004) analyzed the linguistic styles of their two participants, Dr. Sacks and Dr. Kertesz. Ideationally speaking, Dr. Sacks wrote reports describing his patient and he used, for instance, the following statement, “He was a musician of distinction”. In this example, Dr. Sacks gave his patient an “-er role”. This role shows the patient as an active agent and human being. Dr. Sacks avoided referring to his patient as “the patient”. Instead, Dr. Sacks used “Paul” and the pronoun “He” to refer to his patient. According to Francis and Kramer-Dahl (2004), this example reflects empathy in Dr. Sacks’ style of writing. However, Dr. Kertesz wrote reports describing his patient and he used, for example, the following statement, “She was considered bright by her family”. Dr. Kertesz gave his patient an “-ed-role”. This role refers to the quality of being characterized as inactive (1985: 46). This “-ed role” is near the bottom of Hasan's scale of dynamism. Francis and Kramer-Dahl (2004) claim that the second example reflects the lack of empathy in Dr. Kertesz’s style of writing where the writer refers to his patient as “the patient” or as an “object”, an It. Moreover, both of the above examples employed referential processes (see Appendix A for types of processes). However, in the second example, Dr. Kertesz tones down the positive attribution by embedding the relational process (She was ...) within the mental one (considered), which reflects the lack of empathy (Francis & Kramer-Dahl, 2004).

Interpersonally, Martin (1986) argues that interpersonal meanings of tenor include three headings: 1. Affect, which refers to attitude, 2. Status, which refers to mood, modulation, and personal references, and 3. Contact, which refers to topic and technicality. First, affect or attitudinal items can bring negative effects on the reader (Martin, 1986). Negative written feedback that contains words like poor, vague, false, no good, do this and do that, repeat, elaborate, modify, and so can be destructive if such feedback is provided to students (e.g., Black & Wiliam, 2009). This feedback could reflect no empathy.

Secondly, status can send negative effects to readers (Martin, 1986). Feedback that employs imperative language and the use of “should and must” can send negative effects to students (Alamis, 2010). This feedback demotivates students and drives them to protect their egos by working against this feedback or ignoring it (Black & Wiliam, 2009). This feedback hinders student learning (Wiliam, 2011). This could also reflect lack of empathy.

Finally, contact can lead to solidarity among participants, professors and students, in this case, if it is employed properly (Martin, 1986). For instance, feedback that contains many technical words is more likely to negatively affect solidarity among professors and students. Koh (2010) argued that students in her study did not understand the targeted standard because the terminologies related to success criteria were not explained to them. Similarly, according to Bailey and Garner (2010), many students did not understand the feedback provided to them because of their professors’ linguistic styles. Professors are advised to work according to student needs, which could reflect empathy.

In the same vein, appraisal is a part of interpersonal meta-function of language and it refers to the expressions of personal views, i.e., our approval or disapproval of things, ideas, people, and/or behaviors (e.g., Martin, 1986). Appraisal meanings can reflect empathy via its

three components of “graduation”, “attitude”, and “engagement” (e.g., Voloshinov, 1995; White, 2015). According to Martin and White (2005), graduation refers to the intensity and sharpness of the message in hand. Graduation makes a message more or less intense by the use of force, which reflects positive or negative meaning (e.g., Voloshinov, 1995). For example, a message like “John is a brat” has more intensity because of the negative force added by the use of “brat”. This is more likely to reflect low empathy. However, a message like “John is a highly-active boy” has less intensity because of the positive force added by using “highly-active” (e.g., Martin & White, 2005). This could reflect empathy.

Moreover, graduation can sharpen or blur a message via the use of focus, which can also be negative or positive (e.g., White, 2015). For example, a message like “George is a true friend” has a sharp focus added to it because of employing the word “true”, which reflects a positive meaning (e.g., Martin, 1986). This is more likely to reflect empathy. But a message like “George is a kind of friend” has a soft focus or blurring because of using “kind of”, which reflects a negative meaning (e.g., Martin, 1986). This could reflect no empathy.

Similar to graduation, attitude is used by writers via the words of judgment, appreciation, and/or emotion to express their thinking or feeling toward other people and/or things (e.g., White, 2015). Words of judgement are used by writers to positively or negatively evaluate human behaviors according to social norms (Martin, 1986). For instance, “Paul is clearly good in soccer” is a positive judgment because of using “good” and it is describing a human being, “Paul”. The sentence has also positive force because of using “clearly”. Likewise, appreciation is very similar to judgment, but it is used with non-human entities. For instance, a message like “smoking indoor is a bad habit” can reflect negative appreciation because of using “bad”, and the word “bad” is negatively loaded force. In addition, “smoking” is a non-human entity. Similar to

judgment and appreciation, words of emotion can be used to express positive or negative attitude (Martin, 1986). These words can be realized by the use of nouns, adjectives, and/or verbs that are related to mental processes, which can express emotional states for instance, nouns like “anger, fear, delight, pain”, adjectives like “happy, sad, awful, cheerful”, and verbs like “love, dislike, reject, hate”. A sentence like “Your help is highly appreciated” could express positive emotion because of using “appreciated”. The sentence may also reflect less intensity because of using the positive force “highly”. This could reflect empathy.

According to Voloshinov (1995), engagement refers to how writers affirm or distance themselves from what is written. This can be achieved via disclaimer, which refers to a writer’s disagreement with what someone else wrote like “I disagree that ...”, proclamation, where a writer takes a position and rejects other competing positions, for example, “I believe that ....”, entertainment, where writers acknowledge a range of possibilities like “This report suggests .....”, and attribution, which refers to what other writers wrote, for instance, “According to X, ....”(e.g., Martin & White, 2005; Voloshinov, 1995). All these ways can be used by writers to confirm or reject something, to anticipate responses, and/or to seek support (e.g., Voloshinov, 1995).

Textually, themes, adjuncts, references, lexical density, cohesion, emphasis, clause complex, expansion (elaborating), expansion (extending), and grammatical intricacy can play a significant role when a message is sent to a reader (e.g., Thompson, 2014). They can positively affect messages by reducing the distance among writers and readers or negatively affect them by enlarging that distance among participants (e.g., Martin, 1986). According to Francis and Kramer-Dahl (2004), the higher use of conjunction adjuncts like (as a consequence, however, thus, in fact, nevertheless, therefore) makes a text appear more “written” than a text that uses

everyday conjunctive adjuncts like (for, and, nor, but, or, yet, so). The first group of conjunction adjuncts can reflect more distance among participants, which reflects no empathy (Francis & Kramer-Dahl, 2004). Similarly, the second group of conjunctive adjuncts can reflect smaller distance among parties (Martin, 1986). Therefore, employing the second group of adjuncts in messages can reflect empathy (Francis & Kramer-Dahl, 2004).

In this study, we intend to extend the basic notions of language use and user by employing the theory of language register through its three aspects: 1) Field of discourse (and related ideational resources) represented by choice of vocabulary and grammar like the use of processes, participants, passive voice or “passivization”, nouns or “nominalisation”, and the use of circumstances, 2) Tenor of discourse (and related interpersonal resources) represented by the choice of mood (statements, commands, questions), modality (modals), personal pronouns as well as appraisal meanings of graduation, attitude, and engagement, and 3) Mode of discourse (and related textual resources) represented by cohesion, emphasis, textual adjuncts, textual themes, lexical density (number of active words like nouns, main verbs, adjectives, and adverbs), clause complex, and grammatical intricacy (number of clauses per sentence). More importantly, this study will not only focus on the numbers of occurrences for each of the above language aspects, but also on how these means are related to each other, as in Francis and Kramer-Dahl’s study (2004). Finally, the study focuses on professors’ empathy (cognitive, affective, and compassionate) because it seems to affect students who are the larger portion, decoders and interpreters of provided written feedback.

### **Research Questions**

This study aims to explore how empathy is reflected in written feedback provided to graduate students on their assignments to enhance students’ learning. Moreover, the study will

explore how that written feedback is perceived by those students. To achieve these goals, this study will try to answer two questions:

1. How is empathy reflected in written feedback provided to graduate students?
2. How is that written feedback perceived by those graduate students?

To answer these questions, two further sub-questions are posed:

- a. How do register ideational, interpersonal, and textual meanings in written feedback reflect empathy?
- b. How are those three meanings perceived by graduate students?

**Chapter Four: Methodology****Research Design**

This qualitative investigation involves sampling and analysing written feedback by professors and graduate students. The investigation aimed to explore how “empathy” was reflected in written feedback provided on graduate students’ assignments and how that feedback was perceived by the students concerned. The site represented natural classrooms, since authentic written feedback was used as in Hyland (2003). Participants were graduate students who were solicited from the Faculty of Education at a University in Ontario. The Faculty of Education was chosen partially out of convenience and more importantly because the nature and the amount of written feedback provided was easier to analyze linguistically than mathematical equations and symbols, for instance. There were no specific classes from which participants were chosen, as participation was voluntarily open to all Masters and PhD candidates to avoid potential bias. Another reason why graduate students were particularly chosen was to do with the nature of their work being deeper and more demanding than undergraduate students. Thus, graduate students should receive more in depth feedback. This research consisted of two stages: The first aspect was collecting and analysing the written feedback provided on the interviewees’ assignments. The second aspect was interviewing those participants.

The intent to investigate the above research questions using a qualitative approach conceptually draws from a desire to understand how empathy is reflected in professors’ linguistic choices and how these choices may affect the perceived usefulness of written feedback provided to graduate students. It is also an answer to a call for research by scholars such as Hattie and Timperley (2007) who suggested that “[feedback] needs to be more fully researched by qualitatively and quantitatively investigating how feedback works in the classroom.” (p. 104). In

response to Hattie and Timperley's suggestions, a constructivist paradigm is applied to this research as it is more compatible with qualitative approaches (Creswell, 2009). The present research tries to raise the participants' voices so that they explain why they may have attitudes, thoughts, or feelings toward the problem under research (Creswell, 2014). This helps the researcher to deeply understand the research problem to try to find solutions (Creswell, 2014).

### **Participants**

A total number of seven graduate students were interviewed as participants. This sample of a minimum of six students is similar in number to Hyland (2003). The following criteria were utilized in choosing the sample of students: it was necessary for participants to be graduate students, had an English copy of written feedback, were willing to share that written feedback, and were willing to be interviewed. Recruitment of participants was done by inviting former classmates of the researcher via emails. Graduate Student Association Office did not agree to share all graduate students' emails because of confidentiality. In addition, no in-person classes were conducted because of COVID 19 closure (see Appendix B for the recruitment text for students, study purpose and date, and confidentiality of participants).

### **Procedures**

#### ***Data Collection***

**Written Feedback.** Each participant was requested to sign a consent form (see Appendix C for the details of the consent form). Then, each student was requested to choose and submit any important English assignment of any size that had written feedback provided to them by their professors from any previous or current terms of study. A total of seven graduate students' assignments with professors' written feedback were collected two weeks prior to the time of interviewing. This allowed the researcher to have a comprehensive look at them and to update

the list of interview questions accordingly. To avoid redundancy and similar outcomes, and to save time and effort, only one important corrected written assignment for each selected student was chosen for analysis in this study. In case, a participant has more than one assignment to provide, the participant will be requested to choose only one assignment to share. Five of the assignments contained feedback on PhD thesis proposals, one was from a PhD thesis, and one from a mid-term paper for an MA student. Students were requested to delete the names of their professors before submitting their assignments.

**Interviewing.** Interviewing of participating students took place after the students had read all the comments on their written assignments, as in Hyland (2003). Participants were interviewed individually online, due to the COVID 19 pandemic, for about 30-45 minutes at a time of their convenience. With the consent of all participants, all interviews were audio-recorded for accuracy and for improving the reliability of the study (Creswell, 2013). Open-ended semi structured questions, focussing on collected written feedback, were used in the interviews. For example, the questions were about how the use of language made the participants feel, made them react, and helped their learning. In addition, some demographic information such as student's age, cultural background, first language, status in the MA/PhD program, and familiarity with the professor were collected (see Appendix D for interview protocols). Demographic information may provide more context for understanding why students perceive feedback the way they do. The interview questions were tested for clarity after extensive discussions between the researcher and the supervisor. Moreover, field notes were taken by the researcher during the students' interviews for accuracy. Field notes aim to record the researcher's observations while in the field as quickly as possible in a way that makes sense to the researcher (e.g., Creswell, 2013). This will work as a record that affirms what the researcher observed. It

will be compared and contrasted with the audio recordings, which will improve the reliability of the study (e.g., Creswell, 2013; Silverman, 2010).

**Data Analysis**

Collected data was analysed in two stages: 1. Written feedback data analysis, and 2. Interview data analysis. The correspondence between each of these data sources and research questions is shown in Table 1.

**Table 1**

*Research Questions and Data Sources Used to Address them.*

Research Question	Data Source to be Used
1. How is empathy reflected in written feedback provided to graduate students?	Written feedback on assignments
2. How is the written feedback perceived by graduate students?	Interviews + Written feedback on assignments

***Written Feedback***

This stage mainly addressed the first research question: 1. How is empathy reflected in written feedback provided to graduate students? Similar to the method used in Francis and Kramer-Dahl (2004), the current study analyzed the three aspects of language register in terms of attributes and occurrences: ideational meanings, which are associated with the field of discourse; interpersonal meanings, associated with tenor; and textual meanings, associated with the mode of a text (Eggins, 2004; Halliday & Matthiessen 2004; Martin, Matthiessen & Painter, 1997). According to “register” theory, the ideational, interpersonal, and textual meanings work hand in hand, so it is a violation of the theory to study some of these meanings and leave the others (e.g.,

Halliday & Matthiessen 2004). In this context, “text” refers to the written feedback for learning collected from students. Moreover, “appraisal”, which is an integral part of interpersonal meanings, was detected in terms of “graduation”, “attitude”, and “engagement”, as in Martin (1986).

I started this analysis directly after the collection of the assignments for each participating student. Professors’ written feedback for learning on interviewees’ assignments was gathered and analysed individually, as in Englander’s study (2009). I called each written feedback comment on every assignment a “feedback point”, as in Hyland (2003). I examined every student’s assignment individually for the sake of comparing and contrasting perceived effectiveness among participants. To aid with data analysis, a “theoretically justified” (Englander, 2009, p. 132) “*systemic coder*” (O’Donnell, 2023) was downloaded from the site [www.wagsoft.com](http://www.wagsoft.com). This systemic coder helps researcher(s) to carefully examine every feedback point on each assignment by looking for ideational, interpersonal, and textual meanings in terms of occurrences. Prior to using the coder, I prepared the texts in hand and I built the layers, which will guide the process. I used seven texts in the current study. I analysed the written feedback in two stages: building layers and annotation.

**Building Layers.** This process starts by pressing on “layers”. Then, the “add a layer” option is chosen. The coder has an option of using a built-in automatic layer, which is usually general. In this study, I manually established six layers to meet the study specifics (see Appendix E for An Overview of the Six Layers Built for This Study).

Building the layers is a compulsory process in the systemic coder. I built six layers (ideational meanings, interpersonal meanings, textual meanings, clauses, appraisal, and empathy) in the corpus tool to find the attributes and occurrences of those meanings. The information in

each layer is fully based on the published literature on systemic functional linguistics and not on the personal preferences of the researcher. The first layer, which is the ideational meanings layer, shows five language aspects and their sub-aspects. These aspects are process, nominalization, passivization, participants and circumstances. Each language aspect has its sub-aspects. For instance, process has six sub-aspects of material, mental, verbal, behavioural, existential, and relational process (see Appendix F for an overview of ideational meanings 1 & 2). Similarly, the second layer, which is the interpersonal meanings, has its own aspects of mood, modality, and personal references. Each of these aspects has sub-aspects. For example, mood is divided into indicative or imperative. Indicative is divided into declarative or interrogative (see Appendix G for an overview of interpersonal meanings, aspects, and sub-aspects).

Similar to ideational and interpersonal meanings, the third layer, which is the textual meanings, has six language aspects. They are textual themes, lexical density, textual adjuncts, cohesion and emphasis. Each of these aspects has its sub-aspects. For instance, textual adjuncts are divided into continuity, conjunction, and structural (see Appendix H for an overview of textual meanings, aspects, and sub-aspects). Appendix I presents the fourth layer, which is an overview of the clauses layer. It is established to figure out the attributes and occurrences of those clauses. And more importantly, the layer helps the researcher(s) to find out grammatical intricacy and the types of relationships between clauses in the clause complex as in Halliday and Matthiessen (2004, p. 373). Clauses, clause complex, and grammatical intricacy are integral parts of textual meanings, which deal with how a message is organized (e.g., Halliday, 2008).

I built the fifth layer to find out appraisal as in Voloshinov (1995). Appraisal is part of interpersonal meanings, which deal with the relationship among participants, professors and students in this case (Martin & White, 2005). Appraisal has three language aspects: “graduation”,

“attitude”, and “engagement”. Each of these aspects has its sub-aspects. For example, graduation has two sub-aspects of force, which can be positive or negative and focus, which can also be positive or negative. Thus, appraisal can play a significant role in defining the relationship among professors and students (see Appendix J for an overview of appraisal Meanings).

I established the sixth layer to figure out the types of empathy as in Ekman (2003). This layer has five options. They are “no empathy”, “cognitive empathy”, “affective empathy”, “cognitive and affective empathy”, and “compassionate empathy” (see Appendix K for An Overview of Empathy Layer). Cognitive empathy, as discussed in previous chapters, deals with student needs, affective empathy deals with student feelings, and compassionate empathy deals with providing actions or solutions for improvement (Ekman, 2003).

I did not add any other options to this layer rather than the five ones mentioned above. The reason was that the option of compassionate empathy had cognitive empathy built in as a default. This meant that the option of cognitive and compassionate empathy was not needed. Moreover, affective empathy was not a compulsory option to achieve compassionate empathy as it was suggested in the conceptual framework. This meant that the option of affective and compassionate was not needed either.

**Annotation.** The process of annotation started after building all the above-mentioned layers. Annotation is practically the process of analysis and it is a very laborious and time-consuming process. I carefully examined each feedback point, which could be a word, phrase, or clause in each feedback sample. Then, I made the decision on where to place each of these highlighted feedback points whether they were words, phrases, or clauses in a given layer. I analysed each participant's feedback sample in three steps.

*Step 1.* Ideationally, annotation has five phases: Firstly, I examined the first feedback sample and I listed all verbs. I highlighted each verb and categorized it to which type of process it belongs (The six types of process previously mentioned). Secondly, I examined each noun in the feedback sample under nominalization to decide where it belongs according to Martin's cline of nominalization (1986, p. 242; see Appendix L for Martin's Cline of Nominalization). Thirdly, I read the feedback sample to identify the participants used in that feedback, which in this case refer to who or what is involved in the process happening in a clause. Participants are typically realised by nouns phrases, for instance, "the man, John, a new book" (e.g., Eggins, 2004). I found all participants used in the feedback sample and I categorized them under human participants, non-human participants, or no-participants. I categorized all human participants under (1<sup>st</sup> person, 2<sup>nd</sup>. Person, 3<sup>rd</sup> person ..). Fourthly, I identified and examined each active and passive clause throughout the first feedback sample. Lastly, I read the feedback sample for "circumstance". All circumstances of time, place, manner, cause, accompaniment, matter, role, contingency, and angle were identified and highlighted. By doing all the above five phases, I completed ideational meanings annotation for the first feedback sample. I repeated the same process with the six feedback samples.

Interpersonally, annotation has three phases: Firstly, I read the first feedback sample for mood. I categorised statements into indicative or imperative. In turn, I categorised indicative statements into declarative or interrogative. Then, I categorised interrogative statements into yes-no questions, wh-questions, and/or not full question. In turn, I categorised imperative statements into inclusive (let's) or exclusive. Secondly, I searched the feedback sample for modality, which I categorised into modalization and modulation. Modalization includes probability or usuality. Modulation, on the other hand, includes obligation or inclination. Finally, I examined the

feedback sample for personal references, which I categorised into personal pronouns or vocatives. I categorised vocatives, in turn, into 2nd person, 3rd person, or common names. By doing all the above three phases, I completed interpersonal meanings annotation for the first feedback sample. I repeated this same process with the other six samples.

Textually, annotation has five phases: Firstly, I read the first feedback sample and I highlighted and categorised each textual theme into topical, interpersonal, or textual theme. Secondly, I searched the feedback sample for every noun, verb, adjective, and adverb. I highlighted all these words. Thirdly, I read the feedback sample for textual adjuncts, which I categorized into continuity, conjunction, or structural. Fourthly, I read the feedback sample for cohesion. I highlighted each word, phrase, or clause that had a completed and related message as “yes” cohesion. Then, I highlighted each word, phrase, or clause that had incomplete or unrelated message as “no” cohesion. Lastly, I searched the feedback sample for emphasis. Emphasis includes markedness, repetition, use of cleft, highlighting, circles, arrows, deleted words, capital letters, or the use of emphatic devices such as “not only ...but also”. By doing all the above five phases, I completed textual meanings annotation for the first feedback sample. I did this same process with each sample.

Clause-wise, annotation has three phases. Firstly, I figured out the language aspect of ranking clauses. A ranking clause is any clause that has a full message (Halliday, 2008). I highlighted all ranking clauses. Down-ranking clauses refer to words or phrases that have incomplete messages (e.g., Halliday, 2008). I ignored these down-ranking clauses because they did not convey meaningful messages. Secondly, I found the language aspect of taxis and I categorised them into parataxis or hypo-taxis (Halliday, 2008). Lastly, I found the type of relationship among clauses via logico-semantic relationship. According to Halliday (2008),

logico-semantic relationship refers to natural relationship between clauses in the use of language and how clauses that are related build meaning. It is a vital part of textual meanings and it provides more details about what is happening in a clause (e.g., Halliday, 2008). I repeated this process for each feedback samples.

Logic-semantic relationship is divided into expansion and projection. On the one hand, expansion deals with elaboration, extension, and enhancement. Elaboration refers to providing an example or repeating what is said using other words. Here is an example on elaboration, “I love you; I am happy to die for you”. The first clause “I love you” has similar meaning to the second clause “I am happy to die for you”. Likewise, extension refers to addition or variation. Here is an example on variation, “She teaches Math, but she loves Statistics”. Here is another example on addition, “Bob loves Math, and he teaches Math”. Furthermore, enhancement refers to providing more details about the issue in hand by the use of circumstances like time, place, manner, cause, condition, or contrast. Here is an example of enhancement using place, “I will go wherever you go”. The second clause “wherever you go” provides more details to the first clause “I will go”. Here is another example using cause, “I come here because I want to make you happy”. The second clause “because I want to make you happy” enhances the first clause by providing extra details (e.g., Halliday, 2008). I highlighted expansion in each feedback sample.

On the other hand, projection deals with verbal and locution. Verbal refers to what has been said, for example, “John said, he would leave the city”. The second clause “he would leave the city” provides information about what “John said,...”. Moreover, locution refers to ideas, for example, “Steve thought the exam was difficult”. The second clause “the exam was difficult” adds extra information to what “Steve thought”. I found projection in each feedback sample.

Next, I calculated grammatical intricacy for each assignment as well as for the whole sample in order to compare and contrast each feedback sample grammatical intricacy with the whole sample grammatical intricacy. In this study, the systemic coder did not help in finding the grammatical intricacy. As a result, I entered the frequency of simplex clauses and the frequency of complex clauses for the whole sample as well as for each file into Microsoft Excel. This method provides researcher(s) with the option of studying each participant individually in an inter-case study. In addition, it provides researcher(s) with another option that is the possibility of comparing and contrasting all cases together in an intra-case study (Creswell, 2013). Then, I found grammatical intricacy by dividing the frequency of simplex clauses by the frequency of complex clauses, as in Halliday (2008).

*Step 2.* This second step of analysis is at a deeper level. It is the “appraisal” level, as in Voloshinov (1995). This layer of annotation has three phases: Firstly, the language aspect of “graduation” includes the sub-aspects of “force” and “focus”. Force can be either positive or negative. Similarly, focus can also be positive or negative. Secondly, “attitude” includes three sub-aspects of “judgment”, “appreciation”, and “emotion”. Similar to force and focus, these sub-aspects can be positive or negative. Lastly, language aspect of “engagement” includes four sub-aspects: “disclaim”, “proclamation”, “entertainment”, and “attribution”.

For example, take a feedback point as “way too repetitive”. Graduation-wise, the word “repetitive” shows negative force. The two words of “way” and “too” add negative focus to the negative force. Attitude-wise, this is negative appreciation, as in Martin (1986). And engagement-wise, this is disclaiming because the feedback writer did not agree with what was written. For another example, in a feedback point like “Feel free to add your own resources”, Graduation-wise, the word “Feel” shows negative force because it is imperative. The two words

of “free” and “to add” are positive focus that can cancel the negative force. Attitude-wise, this is positive appreciation, as in Martin (1986). And engagement-wise, this is proclamation because the feedback writer agrees that the student can add resources. I annotated each feedback point in each of the seven feedback samples for the three language aspects of appraisal.

*Step 3.* Analysis of this step started after the completion of steps one and two. Based on the definitions by Ekman (2003) of the three types of empathy, I built the empathy layer. I completed annotation for each message. I ignored incomplete or unrelated messages. I categorised under no empathy any message that failed to identify an issue to be improved, an issue that was accepted and could be repeated in the future, any positive or negative affect, and a solution for improvement. I categorised under cognitive empathy messages which exactly identified an issue to be fixed without suggesting actions or solutions. I grouped under affective empathy messages which implied positive feelings towards the student or their work. Regardless of whether or not they identified an issue to be modified or suggested solutions. Any words or clauses with negative focus, negative force, negative judgment, negative appreciation, or negative emotion were violating the definition of affective empathy, as in Ekman (2003). I classified those word or clauses under the category of “No-Empathy”. I classified under compassionate empathy messages that identified an issue or a problem to be modified and suggested a solution regardless of negative affect, as in Ekman (2003). This was the first scenario where both cognitive and compassionate empathy were combined. Moreover, I categorised under compassionate empathy messages that identified an issue or a problem and suggested a solution with positive affect. The second scenario was where the messages combined cognitive empathy, affective empathy with its power of positive emotions on improving learning (Carless & Winstone, 2020; Holmes, 2023), and compassionate empathy.

For example, take a feedback point like “It seems more might need to be said in this paragraph”. The words “... more to be said..” implies the existence of a problem somewhere. However, these words are open-ended and they could have many interpretations such as more examples, more explanations of existing ideas, more new ideas, more analysis, more synthesis or more references. This feedback point does not identify the exact problem. It also fails to suggest any specific actions for improvement. According to Ekman (2003), failing to identify the exact problem reflects no cognitive empathy. In the same above example, if it starts with positive encouragement, like “I am confident that you can say more in this paragraph” and it ends with a smiley face, this addition can only reflect affective empathy, but again the problem is not identified because the word “more” is open-ended. The sentence should indicate “more of what” and more importantly “the why” in order to be categorised under cognitive empathy.

I completed all the above three steps. The current corpus tool provided the frequency and percentage of use for each language aspect. However, it did not provide the Mean, the Difference (D), and the Standard Deviation (SD). So, I manually moved all results to Microsoft Excel, and I calculated the Mean, the D, and the SD for each language aspect and sub-aspect. Usage frequency, usage percentage, Mean, the D, and the SD provided basic descriptive statistics about the whole sample for the sake of comparing and contrasting.

By calculating the individual Means for each previously mentioned language aspect of (ideational meanings 1, interpersonal meanings 1, textual meanings 1, appraisal meanings 1), one can figure out empathy that is more likely to be reflected in the language of written messages, written feedback points in this case, provided. As previously mentioned, ideational meanings 1 referred to material processes, mental processes, verbal processes, nominalised imperfective clauses, verbal classifiers, derived verbal nouns, non-human participants, passive voice, and

circumstances; interpersonal meanings 1 referred to declarative statements, yes/no questions, wh-questions, modalization (usuality), modulation (inclination) and vocatives (second person); textual meanings 1 referred to interpersonal Theme, textual Theme, lexical density, continuity, conjunction, cohesion and emphasis, clause complex, expansion (elaborating) and expansion (extending); and appraisal meanings 1 referred to positive force, positive focus, positive judgment, positive appreciation, positive emotion, proclamation, entertainment and attribution. The high use of these language features in written feedback for learning provided to students are more likely to be perceived as reflecting empathy (e.g., Eggins, 2004; Halliday, 2008; Hasan, 1985; Martin, 1986; Thompson, 2004).

In the same vein, by calculating the individual Means for each previously mentioned language aspect of (ideational meanings 2, interpersonal meanings 2, textual meanings 2, appraisal meanings 2), one could figure out how no empathy is more likely to be reflected in the language of written messages, written feedback points in this case, provided. As discussed earlier, ideational meanings 2 referred to behavioural processes, existential processes, relational processes, underived verbal nouns, nominalised adjectives, abstractions, human participants, missing participants and active voice; interpersonal meanings 2 referred to imperative statements, not-full questions, modalization (probability), modulation (obligation), personal pronouns and vocatives (third person); textual meanings 2 referred to topical Theme, structural textual adjuncts, no cohesion, ranking clauses and grammatical intricacy; and appraisal meanings 2 referred to negative force, negative focus, negative judgment, negative appreciation, negative emotion and disclaim. The high use of these linguistic meanings in the written feedback is more likely to be perceived as reflecting no empathy (e.g., Hasan, 1985; Martin, 1986; Thompson, 2014).

To facilitate comparing and contrasting Assignment Mean (AM) with Sample Mean (SM), the D and the SD were manually found by the use of Microsoft Excel. D can measure the difference between AM values and SM values. If D is positive, it means that the use of ideational meanings 1 in the assignment is larger than its use in the sample. Therefore, according to the theory of functional linguistics of how empathy is conveyed through language functions, that assignment is predicted to reflect empathy more than the sample. Likewise, if D is negative, this means that the use of ideational meanings 1 in the assignment is smaller than its use in the sample. Therefore, it is hypothesized that the assignment reflects empathy less than the sample. Moreover, SD is used to figure out how far AM is from SM, i.e.; high SD shows that data are more spread, and low SD tells us that data are more clustered around the Mean. The same talk applies to interpersonal meanings 1, textual meanings 1, appraisal 1 and compassionate empathy. To be differentiated, I coloured these meanings in blue.

Similarly, this same process was individually applied to ideational meanings 2, interpersonal meanings 2, textual meanings 2, appraisal meanings 2 and other levels of empathy. If D is positive, it means that the use of ideational meanings 2 in the assignment is larger than its use in the sample. Therefore, this is valid evidence that the assignment could reflect no empathy more than the sample could do. Besides, if D is negative, it means that the use of ideational meanings 2 in the assignment is smaller than its use in the sample. Therefore; this is convincing evidence that the assignment may reflect no empathy less than the sample could do. This applies to interpersonal meanings 2, textual meanings 2, appraisal meanings 2 and other levels of empathy. To be distinguished, I coloured these meanings in orange.

Findings of the written feedback that I analysed by the systemic coder (O'Donnell, 2023) are presented as follows: Firstly, results of written feedback for the whole sample. This

presentation of findings for the whole sample is important for at least two reasons: 1. It is easier for the reader to see the big picture and follow the results of the whole sample before getting into the specific details of each participant. 2. More importantly, this presentation works as a benchmark with which each participant assignment is compared and contrasted for empathy.

Secondly, results of written feedback that I analysed for each assignment were presented. This presentation of each assignment is important as it provides the reader with specific frequencies of every ideational, interpersonal, and textual language aspect and sub-aspect in each assignment for later comparison with frequencies from the whole sample. The analysis of the written feedback explained above supported and in turn explained the interview data. These two data sources worked hand in hand to answer the second research question.

### *Interview*

This stage addressed the second research question: 2. How is the provided written feedback perceived by graduate students? At this stage, audio-recordings of the interviews were added to the field notes and they were verbatim transcribed and coded by the use of Software program "<https://otter.ai>". The coding is identical to the three phases, first cycle coding, memo writing, and second-cycle coding, suggested by Saldana (2013) for coding qualitative data.

**First-Cycle Coding.** After verbatim transcribing of the participants' interview data, I read these transcripts many times. Additionally, I listened to the audio recordings repeatedly for the insights they may provide that reading transcripts may not. This was a memory refresher of what was covered in the interviews and it helped the researcher reflect on the collected data. In this first-cycle coding process, as described by Saldana (2013), I used descriptive and in-vivo coding techniques. Saldana (2013) argues that using descriptive and in-vivo codes is appropriate for all forms of qualitative analysis, but can be particularly useful for the novice qualitative

researcher. Descriptive codes summarize in a word or short phrase the basic topic of a passage. In-vivo codes are short phrases from the actual language found in the passage (Saldana, 2013). These descriptive and in-vivo codes were used as this process honoured both the researcher's perception and the voice(s) of participant(s). Saldana (2013, p. 94) notes that "sometimes a participant says it best; sometimes a researcher does". Descriptive and in-vivo codes will deconstruct the collected data into discrete parts that could be examined to look for similarities, differences, and to begin considering preliminary categories and themes. In the case that some data ended up not being coded, the researcher read again until all the collected data was coded.

**Memo-Writing.** It is encouraged that qualitative researchers engage in the reflexive process of memo-writing throughout the data analysis process. I used memo-writing as a tool to reflect on the first-cycle coding process and to begin thinking about the second-cycle coding process. According to Saldana (2013), memo-writing is used for researchers to document and reflect on coding choices, emerging patterns, the process of inquiry, as well as to pose any questions that the researcher may have during the process of analysis. Memo-writing helps researchers realise their own assumptions and try to control them. It also helps researchers to question their coding practices of the actual data that is transcribed, and to consider the emerging categories or themes. Finally, it encourages researchers to have a conversation with themselves about the data. This practice of memo writing will allow the smooth transitioning of the researcher(s) from the first-cycle coding process to the second-cycle coding process.

**Second-Cycle Coding.** The second-cycle coding was important as it allowed the researcher to analyze and re-analyze the coded data in the first-cycle coding. It involved reorganizing the data to develop smaller number of coded data and select broader categories and themes. I performed the second-cycle coding separately for each participant and then across all

participants to look for themes. This process started by reorganizing the coded data into categories. Then, the researcher started looking within and between these categories to discover any emerging themes. This involved re-coding the data under the specific categories and then comparing and contrasting the codes within the categories to search for themes. The emerging themes transcended the emerging categories and served to address the second research question in hand.

### **Results Integration**

In this study, guided by the research questions, I analyzed all collected feedback points from all assignments. The aim was to identify how each of the three language aspects (i.e., field, tenor, mode) of the written feedback provided to graduate students, corresponds with perceived empathy. I compared results obtained from interviewing the owner of an assignment with results obtained from the systemic coder (O'Donnell, 2023) of the feedback points on that same assignment. This integration provided us with an answer to when the language of written feedback for learning is more likely to be perceived as reflecting empathy. It could also justify participants' answers on perceiving empathy or no empathy on their assignments. Two questions were answered to achieve these goals,:

1. What are the benefits of integrating both the interviewing method with the systemic coder (O'Donnell, 2023) method in this study?
2. When is feedback perceived as reflecting empathy?

To answer question one, I manually calculated the Mean of (Id. M. 1) for each assignment by the use of Microsoft Excel. For example, in this study, (Id. M. 1) features included the use of material processes, mental processes, verbal processes, nominalised imperfective clauses, verbal classifiers, derived verbal nouns, non-human participants, passive

voice, and circumstances. Then, I compared and contrasted each AM for these features with the SM for these same features. I repeated this process individually for each of ideational meanings 2, interpersonal meanings 1. Interpersonal meanings 2, textual meanings 1, textual meanings 2, appraisal meanings 1, appraisal meanings 2, compassionate empathy level, and other levels of empathy.

### ***Ideational Meanings***

I categorized the expression of ideational meanings as follows: 1. Ideational meanings 1 (Id. M. 1). These features, mentioned above, help the provided written feedback to be perceived as reflecting empathy (e.g., Halliday, 2008; Hasan, 1985; Martin, 1986). Thus, for empathy, the use of Id. M. 1 is recommended to be increased. 2. Ideational meanings 2 (Id. M. 2). These features do not help the provided written feedback to be perceived as reflecting empathy (e.g., Halliday, 2008; Hasan; 1985; Martin, 1986). In this study, these features included behavioural processes, existential processes, relational processes, underived verbal nouns, nominalised adjectives, abstractions, human participants, missing participants and active voice. For empathy, the use of Id. M. 2 is suggested to be decreased (e.g., Halliday, 2008; Hasan, 1985; Martin, 1986).

### ***Interpersonal Meanings***

I categorized the expression of interpersonal meanings as follows: 1. Interpersonal meanings 1 (Int. M. 1). These aspects help the provided written messages, written feedback in this case, to be perceived as reflecting empathy (e.g., Francis & Kramer-Dahl, 2004; Hasan, 1985; Martin, 1986; Martin & White, 2005). In this study, these aspects included the use of declarative statements, yes/no questions, wh-questions, modalization (usuality), modulation (inclination) and vocatives (second person). When these aspects are highly used more in the

written text, written feedback in this case, it would reflect empathy (Martin, 1986). 2. Interpersonal meanings 2 (Int. M. 2). These aspects do not help the provided written feedback to be perceived as reflecting empathy (e.g., Francis & Kramer-Dahl, 2004; Hasan, 1985; Martin, 1986; Martin & White, 2005). In this study, these aspects included the use of imperative statements, not-full questions, modalization (probability), modulation (obligation), personal pronouns and vocatives (third person). For empathy, the use of these aspects is suggested to be decreased (Martin, 1986).

### ***Textual Meanings***

I categorized the expression of textual meanings as follows: 1. Textual meanings 1 (Text. M. 1). These features help the provided written messages, written feedback in this case, to be perceived as reflecting empathy (e.g., Francis & Kramer-Dahl, 2004; Hasan, 1985; Martin, 1986). In this study, these features included the use of interpersonal Theme, textual Theme, lexical density, continuity, conjunction, cohesion and emphasis, clause complex, expansion (elaborating) and expansion (extending). These language aspects are textual meanings 1, and their numbers are suggested to be increased. 2. Textual meanings 2 (Text. M. 2). In this study, these features included the use of topical Theme, structural textual adjuncts, no cohesion, ranking clauses and grammatical intricacy. For empathy, the use of Text. M. 2 is suggested to be decreased (e.g., Francis & Kramer-Dahl, 2004; Hasan, 1985; Martin, 1986).

### ***Appraisal Meanings***

As previously mentioned, appraisal is a part of interpersonal meta-function of language and it refers to the expressions of personal views (e.g., Martin, 1986; Martin & White, 2005; Voloshinov, 1995; White, 2015). I analyzed them separately from the interpersonal meanings because I included them to step two, which was a deeper stage, in the analysis process. I

categorized the expression of appraisal meanings as follows: 1. Appraisal meanings 1 (App. M. 1). These features help the provided written messages, written feedback points in this case, to be perceived as reflecting empathy (e.g., Francis & Kramer-Dahl, 2004; Hasan, 1985; Martin, 1986; Martin & White, 2005). In this study, these features included the use of positive force, positive focus, positive judgment, positive appreciation, positive emotion, proclamation, entertainment and attribution. They are suggested to be increased in use, which could reflect empathy (e.g., Martin & White, 2005). 2. Appraisal meanings 2 (App. M. 2). These aspects do not help the provided written messages, written feedback points in this case, to be perceived as reflecting empathy e.g., Francis & Kramer-Dahl, 2004; Hasan, 1985; Martin, 1986; Martin & White, 2005). In this study, these features included the use of negative force, negative focus, negative judgment, negative appreciation, negative emotion and disclaim. The high use of these meanings could reflect no empathy (e.g., Martin & White, 2005).

### ***Empathy Levels***

I referred to the level of compassionate empathy as Comp. Emp. and this level is advised to be increased as it is the highest and most required level of empathy (e.g., Ekman, 2003). In turn, I referred to the other levels of “no empathy”, “cognitive empathy”, “affective empathy”, and “cognitive and affective empathy” as other levels of empathy (O.L.E.). These levels are suggested to be decreased (e.g., Ekman, 2003).

The current study applied the systemic coder (O'Donnell, 2023) with systemic functional linguistics, as in Englander (2009). I applied the coder on data to study the three language aspects of field, tenor, and mode. The results integration from the coder helped explain and justify each participant's perception of empathy, which was reflected from the feedback that they received by their professors on their assignments.

**Researcher Positionality and Reliability**

To evaluate reliability and transparency of this research, I started my initial analysis of the written feedback points about two weeks before conducting the interviews. All analysed different linguistic features like types of verbs, types of participants, types of nouns, types of clauses, positive and negative words and their functions were analysed straightforwardly and smoothly. However, I spent much time on deciding what to be categorised under “Yes Cohesion” or “No Cohesion” categories because these two categories could have different understandings depending on participants’ understanding of the context in hand. So, I categorised under “Yes Cohesion” every word, phrase, or clause that explained its function in relation to the whole text in hand. Similarly, I categorised under “No Cohesion” every word, phrase, or clause that did not explain its function in relation to the whole text in hand. I made these decisions on cohesion based not only on my judgment as a researcher, but also and more importantly, on the basis of being checked with the participants.

I checked my results on issues related to “Yes Cohesion” or “No Cohesion” with each of the seven participants and they all agreed on them. For example, I marked the circles, arrows, and the highlights of different colours found in May’s and Maria’s written feedback under “No Cohesion” category because they did not explain any clear idea or how they were related to the texts in hand. After that, I individually checked with the participants who had these issues, Mary and Maria in this case, if they understood the functions of these circles, arrows, and the highlights of different colours used in their feedback. They both confirmed that they did not understand the functions of these circles, arrows, and highlights or how they were related to their assignments.

For another example, I marked phrases like “awkward phrasing” under the category of “No Cohesion” because they did not explain why a specific phrasing needed to be modified. Then, I checked with the participant who had these phrases, Laura in this case, and asked her whether she understood what was meant by the phrase “awkward phrasing”. She reported that she did not understand what the phrase meant or why there was a problem. For a final example, I categorised words like “good” under the category of “No Cohesion” because they did not explain why the issue in hand was good or how could the student repeat it in the future. Then, I checked with the participants who had these comments, Laura and Cathy in this case. Laura said that she did not understand what was the word “good” referring to, for instance, it maybe referred to an idea, a paragraph or an example. Moreover, Laura said she did not understand the “why”. Likewise, Cathy stated that she did not know what the word “good” referred to, but she said that she assumed that the paragraph she wrote met her professor’s standards for good writing. She added that she was not familiar with those standards.

Moreover, I asked the participants if they wanted to see all other coding decisions I made or if they would like to look at the final results, but all participants were satisfied and agreed that they did not have any further desire to check my coding decisions or the final results. Thus, I employed my previous knowledge in SFL as I successfully completed two Masters degrees using SFL which reflects my understanding to this field.

Lastly, as an insider and a university student, I was on the "receiving end" of years of diverse forms of feedback from professors, and as revealed in the interviews conducted with my graduate student informants, I had a keen understanding of the different cognitive, affective, and compassionate reactions of university-level recipients to the feedback for learning they receive from their professors.

## Chapter Five: Results

### A. Written Feedback (Quantitative Results)

This study aims to explore how empathy is reflected in written feedback provided to graduate students on their assignments to enhance students' learning. Moreover, it explores how that written feedback was perceived by those students. The study was framed by two research questions on student perceptions of written feedback provided by professors on student assignments and how empathy is reflected in that feedback. To achieve these goals, this study answers two questions:

1. How is empathy reflected in written feedback provided to graduate students?
2. How is the written feedback perceived by graduate students?

To answer these questions, two sub-questions were considered:

- a. How do ideational, interpersonal, and textual meanings in written feedback reflect empathy?
- b. How are those three meanings perceived by graduate students?

This chapter offers information about the interviewed participants, followed by data that correlate with each research question. Written feedback data, which are mainly related to the first research question, are shared first. Results on written feedback data are presented relative to each participant and the overall sample. The interview data, which mainly relates to the second research question, is presented. Lastly, data integration for both research questions is shared.

### Participants

All participants signed their consent forms and started sharing their information. They were given pseudonyms to protect their identities and their personal information was shredded once data was analyzed. They were completely free to choose the feedback to be submitted. Participants were numbered chronologically based on the order they submitted their material.

Table 2 presents the participants’ self-identified gender, educational level, cultural identity, and familiarity with their professor. All participants were Canadians and study at the same university.

**Table 2**

*Interviewed Participants Based on their Self-Identified Gender, Educational Level, Cultural Identity and Familiarity with their Professors.*

Participants’ Pseudonyms	Gender	Level of Education	Cultural Identity	Familiarity with their professors
Mary	Female	MA	Asian-Indian	Unfamiliar
Jane	Female	PhD	Asian-Iranian	Familiar
Mark	Male	PhD	Asian- Iranian	Familiar
Emily	Female	PhD	White Canadian	Unfamiliar
Laura	Female	PhD	Latino	Familiar
Maria	Female	PhD	East Mediterranean- Greek	Unfamiliar
Cathy	Female	PhD	White Canadian	Familiar

*Note 1: Unfamiliar refers to the fact that the student did not have any previous courses, nor contact through thesis committees or supervision, with the professor.*

*Note 2: This is the wording that participants themselves used to describe their cultural identity.*

**Quantitative Data**

The written material analyzed in this section was submitted by the participants. It represented an important piece of work for which they had received formative feedback intended

to enrich their learning, for example, an exam, a proposal, a thesis, that had professors’ written feedback on it. The collected material consisted of five PhD proposals, a Mid-term exam, and a doctoral thesis as shown in Table 3.

**Table 3**

*Collected and Analyzed Material for the Whole Sample*

Participants	Work on which Written Feedback was Received
Mary	Mid-term Exam in M.A. Program
Jane	PhD Thesis Proposal
Mark	PhD Thesis Proposal
Emily	PhD Thesis
Laura	PhD Thesis Proposal
Maria	PhD Thesis Proposal
Cathy	PhD Thesis Proposal

*Ideational, Interpersonal, Textual Meanings, Appraisal and Empathy for the Sample*

Based on the research questions, a scheme was developed by the use of O’Donnell’s (2023) systemic coder. A total number of 214 feedback points were coded, on a dichotomous or a categorical scale, one by one. The purpose was to find whether each point has the following ideational meanings: processes (material, mental, verbal, behavioral, relational, or existential), participants (human or non-human), passivization (active or passive voice), nominalization and circumstances (time, place, manner, cause, matter, accompaniment, role, contingency, or angle).

The same process was repeated with each feedback point to check for the following interpersonal meanings: Mood (indicative or imperative), modality (Modulation or modalization), and personal references (pronouns and vocatives). Similar to ideational and interpersonal inputs, each point was checked for the following textual meanings: textual themes (topical, interpersonal, or textual), lexical density (nouns, verbs, adjectives, or adverbs), textual adjuncts (continuity, conjunction, or structural), cohesion and emphasis (markedness, repetition, clefts, highlighting, circles, arrows, deleted words, capital letters, and/or the use of “not only ...but also”).

Similarly, the frequency of clause simplex and the frequency of clause complex were found. Then, each feedback point was coded to find logico-semantic relationships, which deal with projection (idea or locution) and expansion, (elaborating, extending, or enhancing). After that, coding every feedback point for appraisal was done to find graduation (force and/or focus); attitude (judgment, appreciation, and/or emotion) and engagement (disclaim proclamation, entertainment, or attribution). Lastly, every feedback point was coded to find the three types of empathy (cognitive, affective, or compassionate).

**Ideational Meanings.** In this study, ideational meanings included processes, participants, passivization, nominalization, and circumstances. Table 4 shows the processes used in the whole sample, their usage frequencies, their usage percentages, and their Means. On the one hand, material process and mental process were only used 55 and 61 times respectively. Their usage percentages and Means were relatively low. Moreover, verbal process was used 45 times of which verbal projection was used only 13 times, which was also relatively low (see Table 5).

On the other hand, Table 4 also shows that behavioural process and relational process were used 115 and 95 times respectively. They had relatively high usage percentage and Means.

**Table 4**

*The Mean and Percentage for Processes in the Sample*

<b>PROCESS-TYPE</b>	<b>N</b>	<b>%</b>	<b>Sample Mean</b>
material	55	14.4	7.9
mental	61	15.9	8.7
verbal	45	11.7	6.4
behavioural	115	30.0	16.4
existential	12	3.1	1.7
relational	95	24.8	13.6
<b>TOTAL</b>	<b>383</b>	<b>100%</b>	<b>54.7</b>

**Table 5**

*Verbal Process and Projection for the Sample*

<b>VERBAL-TYPE</b>	<b>N</b>	<b>%</b>	<b>Sample Mean</b>
yes-verbal-projection	13	28.9	1.9
no-verbal-projection	32	71.1	4.6
<b>TOTAL</b>	<b>45</b>	<b>100%</b>	<b>6.4</b>

Additionally, out of the relational processes used, 88 times were attributive relational process, which had high percentage usage and high Mean, and only 7 times were identifying relational process which had low percentage usage and low Mean (see Table 6, below).

**Table 6**

*Relational Process Types for the Sample*

<b>RELATIONAL-TYPE</b>	<b>N</b>	<b>%</b>	<b>Sample Mean</b>
attributive	88	92.6	12.6
identifying	7	7.4	1.0
<b>TOTAL</b>	<b>95</b>	<b>100%</b>	<b>13.6</b>

Nominalization could reflect how active or passive the language is employed in a given text. Nominalization was used 581 times in the whole sample. The nominalised imperfective clauses (ing) were used 46 times with a relatively low usage percentage and Mean. Similarly,

verbal classifiers were used only 10 times with a relatively low usage percentage and Mean. Likewise, derived verbal nouns were used 121 times and had a relatively low usage percentage and Mean (see Table 7 below).

In the same vein, Table 7 shows that underived verbal nouns had the highest use in the sample. They were used 211 times with a relatively high usage percentage and Mean. Likewise, abstractions had the second highest use in the sample with a relatively high usage percentage and Mean.

**Table 7**

*Nominalization in the Sample*

<b>NOMINALIZATION</b>	<b>N</b>	<b>%</b>	<b>Sample Mean</b>
nominalised-imperfective-clauses-(ing)	46	7.9	6.6
verbal-classifiers	10	1.7	1.4
derived-verbal-nouns	121	20.8	17.3
underived-verbal-nouns	211	36.3	30.1
nominalised-adjectives	29	5.0	4.1
abstractions	164	28.2	23.4
<b>TOTAL</b>	<b>581</b>	<b>100%</b>	<b>83.0</b>

Table 8 shows that human participants were used 121 times with a relatively high usage percentage and Mean.

**Table 8**

*Participant Type in the Sample*

<b>PARTICIPANTS-TYPE</b>	<b>N</b>	<b>%</b>	<b>Sample Mean</b>
human	121	36.1	17.3
non-human	126	37.6	18.0
missing-participant	88	26.3	12.6
<b>TOTAL</b>	<b>335</b>	<b>100%</b>	<b>47.9</b>

Moreover, non-human participants were used 126 times with a relatively low usage percentage and Mean.

Table 8 also presents the missing participant group, in which participants were neither human nor non-human. Participants were missing for 88 times with a relatively low usage percentage and Mean.

In employing human participants in this sample, the focus was on the use of “you”. It had the highest use in the sample with a relatively high usage percentage and Mean (see Table 9).

**Table 9**

*Human Participants Used in the Sample*

HUMAN	N	%	Sample Mean
i	27	22.3	3.9
you	42	34.7	6.0
we	14	11.6	2.0
he-or-she	9	7.4	1.3
other	29	24.0	4.1
TOTAL	121	100%	17.3

Similarly, Table 10 shows that the use of active voice dominated the whole sample. It was used 297 times with a relatively high usage percentage and Mean. Unlike the active voice, the passive voice was used only 26 times with a relatively low usage percentage and Mean.

**Table 10**

*Passivization for the Whole Sample*

PASSIVIZATION-TYPE	N	%	Sample Mean
active-voice	297	92.0	42.4
passive-voice	26	8.0	3.7
TOTAL	323	100%	46.1

Table 11 shows that circumstances of time and place were used the most throughout the whole sample. They had a relatively high usage percentage and Mean. However, all other types of circumstances were poorly used in the sample and had relatively low usage percentages and Means.

**Table 11**

*Circumstances for the Whole Sample*

CIRCUMSTANCES-TYPE	N	%	Sample Mean
time-(temporal)	20	18.5	2.9
place-(spatial)	44	40.7	6.3
manner-(how)	6	5.6	0.9
cause-(why)	8	7.4	1.1
accompaniment-(with-or-without)	5	4.6	0.7
matter-(about-what)	1	0.9	0.1
role-(as-what)	12	11.1	1.7
contingency-(under-what-circumstances)	1	0.9	0.1
angle-(whose---which-perspective)	11	10.2	1.6
TOTAL	108	100%	15.4

To summarize, for ideational meanings, it was found that the Means of use of material, mental, and verbal processes; nominalised imperfective clauses, verbal classifiers, and derived verbal nouns; non-human participants; passive voice and circumstances were relatively low. Moreover, the Means of use of behavioural, existential, and relational processes; underived verbal nouns, nominalised adjectives, and abstractions; human participants in general, “you” specifically and missing participants; and active voice were relatively high.

**Interpersonal Meanings.** Interpersonal meanings in this study refer to the four language aspects of mood, modality, personal references, and appraisal. Mood was used 498 times via its

two sub-aspects of indicative and imperative. On the one hand, the indicative was used 465 times throughout its two sub-aspects of declarative and interrogative. Declarative was used 283 times, with a relatively high usage percentage and Mean (see Table 12 below).

Likewise, interrogative was used 182 times, with a relatively high usage percentage and Mean. Table 12, on the other hand, shows that the imperative was used 33 times, with a relatively low usage percentage and Mean.

**Table 12**

*Mood Analysis*

TENOR	N	%	Sample Mean
mood	498	60.0	71.1
modality	153	18.4	21.9
personal-references	179	21.6	25.6
TOTAL	830	100.0	118.6
MOOD-TYPE	N	%	Sample Mean
indicative	465	93.4	66.4
imperative	33	6.6	4.7
TOTAL	498	100.0	71.1
INDICATIVE-TYPE	N	%	Sample Mean
declarative	283	60.9	40.4
interrogative	182	39.1	26.0
TOTAL	465	100.0	66.4

Table 13 below presents the analysis of the interrogative type used in this sample. The “not full question” had a relatively high usage percentage and high Mean.

Similarly, Table 14 below shows that the imperative was used 33 times, 28 times of which as an exclusive imperative (*do this and do that*). It had a relatively high usage percentage and Mean.

**Table 13**

*Interrogative Type Analysis*

INTERROGATIVE-TYPE	N	%	Sample Mean
yes-no-questions	30	16.5	4.3
wh-questions	57	31.3	8.1
not-full-question	95	52.2	13.6
TOTAL	182	100.0	26.0

**Table 14**

*Imperative Type Analysis*

IMPERATIVE-TYPE	N	%	Sample Mean
inclusive-(let's)	5	15.2	0.7
exclusive	28	84.8	4.0
TOTAL	33	100.0	4.7

The language aspect of modality was used 153 times via its sub-aspects of modalization and modulation. In modalization, probability had a relatively high usage percentage and Mean (see Table 15).

Likewise, the aspect modulation was used 90 times through its two sub-aspects of obligation and inclination. Obligation had a relatively high usage percentage and Mean.

**Table 15**

*Modality Analysis*

MODALITY-TYPE	N	%	Sample Mean
modalization	63	41.2	9.0
modulation	90	58.8	12.9
TOTAL	153	100.0	21.9

MODALIZATION-TYPE	N	%	Sample Mean
probability	42	66.7	6.0
usuality	21	33.3	3.0
TOTAL	63	100.0	9.0

MODULATION-TYPE	N	%	Sample Mean
obligation	69	76.7	9.9
inclination	21	23.3	3.0
TOTAL	90	100.0	12.9

Personal references were used 179 times throughout the whole text. As shown in Table 16, personal pronouns had a relatively high usage percentage and Mean. Moreover, vocatives were used 7 times as a third person, with a relatively high usage percentage and Mean. However, vocatives as a second person were used only 5 times, with a relatively low usage percentage and Mean.

**Table 16**

*Personal References Analysis*

PERSONAL-REFERENCES-TYPE	N	%	Sample Mean
personal-pronouns	167	93.3	23.9
vocatives	12	6.7	1.7
TOTAL	179	100.0	25.6

VOCATIVES-TYPE	N	%	Sample Mean
second-person	5	41.7	0.7
third-person	7	58.3	1.0
common-name	0	0.0	0.0
TOTAL	12	100.0	1.7

To summarize, for interpersonal meanings, it was found that the Means of use of declarative statements, yes/no questions, wh-questions, modalization (usuality), modulation (inclination) and vocatives (second person) were relatively low. Furthermore, the Means of use of imperative statements, not-full questions, modalization (probability), modulation (obligation), personal pronouns and vocatives (third person) were relatively high.

**Textual Meanings.** Textual meanings in this study refer to textual themes, textual adjuncts, cohesion, emphasis, lexical density, and grammatical intricacy. Textual themes refer to topical theme, interpersonal theme, and textual theme. They were used in the sample 635 times, of which the topical theme 369 times, with a relatively high usage percentage and Mean (see Table 17). However, interpersonal theme was used 121 times, with a relatively low usage percentage and Mean. Similarly, textual theme was used 145 times, with a relatively low usage percentage and Mean.

**Table 17**

*Textual Themes*

THEMES-TYPE	N	%	Sample Mean
topical-theme	369	58.1	52.7
interpersonal-theme	121	19.1	17.3
textual-theme	145	22.8	20.7
TOTAL	635	100%	90.7

Textual Adjuncts were used 147 times throughout this sample, of which conjunction adjuncts were used 94 times, with a relatively high usage percentage and Mean (see Table 18). Additionally, structural adjuncts had a relatively high usage percentage and Mean.

**Table 18**

*Textual Adjuncts*

TEXTUAL-ADJUNCTS-TYPE	N	%	Sample Mean
continuity	6	4.1	0.9
conjunction	94	63.9	13.4
structural	47	32.0	6.7
TOTAL	147	100%	21.0

Table 19 shows that cohesion had a relatively low usage percentage and Mean.

**Table 19**

*Cohesion*

COHESION-TYPE	N	%	Sample Mean
yes-cohesion	198	64.7	28.3
no-cohesion	108	35.3	15.4
TOTAL	306	100%	43.7

Emphasis was only used 91 times in this sample in which Markedness, for instance, had a relatively high usage percentage and Mean (see Table 20 below). However, unjustified repetition had a relatively high usage percentage and Mean. All other types of emphasis had relatively low usage percentages and Means.

**Table 20**

*Emphasis*

<b>EMPHASIS-TYPE</b>	<b>N</b>	<b>%</b>	<b>Sample Mean</b>
markedness	34	37.4	4.9
repetition	25	27.5	3.6
use-of-cleft	2	2.2	0.3
highlighting	16	17.6	2.3
circles	3	3.3	0.4
arrows	2	2.2	0.3
deleted-words	2	2.2	0.3
capital-letters	5	5.5	0.7
not only but also	2	2.2	0.3
<b>TOTAL</b>	<b>91</b>	<b>100%</b>	<b>13.0</b>

Lexical density for the sample was calculated by counting all active lexical items like nouns, verbs, adjectives, and adverbs and the total was divided by the whole number of words in the whole sample. Table 21 shows the relatively low lexical density.

**Table 21**

*Lexical Density*

LEXICAL-DENSITY	N	%	Sample Mean
nouns	643	50.8	91.9
verbs	318	25.1	45.4
adjectives	230	18.2	32.9
adverbs	75	5.9	10.7
Total Lexical Items	1266		
Total Words	2833		
Lexical Density		45%	

Grammatical intricacy for this sample was calculated, and the Mean was 2.62. This number shows two issues: 1. Ranking clauses have a relatively high usage percentage and Mean (see Table 22), and 2. Complex clauses had a relatively low usage percentage and Mean. Therefore, these results show the sample lack of detailed information.

**Table 22**

*Grammatical Intricacy and Logico Semantics*

CLAUSE-TYPE	N	%	Sample Mean
<b>Feedback Points</b>	<b>214</b>		
ranking-clause	348	56.7	49.7
taxis	133	21.7	19.0
Grammatical Intricacy			2.62
logico-semantic	133	21.7	19.0
TOTAL	614	100%	87.7

**Table 23**

*Projection and Expansion*

<b>LOGICO-SEMANTIC-TYPE</b>	<b>N</b>	<b>%</b>	<b>Sample Mean</b>
projection	19	14.3	2.7
expansion	114	85.7	16.3
<b>TOTAL</b>	<b>133</b>	<b>100%</b>	<b>19.0</b>
<b>PROJECTION-TYPE</b>	<b>N</b>	<b>%</b>	<b>Sample Mean</b>
idea	15	78.9	2.1
locution	4	21.1	0.6
<b>TOTAL</b>	<b>19</b>	<b>100%</b>	<b>2.7</b>
<b>EXPANSION-TYPE</b>	<b>N</b>	<b>%</b>	<b>Sample Mean</b>
elaborating-(in-other-words)	12	10.5	1.7
extending-(adding-variation)	29	25.4	4.1
enhancing-(circumstances)	73	64.0	10.4
<b>TOTAL</b>	<b>114</b>	<b>100%</b>	<b>16.3</b>

Logico-semantic relationship was found by analysing the complex clauses. Logico-semantic refers to projection via idea (mental) and locution (verbal); and expansion via elaborating, extending, and enhancing. Table 23 above shows that projection was used 19 times, with a relatively low usage percentage and Mean. Likewise, expansion was used 114 times in which enhancing had a relatively high usage percentage and Mean. However, elaborating and extending had relatively low usage percentages and Means.

To summarize, for textual meanings, it was found that the Means of use of interpersonal theme, textual theme, lexical density, continuity, cohesion, emphasis, clause complex, expansion (elaborating) and expansion (extending) were relatively low. Moreover, the Means of use of

topical theme, structural textual adjuncts, conjunction, no cohesion, ranking clauses, expansion (enhancing) and grammatical intricacy were relatively high.

**Appraisal.** Appraisal refers to graduation, attitude, and engagement. Table 24 presents graduation, which was used 314 times throughout the whole sample.

**Table 24**

*Graduation Type of Force and Focus*

GRADUATION-TYPE	N	%	Sample Mean
force	176	56.1	25.1
focus	138	43.9	19.7
TOTAL	314	100%	44.9
FORCE-TYPE	N	%	Sample Mean
negative-force	92	52.3	13.1
positive-force	84	47.7	12.0
TOTAL	176	100%	25.1
FOCUS-TYPE	N	%	Sample Mean
positive-focus	40	29.0	5.7
negative-focus	98	71.0	14.0
TOTAL	138	100%	19.7

Force was used 176 times, of which 92 times as negative force, with a relatively high usage percentage and Mean. Likewise, focus was employed 138 times, of which 98 times as negative focus, with a relatively high usage percentage and Mean.

Likewise, attitude was found through its three types of judgment, appreciation, and emotion. Table 25 shows that judgment was used 43 times throughout the whole sample. More importantly, negative judgment had a relatively high usage percentage and Mean.

Additionally, both negative appreciation and negative emotion had relatively high usage percentages and Means (see Table 25).

**Table 25**

*Attitude and its Types of Judgment, Appreciation, and Emotion*

<b>JUDGEMENT-TYPE</b>	<b>N</b>	<b>%</b>	<b>Sample Mean</b>
positive-judgement	15	34.9	2.1
negative-judgement	28	65.1	4.0
TOTAL	43	100%	6.1
<b>APPRECIATION-TYPE</b>	<b>N</b>	<b>%</b>	<b>Sample Mean</b>
positive	52	24.6	7.4
negative	159	75.4	22.7
TOTAL	211	100%	30.1
<b>EMOTION-(AFFECT)-TYPE</b>	<b>N</b>	<b>%</b>	<b>Sample Mean</b>
positive-emotion	31	57.4	4.4
negative-emotion	23	42.6	3.3
TOTAL	54	100%	7.7

Similar to graduation and attitude, engagement was employed 305 times in the sample (see Table 26). Disclaim had a relatively high usage percentage and Mean. Moreover, proclamation, entertainment, and attribution had relatively low usage percentages and low Means.

**Table 26**

*Engagement*

<b>ENGAGEMENT-TYPE</b>	<b>N</b>	<b>%</b>	<b>Sample Mean</b>
disclaim	124	40.7	17.7
proclamation	84	27.5	12.0
entertainment	76	24.9	10.9
attribution	21	6.9	3.0
TOTAL	305	100%	43.6

To summarize, for appraisal meanings, it was found that the Means of use of positive force, positive focus, positive judgment, positive appreciation, positive emotion, proclamation, entertainment and attribution were relatively low. Likewise, the Means of negative force, negative focus, negative judgment, negative appreciation, negative emotion and disclaim were relatively high.

**Empathy.** Table 27 shows that cognitive empathy was used 138 times, with a relatively high usage percentage and Mean. Moreover, affective empathy had a relatively low usage percentage and Mean. Similarly, the combination of cognitive and affective empathy was used in this sample. It had a relatively low usage percentage and Mean.

**Table 27**

*Levels of Empathy*

<b>EMPATHY-TYPE</b>	<b>N</b>	<b>%</b>	<b>Sample Mean</b>
no-empathy	84	26.5	12.0
cognitive-empathy	138	43.5	19.7
affective-empathy	30	9.5	4.3
cognitive-and-affective-empathy	24	7.6	3.4
compassionate-empathy	41	12.9	5.9
<b>TOTAL</b>	<b>317</b>	<b>100%</b>	<b>45.3</b>

Furthermore, compassionate empathy had a relatively low usage percentage and Mean. Finally, out of the 317 examples examined in the sample, there were 84 examples that had no empathy at all. This “no empathy” group did not employ any type of the above mentioned empathy, but it had a relatively high usage percentage and Mean.

**Summary**

Findings of the written feedback analysis by the systemic coder for the whole sample showed that for ideational meanings, the Means for the use of material, mental, and verbal

processes were relatively low. Likewise the Means for nominalised imperfective clauses, verbal classifiers, and derived verbal nouns were relatively low. Moreover, the Means for non-human participants, passive voice, circumstances were relatively low. These features will be referred to as ideational meanings 1. They help the provided written feedback to more likely be perceived as reflecting empathy as described in the Methodology chapter.

Furthermore, the Means for behavioural, existential, and relational processes were relatively high. Similarly, the Means for underived verbal nouns, nominalised adjectives, and abstractions were relatively high. Finally, the Means for human participants in general, “you” specifically, missing participants and active voice were relatively high. These meanings will be referred to as ideational meanings 2. These language features do not help the provided written feedback to be perceived as reflecting empathy as previously described.

In the same vein, for interpersonal meanings, the Means for the use of declarative statements, yes/no questions, wh-questions, modalization (usuality), modulation (inclination) and vocatives (second person) were relatively low. These meanings will be referred to as interpersonal meanings 1. As previously mentioned, these language features help the provided written feedback to more likely be perceived as reflecting empathy.

Additionally, the Means of use of imperative statements, not-full questions, modalization (probability), modulation (obligation), personal pronouns and vocatives (third person) were relatively high. These meanings will be referred to as interpersonal meanings 2. These features do not help the provided written feedback to be perceived as reflecting empathy as described in Chapter four.

Moreover, for textual meanings, the Means of the use of interpersonal theme, textual theme, lexical density, continuity, cohesion and emphasis were relatively low. Similarly, the

Means for conjunction, clause complex, expansion (elaborating) and expansion (extending) were relatively high. These meanings will be referred to as textual meanings 1. These features help the provided written feedback to more likely be perceived as reflecting empathy as previously described. Moreover, the Means of use of topical theme, structural textual adjuncts, no cohesion, ranking clauses and grammatical intricacy were relatively high. These language aspects will be referred to textual meanings 2. These features do not help the provided written feedback to be perceived as reflecting empathy as previously mentioned.

For appraisal meanings, the Means of positive force, positive focus, positive judgment, positive appreciation, positive emotion, proclamation, entertainment and attribution were relatively low. These language aspects will be referred to as appraisal meanings 1. These features help the provided written feedback to more likely be perceived as reflecting empathy as described previously in chapter four. Likewise, the Means of negative force, negative focus, negative judgment, negative appreciation, negative emotion and disclaim were relatively high. These meanings will be referred to as appraisal meanings 2. These features do not help the provided written feedback to be perceived as reflecting empathy as mentioned in the Methodology chapter. The following section will show the Means for the use of the ideational, interpersonal and textual meanings, appraisal and level of empathy for each participant.

#### ***Ideational, Interpersonal, Textual Meanings, Appraisal and Empathy for each Participant***

Seven participants submitted their assignments for analyzing the written feedback provided on them. The researcher found the individual Mean for each of ideational, interpersonal, textual, and appraisal meanings and empathy in each assignment and compared them to the SM of the respective language aspects.

By calculating the individual Means for the previously mentioned language aspects one could figure out the expected perceived empathy in the analysed feedback in connection to those language aspects and sub-aspects. To facilitate comparing and contrasting AM with SM, the Difference (D) and the Standard Deviation (SD) were employed. To be differentiated, ideational meanings 1, interpersonal meanings 1, textual meanings 1, appraisal 1 and compassionate empathy were coloured in blue. Moreover, ideational meanings 2, interpersonal meanings 2, textual meanings 2, appraisal meanings 2 and other levels of empathy were coloured in orange.

**Mary.** Having analyzed the written feedback on Mary's assignment in the systemic coder (O'Donnell, 2023), the researcher came out with the following findings. Table 28 shows the relatively low values of AM when compared to SM values in terms of ideational meanings 1, interpersonal meanings 1, textual meanings 1, appraisal meanings 1 and compassionate empathy. D values for the above meanings were relatively high. Likewise, SD was relatively high, which indicated that data were spread around the Mean.

Similarly, Table 28 presents the relatively low values of AM compared to SM in terms of ideational meanings 2, interpersonal meanings 2 and textual meanings 2. D values were relatively high. Moreover, the relatively high values of SD indicated that data were spread around the Mean.

However, Table 28 presents as well, the relatively high values of AM compared to SM in terms of appraisal meanings 2 and other levels of empathy. D values were relatively low, which indicated a relatively high use of the above language meanings. Moreover, SD low values showed that data were clustered around the Mean.

**Table 28**

*The Ideational, Interpersonal, Textual, Appraisal Meanings and Levels of Empathy in Mary’s Assignment*

	Mary's Assignment			
	AM	SM	D	SD
Id. M. 1	0.78	8.98	-8.21	2.90
Id. M 2	2.80	16.63	-13.83	4.61
Int. M. 1	0.17	9.93	-9.76	4.37
Int. M. 2	0.00	9.09	-9.09	4.54
Text. M. 1	2.93	14.67	-11.74	4.15
Text. M. 2	1.00	27.94	-26.94	15.55
Appr. M. 1	0.38	7.20	-6.82	2.58
Appr. M. 2	9.67	12.48	-2.81	1.26
Comp. Emp.	0.00	5.86	-5.86	2.39
O.L.E.	6.25	9.86	-3.61	2.08

ID. M. 1 = Ideational Meanings (1), ID. M. 2 = Ideational Meanings (2), Int. M. 1 = Interpersonal Meanings (1), Int. M. 2 = Interpersonal Meanings (2), Text. M. 1 = Textual Meanings (1), Text. M. 2 = Textual Meanings (2), Appr. M. 1 = Appraisal Meanings (1), Appr. M. 2 = Appraisal Meanings (2), Comp. Emp. = Compassionate Empathy, O.L.E. = Other Levels of Empathy, AM = Assignment Mean, SM = Sample Mean, D = Difference, SD = Standard Deviation.

**Jane.** The findings with regard to Jane’s assignment are presented in Table 29 below. AM values were relatively close to SM values in terms of ideational meanings 1, interpersonal meanings 1, textual meanings 1, appraisal meanings 1 and compassionate empathy. D values were low. Besides, the low values of SD showed that data were clustered around the Mean.

Likewise, AM values were relatively close to SM values in terms of ideational meanings 2, interpersonal meanings 2 and textual meanings 2. D low values showed the relatively average use of language aspects above mentioned. Moreover, SD low values indicated that data were clustered around the Mean.

**Table 29**

*The Ideational, Interpersonal, Textual, Appraisal Meanings and Levels of Empathy in Jane's Assignment*

	Jane's Assignment			
	AM	SM	D	SD
Id. M. 1	8.44	8.98	-0.54	0.19
Id. M. 2	14.80	16.63	-1.83	0.61
Int. M. 1	11.00	9.93	1.07	0.48
Int. M. 2	13.20	9.09	4.11	2.06
Text. M. 1	11.27	14.67	-3.40	1.20
Text. M. 2	25.69	27.94	-2.25	1.30
Appr. M. 1	6.25	7.20	-0.95	0.36
Appr. M. 2	4.50	12.48	-7.98	3.57
Comp. Emp.	6.00	5.86	0.14	0.06
O.L.E.	4.25	9.86	-5.61	3.24

ID. M. 1 = Ideational Meanings (1), ID. M. 2 = Ideational Meanings (2), Int. M. 1 = Interpersonal Meanings (1), Int. M. 2 = Interpersonal Meanings (2), Text. M. 1 = Textual Meanings (1), Text. M. 2 = Textual Meanings (2), Appr. M. 1 = Appraisal Meanings (1), Appr. M. 2 = Appraisal Meanings (2), Comp. Emp. = Compassionate Empathy, O.L.E. = Other Levels of Empathy, AM = Assignment Mean, SM = Sample Mean, D = Difference, SD = Standard Deviation.

Furthermore, Table 29 shows that AM values were lower than SM values in terms of appraisal meanings 2 and other levels of empathy. D high values reflected the low use of these language aspects. Moreover, SD values in terms of appraisal meanings 2 and other levels of empathy were relatively high.

**Mark.** The findings of Mark's assignment regarding the values of AM in terms of ideational meanings 1, interpersonal meanings 1, textual meanings 1, appraisal meanings 1 and compassionate empathy were relatively high. D was relatively high, which indicated a

remarkably high use made of the kind of the above language aspects. This could reflect empathy (see Table 30).

**Table 30**

*The Ideational, Interpersonal, Textual, Appraisal Meanings and Levels of Empathy in Mark's Assignment*

	Mark's Assignment			
	AM	SM	D	SD
Id. M. 1	19.67	8.98	10.68	3.78
Id. M. 2	38.70	16.63	22.07	7.36
Int. M. 1	27.00	9.93	17.07	7.63
Int. M. 2	22.00	9.09	12.91	6.46
Text. M. 1	36.72	14.67	22.05	7.80
Text. M. 2	69.29	27.94	41.35	23.87
Appr. M. 1	21.38	7.20	14.18	5.36
Appr. M. 2	17.83	12.48	5.36	2.40
Comp. Emp.	29.00	5.86	23.14	9.45
O.L.E.	13.50	9.86	3.64	2.10

ID. M. 1 = Ideational Meanings (1), ID. M. 2 = Ideational Meanings (2), Int. M. 1 = Interpersonal Meanings (1), Int. M. 2 = Interpersonal Meanings (2), Text. M. 1 = Textual Meanings (1), Text. M. 2 = Textual Meanings (2), Appr. M. 1 = Appraisal Meanings (1), Appr. M. 2 = Appraisal Meanings (2), Comp. Emp. = Compassionate Empathy, O.L.E. = Other Levels of Empathy, AM = Assignment Mean, SM = Sample Mean, D = Difference, SD = Standard Deviation.

Likewise, the high values of SD showed that data was spread around the Mean. Furthermore, Mark's AM values for ideational meanings 1, interpersonal meanings 1, textual meanings 1, appraisal meanings 1 and compassionate empathy were the highest among all analysed assignments.

In the same vein, the values of AM in terms of ideational meanings 2, interpersonal meanings 2, textual meanings 2, appraisal meanings 2 and other levels of empathy were relatively high. Both D and SD values were relatively high.

**Emily.** Table 31 below presents the findings regarding Emily’s assignment. The values of AM in terms of ideational meanings 1, interpersonal meanings 1 and textual meanings 1 were relatively higher than the SM values. D was relatively low. These relatively low values of D indicated the relatively high use made of the above language aspects. SD was relatively low, which indicated that data were clustered around the Mean (see Table 31).

**Table 31**

*The Ideational, Interpersonal, Textual, Appraisal Meanings and Levels of Empathy in Emily’s Assignment*

	Emily's Assignment			
	AM	SM	D	SD
Id. M. 1	16.00	8.98	7.02	2.48
Id. M 2	25.10	16.63	8.47	2.82
Int. M. 1	14.00	9.93	4.07	1.82
Int. M. 2	11.00	9.09	1.91	0.96
Text. M. 1	22.49	14.67	7.82	2.77
Text. M. 2	36.82	27.94	8.88	5.13
Appr. M. 1	6.25	7.20	-0.95	0.36
Appr. M. 2	10.17	12.48	-2.31	1.03
Comp. Emp.	2.00	5.86	-3.86	1.57
O.L.E.	9.00	9.86	-0.86	0.49

ID. M. 1 = Ideational Meanings (1), ID. M. 2 = Ideational Meanings (2), Int. M. 1 = Interpersonal Meanings (1), Int. M. 2 = Interpersonal Meanings (2), Text. M. 1 = Textual Meanings (1), Text. M. 2 = Textual Meanings (2), Appr. M. 1 = Appraisal Meanings (1), Appr. M. 2 = Appraisal Meanings (2), Comp. Emp. = Compassionate Empathy, O.L.E. = Other Levels of Empathy, AM = Assignment Mean, SM = Sample Mean, D = Difference, SD = Standard Deviation.

However, the values of appraisal meanings 1 and compassionate empathy were relatively low. D was relatively low, which indicated a lower use of the above language aspects. SD was relatively low, which showed that data are clustered around the Mean.

Moreover, the values of AM in terms of ideational meanings 2, interpersonal meanings 2, and textual meanings 2 were relatively high. D was high, which indicated that the kind of use made of the above language aspects was high. Besides, SD was relatively high, which showed that data are spread around the Mean. Likewise, the values for appraisal meanings 2 and other levels of empathy were relatively low. D was relatively low, which indicated a lower reliance on use of these language meanings. SD was relatively low, which showed that the data was clustered around the Mean.

**Laura.** The findings regarding Laura's assignment are presented in Table 32. The values of AM in terms of ideational meanings 1, interpersonal meanings 1, textual meanings 1, appraisal meanings 1 and compassionate empathy were relatively low compared to similar values of SM. D was relatively low. This showed the lower use of the above language aspects. SD was low, which showed that data was clustered around the Mean.

Furthermore, the values of AM regarding ideational meanings 2, interpersonal meanings 2 and textual meanings 2 were relatively low. The minus values of D indicated a lower use of the above language meanings. Moreover, SD was relatively low, which showed that data were clustered around the Mean. Additionally, AM value for appraisal meanings 2 was relatively high. D was relatively high, which indicated the high use of appraisal meanings 2. SD was relatively high, which indicated that data was spread around the Mean. Likewise, AM value of "other levels of empathy" was relatively high. The relatively low positive D indicated the high use of "other levels of empathy". The relatively low SD showed that "other levels of empathy" data was clustered around the Mean.

**Table 32**

*The Ideational, Interpersonal, Textual, Appraisal Meanings and Levels of Empathy in Laura's Assignment*

	Laura's Assignment			
	AM	SM	D	SD
Id. M. 1	6.33	8.98	-2.65	0.94
Id. M 2	9.10	16.63	-7.53	2.51
Int. M. 1	5.50	9.93	-4.43	1.98
Int. M. 2	7.00	9.09	-2.09	1.04
Text. M. 1	6.39	14.67	-8.28	2.93
Text. M. 2	21.08	27.94	-6.86	3.96
Appr. M. 1	4.13	7.20	-3.07	1.16
Appr. M. 2	19.17	12.48	6.69	2.99
Comp. Emp.	0.00	5.86	-5.86	2.39
O.L.E.	11.25	9.86	1.39	0.80

ID. M. 1 = Ideational Meanings (1), ID. M. 2 = Ideational Meanings (2), Int. M. 1 = Interpersonal Meanings (1), Int. M. 2 = Interpersonal Meanings (2), Text. M. 1 = Textual Meanings (1), Text. M. 2 = Textual Meanings (2), Appr. M. 1 = Appraisal Meanings (1), Appr. M. 2 = Appraisal Meanings (2), Comp. Emp. = Compassionate Empathy, O.L.E. = Other Levels of Empathy, AM = Assignment Mean, SM = Sample Mean, D = Difference, SD = Standard Deviation.

**Maria.** Table 33 below show that AM values regarding ideational meanings 1, interpersonal meanings 1, textual meanings 1, appraisal meanings 1 and compassionate empathy were relatively low. While D positive values showed higher use of the above language aspects, D negative values indicated lower use of those language aspects. The relatively low values of SD showed that data was clustered around the Mean.

Additionally, AM values in terms of ideational meanings 2, interpersonal meanings 2 and textual meanings 2 were relatively low. The minus values of D indicated a lower use of the above language aspects. SD was relatively low, which showed that data was clustered around the Mean. Besides, the values for appraisal meanings 2 and other levels of empathy were relatively

high. The relatively high positive D showed higher use of these language aspects. The SD relatively high values indicated that data was spread around the Mean.

**Table 33**

*The Ideational, Interpersonal, Textual, Appraisal Meanings and Levels of Empathy in Maria’s Assignment*

	Maria's Assignment			
	AM	SM	D	SD
Id. M. 1	6.33	8.98	-2.65	0.94
Id. M 2	14.60	16.63	-2.03	0.68
Int. M. 1	5.83	9.93	-4.10	1.83
Int. M. 2	3.40	9.09	-5.69	2.84
Text. M. 1	15.05	14.67	0.38	0.13
Text. M. 2	23.78	27.94	-4.16	2.40
Appr. M. 1	4.63	7.20	-2.57	0.97
Appr. M. 2	18.50	12.48	6.02	2.69
Comp. Emp.	1.00	5.86	-4.86	1.98
O.L.E.	15.25	9.86	5.39	3.11

ID. M. 1 = Ideational Meanings (1), ID. M. 2 = Ideational Meanings (2), Int. M. 1 = Interpersonal Meanings (1), Int. M. 2 = Interpersonal Meanings (2), Text. M. 1 = Textual Meanings (1), Text. M. 2 = Textual Meanings (2), Appr. M. 1 = Appraisal Meanings (1), Appr. M. 2 = Appraisal Meanings (2), Comp. Emp. = Compassionate Empathy, O.L.E. = Other Levels of Empathy, AM = Assignment Mean, SM = Sample Mean, D = Difference, SD = Standard Deviation.

**Cathy.** Table 34 shows Cathy’s AM relatively low values in terms of ideational meanings 1, interpersonal meanings 1, textual meanings 1, appraisal meanings 1 and compassionate empathy. The D low positive value showed a higher use of appraisal meanings 1, but the D negative values indicated a lower use of other language aspects. SD was relatively low except for textual meanings 1. SD low values indicated that data was clustered around the Mean.

**Table 34**

*The Ideational, Interpersonal, Textual, Appraisal Meanings and Levels of Empathy in Cathy's Assignment*

	Cathy's Assignment			
	AM	SM	D	SD
Id. M. 1	5.33	8.98	-3.65	1.29
Id. M. 2	11.30	16.63	-5.33	1.78
Int. M. 1	6.00	9.93	-3.93	1.76
Int. M. 2	7.00	9.09	-2.09	1.04
Text. M. 1	7.83	14.67	-6.84	2.42
Text. M. 2	17.94	27.94	-10.00	5.77
Appr. M. 1	7.38	7.20	0.18	0.07
Appr. M. 2	7.50	12.48	-4.98	2.23
Comp. Emp.	3.00	5.86	-2.86	1.17
O.L.E.	9.50	9.86	-0.36	0.21

ID. M. 1 = Ideational Meanings (1), ID. M. 2 = Ideational Meanings (2), Int. M. 1 = Interpersonal Meanings (1), Int. M. 2 = Interpersonal Meanings (2), Text. M. 1 = Textual Meanings (1), Text. M. 2 = Textual Meanings (2), Appr. M. 1 = Appraisal Meanings (1), Appr. M. 2 = Appraisal Meanings (2), Comp. Emp. = Compassionate Empathy, O.L.E. = Other Levels of Empathy, AM = Assignment Mean, SM = Sample Mean, D = Difference, SD = Standard Deviation.

Similarly, AM values regarding ideational meanings 2, interpersonal meanings 2, and other levels of empathy were relatively low when they were compared to the SM values. The minus values of D showed lower use of the above language aspects. Moreover, SD was relatively low for the above meanings. However, for textual meanings 2 and appraisal meanings 2, D and SD were relatively high. These findings indicated that data was clustered around the Mean except for textual meanings 2 and appraisal meanings 2, which were spread around the Mean (see Table 34).

*Summary*

The ideational, interpersonal, textual, and appraisal meanings, in this study, are found to positively or negatively affect student perception of reflected empathy of the written feedback provided on student assignments by their professors because of unwanted added positive or negative effects. Ideationally, if the following ideational meanings of material processes, mental processes, verbal processes, nominalised imperfective clauses, verbal classifiers, derived verbal nouns, non-human participants, passive voice, and circumstances are higher in written feedback, that feedback is more likely to be perceived by students as reflecting cognitive empathy. According to the “Register Theory” in SFL, ideation deals with “what, where, when, how, and why” (e.g., Halliday, 2008). The use of these ideational meanings in written feedback could help students identify their needs in terms of “what to be fixed and why”.

Moreover, if the following ideational meanings of behavioural processes, existential processes, relational processes, underived verbal nouns, nominalised adjectives, abstractions, human participants, missing participants and active voice are highly used in a feedback, that feedback is more likely to be perceived by students as reflecting no cognitive empathy. It fails to identify “what to be fixed and why”. High use of these meanings could hinder student learning.

Interpersonally, if the following interpersonal meanings of declarative statements, yes/no questions, wh-questions, modalization (usuality), modulation (inclination) and vocatives (second person) are highly used in a feedback, that feedback is more likely to be perceived by students as reflecting affective empathy. The use of the above meanings reflects an appropriate relationship among participants (e.g., Hasan, 1985; Martin, 1986). This feedback respects student feelings. It can motivate students to move forward in learning and it could lead to a deeper relationship between both the feedback provider and receiver.

Similarly, if the following interpersonal meanings of imperative statements, not-full questions, modalization (probability), modulation (obligation), personal pronouns and vocatives (third person) are higher in a feedback, that feedback is more likely to be perceived by students as reflecting no affective empathy. High use of these meanings reflects inappropriate relationship among participants like, lack of respect and use of power (e.g., Hasan, 1985; Martin, 1986). This feedback does not respect student feelings. It may demotivate them and hinder their learning.

Textually, if the following textual meanings of interpersonal theme, textual theme, lexical density, continuity, conjunction, cohesion and emphasis, clause complex, expansion (elaborating) and expansion (extending) are higher in a feedback, that feedback is more likely to be perceived by students as reflecting compassionate empathy. This feedback can enrich student learning because it provides more details and more suggestions for improvement.

Additionally, if the following textual meanings of topical theme, structural textual adjuncts, no cohesion, ranking clauses and grammatical intricacy are highly used in a feedback, that feedback is more likely to be perceived by students as reflecting no compassionate empathy. This feedback could demotivate students and confuse them because it may be irrelevant or it may provide no further details on how to achieve the goal(s) of a learning episode.

Regarding appraisal meanings, if the following appraisal meanings of positive force, positive focus, positive judgment, positive appreciation, positive emotion, proclamation, entertainment and attribution are higher in a written feedback, that feedback is more likely to be perceived by students as reflecting affective empathy. This feedback can motivate students to move forward in learning.

Furthermore, if the following appraisal meanings of negative force, negative focus, negative judgment, negative appreciation, negative emotion and disclaim are highly used in a

feedback, that feedback is more likely to be perceived by students as reflecting no affective empathy. This feedback can demotivate students and hinder their learning.

Regarding levels of empathy, if a feedback can reach the level of compassionate empathy where it could meet student needs, take care of student feelings and suggest solutions for improvement, that feedback is more likely to be perceived by students as empathic feedback. This is the first scenario. This feedback could motivate students and enhance their learning. Additionally, if a feedback can reach the level of compassionate empathy where it could meet student needs and suggest solutions for improvement without hurting student feelings, that feedback, as well, is more likely to be perceived by students as empathic feedback. This is the second scenario. This feedback could enhance student learning. In the same vein, any feedback that can reflect only cognitive empathy, affective empathy, or cognitive and affective empathy is not empathic feedback.

### **The First Research Question**

The first research question is “How does each of the three language aspects, (field, tenor, mode) of the written feedback provided to graduate students, reflect empathy? To answer this question, the Means and the SD of ideational meanings 1, ideational meanings 2, interpersonal meanings 1, interpersonal meanings 2, textual meanings 1, textual meanings 2, appraisal meanings 1, appraisal meanings 2, compassionate empathy level, and other levels of empathy for every AM were individually compared and contrasted to the Means and SD for the SM for these meanings.

### ***Ideational Meanings***

The expression of ideational meanings will be categorized as follows: 1. Ideational meanings 1 (Id. M. 1). As previously explained, these features help the provided written

messages, written feedback in this case, to reflect cognitive empathy. Id. M. 1 of AM for Mary, Laura, Maria and Cathy were 0.78, 6.33, 6.33, and 5.33 respectively. The SM was 8.98. SD was  $\pm 2.90$ ,  $\pm 0.94$ ,  $\pm 0.94$ , and  $\pm 1.29$  respectively. This shows that the use of Id M. 1 in these assignments was less than its use in the sample as a whole. These results show that the feedback on these assignments reflected no cognitive empathy. Similarly, Id M. 1 of AM for Mark was 19.67 and SD was  $\pm 3.78$ . This was higher than SM. These results indicate that the feedback on Mark's assignment reflected cognitive empathy.

2. Ideational meanings 2 (Id. M. 2). These features do not help the provided written feedback to reflect cognitive empathy. Id. M. 2 of AM for Jane and Emily was 14.80 and 25.10 respectively. The SM was 16.63 and SD was  $\pm 0.61$  and  $\pm 2.82$  respectively. This shows that Jane's AM was lower than SM. But, Emily's AM was higher than SM. These results indicate that the feedback on Jane's assignment reflected cognitive empathy, but Emily's feedback reflected no cognitive empathy. Moreover, Id. M. 2 of AM for Mark was 38.70. The SM was 16.63 and SD was  $\pm 7.36$ . This shows that Mark's AM was higher than SM. These results indicate that Mark's feedback reflected no cognitive empathy.

### ***Interpersonal Meanings***

The expression of interpersonal meanings will be categorized as follows: 1. Interpersonal meanings 1 (Int. M. 1). As mentioned earlier, these aspects help the provided written feedback to reflect affective empathy. Int. M. 1 of AM for Mary, Laura, Maria and Cathy were 0.17, 5.50, 5.83 and 6.00 respectively. The SM was 9.93. SD was  $\pm 4.37$ ,  $\pm 1.98$ ,  $\pm 1.83$  and  $\pm 1.76$  respectively. This shows that AM Means for the above mentioned participants were lower than the SM. These results show that the feedback on these assignments reflected no affective empathy. However, Int. M. 1 of the AM values for Jane and Mark were 11.00 and 27.00

respectively. SD was  $\pm 0.48$  and  $\pm 7.63$  respectively. This shows that Jane's and Mark's AM were higher than SM. These results indicate that the feedback on Jane's and Mark's assignments reflected affective empathy.

2. Interpersonal meanings 2 (Int. M. 2). These aspects do not help the provided written feedback to reflect affective empathy. Similarly, Int. M. 2 of AM for Emily was 11.00. The SM was 9.09. SD was  $\pm 0.96$ . This shows that Emily's AM was higher than SM. These results show that the feedback on Emily's assignment reflected no affective empathy. Similarly, Int. M. 2 for AM for Jane and Mark were 13.20 and 22.00 respectively. SD was  $\pm 2.02$  and  $\pm 6.46$  respectively. These results show that the feedback on Jane's and Mark's assignments reflected no affective empathy.

### ***Textual Meanings***

The expression of textual meanings will be categorized as follows: 1. Textual meanings 1 (Text. M. 1). These features help the provided written feedback to reflect compassionate empathy. Text. M. 1 of AM for Mary, Laura and Cathy were 2.93, 6.39 and 7.83 respectively. The SM was 14.67. SD was  $\pm 4.15$ ,  $\pm 2.93$  and  $\pm 2.42$  respectively. This shows that these participants' AM were lower than SM. These results indicate that the feedback on these assignments reflected no compassionate empathy. However, Text. M. 1 of AM for Mark was 36.72 with SD of  $\pm 7.80$ . This shows that Mark's AM was higher than SM. Emily as well had AM of 22.49 and SD of  $\pm 2.77$ . This shows that Emily's AM was higher than SM. These results show that the feedback on Mark's and Emily's assignment reflected compassionate empathy.

2. Textual meanings 2 (Text. M. 2). These features do not help the provided written feedback to reflect compassionate empathy. Text. M. 2 of AM for Emily was 36.82. The SM was 27.94. SD was  $\pm 5.13$ . This shows that Emily's AM was higher than SM. These results indicate

that the feedback on Emily's assignment reflected no compassionate empathy. Similarly, Text. M. 2 of AM for Mark was 69.29 with SD of  $\pm 23.87$ . This shows that Marks AM was higher than SM. This result shows that the feedback on Mark's assignment reflected no compassionate empathy. Unlike Emily and Mark, Text. M. 2 of AM for Jane was 25.69 and SD was  $\pm 1.30$ . This shows that Jane's AM was lower than SM. These results show that the feedback on Jane's assignment reflected compassionate empathy.

In the same vein, ideational, interpersonal and textual meanings work in concert to shape the messages to be sent to students. For instance, Maria's Id. M. 1, Int. M. 1 and Text. M. 1 of AM were 6.33, 5.50 and 6.39 respectively. The SM were 8.98, 9.93 and 14.67 respectively. For the above meanings, Maria's AM were lower than SM. These results indicate that the feedback on Maria's assignment reflected no empathy. Besides, Marias' Id. M. 2, Int. M. 2 and Text. M. 2 of AM were 9.10, 7.00 and 21.08 respectively. The SM were 16.63, 9.09 and 27.94 respectively. Maria's AM were lower than SM., but Maria's AM values for these meanings were respectively high. These results show that the feedback on Maria's assignment reflected no empathy. Mary as well, had a similar situation as Maria, but the negative aspects were dominating. This was reflected by the high SD on Mary's assignment. These results indicate that the feedback on Mary's assignment reflected no empathy.

### ***Appraisal Meanings***

The expression of appraisal meanings will be categorized as follows: 1. Appraisal meanings 1 (App. M. 1). As previously explained, these features help the provided written feedback to reflect affective empathy. App. M. 1 of AM for Mary, Emily, Laura and Maria were 0.38, 6.25, 4.13 and 4.63 respectively. The SM was 7.20. SD was  $\pm 2.58$ ,  $\pm 0.36$ ,  $\pm 1.16$  and  $\pm 0.97$  respectively. This shows that AM for the above participants were lower than SM. These

results show that the feedback on these assignments reflected no affective empathy. Moreover, App. M. 1 of AM for Mark was 21.38 with SD of  $\pm 5.36$ . This shows that Mark's AM was higher than SM. Additionally, App. M. 1 of AM for Cathy was 7.38 with SD of  $\pm 0.07$ . This shows that Cathy's AM was slightly higher than SM. These results indicate that the feedback on Mark's and Cathy's assignments reflected affective empathy.

2. Appraisal meanings 2 (App. M. 2). These aspects do not help the provided written feedback to reflect affective empathy. App. M. 2 of AM for Laura and Maria were 19.17 and 18.50 respectively. The SM was 12.48. SD was  $\pm 2.99$  and  $\pm 2.69$  respectively. This shows that Laura's and Maria's AM were higher than SM. These results show that the feedback on Laura's and Maria's assignments reflected no affective empathy. Furthermore, Cathy's AM was 7.50 with an SD of  $\pm 2.23$ . This shows that Cathy's AM was lower than SM. Besides, Jane's AM was 4.50 with large SD of  $\pm 3.57$ . This shows that her AM was lower than SM. These results indicate that the feedback on Cathy's and Jane's assignments reflected affective empathy.

### ***Empathy Levels***

Compassionate Empathy (Comp. Emp.) of AM for Mary, Emily, Laura, Maria and Cathy were 0.00, 2.00, 0.00, 1.00 and 3.00 respectively. The SM was 5.86. SD was  $\pm 2.39$ ,  $\pm 1.57$ ,  $\pm 2.39$ ,  $\pm 1.98$  and  $\pm 1.17$  respectively. This shows that AM for these participants were lower than SM. These results show that the feedback on these assignments reflected no compassionate empathy. Additionally, Comp. Emp. of AM for Jane and Mark were 6.00 and 29.00 respectively. SD was 0.06 and 9.45 respectively. This shows that AM for Jane and Mark were higher than SM. These results indicate that the feedback on Jane's and Mark's assignments reflected compassionate empathy.

Moreover, other levels of empathy (O.L.E.) of AM for Laura and Maria were 11.25 and 15.25 respectively. The SM was 9.86. SD was  $\pm 0.80$  and  $\pm 3.11$  respectively. This shows that AM for Laura and Maria were higher than SM. These results show that the feedback on Laura's and Maria's assignments reflected other levels of empathy including "no-empathy". Moreover, Jane's AM was 4.25 with a big SD of 3.24. This shows that Jane's AM was lower than SM. This result indicates that the feedback on Jane's assignment reflected no cognitive, but affective empathy. Unlike Jane, Cathy's AM was 9.50 with an SD of  $\pm 0.21$ . This shows that the D between Cathy's AM and the SM was small. Similarly to Cathy, Emily's AM was 9.00 with a low SD of  $\pm 0.49$ . These relatively high results show that the feedback on Cathy's and Emily's assignments reflected other levels of empathy (cognitive and/or affective empathy).

**Summary**

Results of quantitative data show that the level of empathy indicated by my linguistic analysis of each participant was generally consistent with the level of empathy indicated by the focus of the feedback provided (i.e., whether or not it merely identified an issue to be improved, took care of student feelings, or suggested a path to improvement). Firstly, AM values for Ideational Meanings 1 for Mary, Laura, Maria, and Cathy were lower than the SM values for these same meanings. These results of Ideational Meanings 1 show that the analysed feedback on Mary's, Laura's, Maria's, and Cathy's assignments did not meet these students' needs and it reflected no cognitive empathy. Moreover, AM values for Ideational Meanings 1 for Jane, Mark, and Emily were close or higher than the SM values for these same meanings. These results of Ideational Meanings 1 indicate that the analysed feedback on Jane's, Mark's, and Emily's assignments did meet these students' needs and it reflected cognitive empathy.

Secondly, AM values for Interpersonal Meanings 1 for Mary, Laura, and Maria were lower than the SM values for these same meanings. Moreover, AM values for Appraisal Meanings 1 for Mary, Laura, and Maria were lower than the SM values for these same meanings. These results of Interpersonal Meanings 1 and Appraisal Meanings 1 indicate that the written feedback on Mary's, Laura's, and Maria's assignments was, according to SFL, not appropriate to these students' feelings and it reflected no affective empathy. Besides, Cathy's AM for Interpersonal Meanings 1 was lower than the SM values for these same meanings. But Cathy's AM values for Appraisal Meanings 1 was slightly higher than the SM value for these meanings (SD= 0.07). Cathy's feedback was to some degree appropriate and it reflected a low level of affective empathy. Likewise, AM values for Interpersonal Meanings 1 for Jane, Mark, and Emily were higher than the SM values for these same meanings. Moreover, AM values for Appraisal Meanings 1 for Mark was higher than the SM values for these same meanings. Additionally, Jane's and Emily's AM for Appraisal Meanings 1 were close to the SM values for these meanings. Moreover, Jane's and Emily's AM for Appraisal Meanings 2 were lower than the SM values for these meanings. These results show that the feedback on Jane's, Mark's, and Emily's assignments was appropriate for them and it reflected affective empathy.

Lastly, AM values for Textual Meanings 1 for Mary, Jane, Laura, and Cathy were lower than the SM values for these same meanings. These results show that the analysed feedback on these assignments was not detailed enough to suggest ways for improvement and it reflected no compassionate empathy. Moreover, AM values for Textual Meanings 1 for Mark, Emily, and Maria were higher than the SM values for these same meanings. These results indicate that the analysed feedback on Mark's, Emily's, and Maria's assignments did provide detailed feedback and suggested ways for improvement and it reflected compassionate empathy. In the same vein,

AM values for Comp. Emp. for Mary, Laura, Emily, Maria, and Cathy were lower than the SM values for these same meanings. These results show that the analysed feedback on these assignments were not detailed enough to fix the problems in hand and suggest solutions for improvement. This feedback reflected no compassionate empathy. Moreover, AM values for Comp. Emp. for Jane and Mark were higher than the SM values for these same meanings. These results indicate that the analysed feedback on Jane's and Mark's assignments was detailed enough to meet these students' needs and suggest ways for improvement. This feedback reflected compassionate empathy.

**B. Emerging Themes (Qualitative Results)**

All seven interviews were audio-recorded. The recorded material was transcribed, coded, and analyzed, as suggested by Saldana (2013). After analysis, the following four main themes emerged: Feedback form and content, solidarity, empathy, and prospective barriers (see Appendix M for emerging themes and sub-themes and their supporting literature).

All emerging themes and sub-themes were echoed by the voices of the seven participants. This presentation of emerging themes is essential for it not only provides the reader with results from interviews, but it also supports results from the coder. The following sections will discuss these themes and their sub-themes. Then, more detailed sections about how each participant has touched upon a few or all of these emerging themes will be discussed.

***Feedback Form and Content***

Most interviewed participants have agreed that feedback form and content are essential for the provided written feedback to reflect empathy and be useful. Emily was the only participant who believed content was the main player and form was the secondary one. Emily thought as long as the content was useful, she did not put a great deal of focus on the form.

All other participants believed that form is part of content. They thought that form and content both shared the responsibility of conveying any intended message. In this theme, four sub-themes will be discussed: Feedback writing style, positive feedback, negative feedback and feedback quality.

**Feedback Writing Style.** Writing style was a focus of most of the participants. For example, Mark highlighted his professor's choices of using dialogue and suggestions over using other ways of addressing, for example, the imperative. Mary explained that her professor's choice of structure was in the form of questions, which helped her in finding out what the professor was pointing to. However, Mary stressed using full statements because she thought using full statements could better answer her needs and could reflect empathy.

Likewise, Cathy reported that the feedback she received on her assignment could have affected her negatively if it had not been consisting of short declarative positive statements. All the above examples stress the professor's vocabulary and structure choices that could reflect empathy when providing feedback.

**Positive Feedback.** Most interviewees focussed on the vital role of positive feedback in reflecting empathy, which can improve learning. According to participants, positive feedback refers to the feedback that uses the language of praise like "great job, good point" in highlighting any issues that students did correctly. For instance, Mark was happy with the positive feedback he received and how it pushed him to improve his learning. Similarly, Cathy felt the importance of positive feedback and she agreed that positive feedback is more likely to reflect empathy. Likewise, Emily revealed that the feedback she received affected her positively because it met her needs and enriched her paper. In the same vein, Laura believed that positive feedback helped her to move forward.

Most participants realised that positive feedback is more likely to reflect affective empathy and improve student learning. However, five participants could not provide more than one example of the positive feedback they received on their assignments. Furthermore, Mary did not find any positive feedback on her assignment. This shortage of positive feedback could reflect the lack of affective empathy on students' assignments.

**Negative Feedback.** All participants agreed that negative feedback is not recommended when providing feedback because they thought it can affect the student and his or her learning negatively. According to participants, negative feedback refers to the feedback that uses the language of power and blaming like "do this and do that or you must do this" in highlighting only issues that students did wrongly. For instance, the feedback that Mary had on her assignment was negative and it affected her personally and drove her to react negatively and take unnecessary decisions. Likewise, Jane had negative feedback from her first supervisor who literally said, "You are handicapped in research". This negative feedback caused Jane to have a bad time for a while. Then, Jane had to change her supervisor. Jane's experience was similar to Laura's experience. Laura's supervisor provided her with negative feedback. He used tough and imperative language that, according to Laura, reflected his use of power.

Similarly, Emily indicated that she had negative feedback on her assignment, which made her take the drastic decision of ignoring that feedback. Thus, the above examples show that negative feedback is not recommended while providing feedback. All participants confirmed that negative feedback could reflect no empathy and it could drive students to react negatively.

**Feedback Quality.** Most participants agreed that detailed feedback is necessary in the sense that the feedback finds an issue to be fixed and suggests solutions. However this is not the

case with most of our participants in this study. For example, Laura perceived her feedback to be too general and did not highlight what, why and how an issue is to be changed.

Unlike Laura, Emily reported that the feedback she got had too many unnecessary details. She had to ignore those details because they were beyond the scope of her study. Furthermore, Cathy reported that the feedback she had on her assignment was not a great feedback. However, it worked because it was affected by so many outside issues like the relationship with the professor, the seminar, and the fact that Cathy was about to complete her dissertation.

To summarize, participants reported that feedback writing style could reflect empathy or no empathy depending on a professor's choices of vocabulary and structure. For example, a professor's choice of using short declarative statements, dialogue, suggestions, interrogatives, and full sentences is more likely to reflect empathy. Likewise, a professor's choice of employing curt imperatives, short phrases of one or two words, and/or negative vocabulary could reflect no empathy.

Furthermore, most participants agreed that both positive feedback and detailed feedback are more likely to reflect empathy. Negative feedback, on the other hand, could reflect no empathy. Issues like professor and student relationships will be discussed in the coming section under solidarity.

### ***Solidarity***

Participants agreed that solidarity (as opposed to power) has positive effects on the process of feedback provision. According to participants, solidarity could improve student perception of the provided feedback. Results show that solidarity could be among professors of one committee, where all members provide feedback that does not contradict one another. It

could also be between a professor and a student, where they could agree on how to improve the provided feedback.

Improving feedback could be by helping a student understand some missing points that he or she finds elusive and therefore does not pay enough attention to. It could also be by talking about the feedback with the student. This discussion can reduce the chances for feedback to have many unintended interpretations. Under solidarity, three sub-themes will be discussed: Teamwork, feedback discussion, and multiple interpretations.

**Teamwork.** To begin with, teamwork among professors can help the student achieve more in less time. For example, Maria had four committee members and each of them focused on a different aspect of her dissertation. This teamwork was helpful for her. Similarly, Jane stressed the idea of teamwork among professors. She focussed on the feedback she got from all her committee members as one whole. Then, she tried to make use of all the feedback she received. Jane thought that the feedback by one professor can complete the feedback by another professor. This cooperation can help a student to see the big picture. Likewise, Laura described an important angle in her research that her supervisor did not highlight, but another professor did. Laura believed that collaboration among professors is essential for students.

On the other hand, teamwork between a professor and a student can help both of them fill in the gaps. For example, Laura ignored any feedback shortage by her professor because of their good relationship and teamwork. Similarly, Cathy believed that her good relationship with her professor motivated her to overlook any feedback shortcomings and to fill in any feedback gaps. The above examples show the importance of teamwork among professors and students when providing feedback. Most participants agreed that feedback teamwork could reflect empathy.

**Feedback Discussion.** Most participants confirmed the significant role of feedback discussion, which could help a student understand the exact intended messages of the provided feedback. For example, Cathy was so satisfied after meeting with her professor and discussing the written feedback. She thought this is an example of professor-student positive meetings, which are more likely to reflect empathy and motivate students to learn. Likewise, Jane stressed the vital role of her oral discussion with her professor.

However, students sometimes find it difficult to reach their professors. For instance, Emily could not reach back to her professor because she received late written feedback. Emily's example shows the necessity of providing early feedback to students because they require enough time to react on it. Maria, as well, did not have the opportunity to discuss with her professor the provided feedback. She thought she might waste his time. This example shows that sometimes a student needs to be motivated to request a feedback discussion meeting. Motivation becomes necessary if a student is not familiar with his or her professor.

On some occasions, meeting with a supervisor does not add to what has been written in the provided feedback. For instance, Laura did not get any additional information after meeting with her professor. Laura reported,

I want to say that yes, we met to talk about the feedback. But even in that meeting, he didn't mention that I have those problems, and never suggested that I should do one and two or three. The meeting was like a kind of process. It didn't add anything new.

On some other occasions, the written feedback, because of its negativity, could make a block between a professor and a student. For example, Mary had a course online and found that all the feedback she received on her assignment was negative as previously mentioned. She stated that

“I did not discuss the feedback with my professor. I read it and did what I had to do.” Mary’s example shows how crucial for a professor to be positive.

The above examples highlight how essential is a professor-student feedback discussion. More importantly, they stress the professor’s role in being helpful and positive while inviting and motivating students to come and talk. According to most participants, these actions could move a student forward in learning and could reflect empathy.

**Multiple Interpretations.** Being familiar with a person can affect how you read his or her messages. Maria, for instance, was not familiar with the professor who provided her with the written feedback. She thought he did not provide her with detailed feedback because he did not want to orient her in a specific way. Maria uses her assumptions in interpreting that provided feedback. One reason for this interpretation could be because Maria and her professor did not discuss the feedback. However, Maria thought that her assumptions did not work with all the other feedback points on her assignment because they failed to find an issue to be fixed and did not suggest solutions. Thus, Maria was confused and had to spend much time on that feedback. This shows how unspecific feedback can overwhelm a student because of the many interpretations that it could have.

Likewise, Cathy had a good relationship with her professor, but she thought that undetailed feedback could lead to extra burden on a student because of the many interpretations that it could have. Discussing feedback with professors could decrease the many interpretations of that feedback. Moreover, Emily was not familiar with the professor who provided her with the written feedback. He provided many details that led to many interpretations. Emily realised that all those unnecessary details were beyond the scope of her dissertation and she rejected that feedback. Mary also was not familiar with her professor. She had feedback full of circles,

arrows, and lines on her assignment that could be interpreted in more than one way. Mary did not discuss the feedback with her professor as previously mentioned. All the above examples show the burden on students of feedback that has multiple interpretations.

In summary, participants reported that teamwork, feedback discussion, and multiple interpretations are required issues when a professor seeks to help students to move forward in learning. Teamwork could be among professors when providing feedback to a student. It could also be between a professor and a student. The professor-student relationship can positively or negatively affect teamwork. Furthermore, feedback discussion can be positively or negatively affected by the role of a professor. Motivating, welcoming, helpful and positive professors are more likely to positively affect students. Participants believed these actions could reflect empathy.

Similarly, participants suggested that multiple interpretations can be minimized by the good relationship between a professor and a student. Moreover, unspecific, undetailed, or excessively detailed feedback is more likely to have many interpretations. Circles, arrows, lines, highlighting, and capital letters can have many interpretations if they are not accompanied by enough explanation. Participants thought that feedback with many interpretations is more likely to burden a student and could reflect no empathy.

***Empathy is Needed***

Every participant's voice echoed the importance of empathy in providing feedback. They believed that a professor's empathy can enrich student learning. To start with, empathy allows a professor to define student needs. This can help the professor identify an issue that needs to be improved in students' work. More importantly, participants thought that empathy enables a

professor to take care of student feelings. This could encourage students to act positively while improving the issue in hand.

Most importantly, participants agreed that empathy can help a professor to show a student the final goals and to offer suggestions on how to achieve them. Under this theme of “empathy is needed”, three sub-themes will be discussed: student needs, student feelings, and achieving goals

**Student Needs.** An essential step in establishing empathy is to understand student needs. For example, Mary described her experience with her professor, who provided her with feedback that failed to explain why some issues on her assignment are to be changed or fixed. Similarly, Jane described how the feedback on her assignment did not meet her needs because it underlined the issues to be improved, but it did not explain why. Likewise, Laura reported that the feedback she received did not meet her needs. After a while, being a non-native speaker of English, Laura realised that she had problems in writing. Laura thought that she could have avoided all these negative results, had her supervisor highlighted those issues earlier.

In the same vein, Mark thought that the unclear feedback that was provided to him by his first supervisor and by other committee members was frustrating. It also failed to meet Mark’s needs because it identified what to be improved, but it did not explain why. However, when Mark switched to another supervisor, Mark found the new supervisor to be more helpful. The new supervisor was able to identify Mark’s strengths and weaknesses. Mark’s written feedback analysed in this study was from this new supervisor. Furthermore, Maria’s feedback did not meet her needs or her hopes. Maria tried to make sense of the feedback she received. Although the feedback highlighted a problem to be solved, Maria was looking for more details or explanations of why that was a problem. That feedback overloaded Maria because she was looking for the missing “why”.

Similarly, Emily had feedback that did not meet her needs. She tried to understand how her professor was thinking when he provided that feedback. She thought the feedback she received on her assignment failed to meet her needs because it was beyond the scope of her dissertation. Thus, Emily was overwhelmed by that feedback. Lastly, Cathy stressed the idea that the written feedback on her assignment did not meet her needs. Cathy expressed her need for more detailed feedback, which could have improved her work.

In all the above examples, participants stressed that feedback could reflect empathy when it meets student needs in terms of “what is the problem and why” as first step. Feedback that fails to meet student needs could overload the student. Besides, feedback that goes beyond student needs could also overwhelm the student and become a barrier. Thus, failing to understand student needs could reflect no cognitive empathy.

**Student Feelings.** All participants agreed that feedback could reflect empathy if it takes care of student feelings. This feedback is more likely to reflect affective empathy in particular, which could encourage a student to move forward in learning. For example, Mary felt “very deflated” when she first read the negative feedback on her assignment. Moreover, the excessive use of repetition added to the negativity of the provided feedback. That negative feedback discouraged Mary from moving forward in learning with that professor. Similar to Mary, Emily expressed her dislike of the provided feedback. She used the phrase “out of the scope” to describe that feedback. Clearly Emily was unhappy by wasting all that time because she was sure she would not use the new knowledge in her in hand dissertation. She was sad because of the heavy load that the provided feedback put on her shoulders. Laura as well, was not pleased with the written feedback she received because it did not respect her feelings as a second language

learner. Likewise, Maria felt confused and overwhelmed after reading the feedback on her assignment because the professor who provided that feedback was not in her field.

Unlike the above mentioned participants, Jane was happy with the feedback she received from her second supervisor. She thought that the feedback encouraged her to move forward in learning. Jane's written feedback analysed in this study was from this second supervisor. Jane had to change her first supervisor. She reported,

I had lots of 'dramas' with my [first] supervisor because even about the methodology, he was suggesting something that didn't make sense at all. And it was not going to work. And then I had to convince him that what you're saying is not good. It does not resonate with what I am going to do.

Similar to Jane, Mark was delighted with the feedback on his assignment. According to Mark, the feedback he received from his new supervisor required more work, but Mark was happy with it because it was detailed. Mark believed that feedback motivated him to work harder. Likewise, Cathy was content with the feedback she had on her assignment because of the compliment and positive words used in that feedback.

The above examples show that feedback should take care of student feelings so that it could reflect affective empathy. On the one hand, Mary, Emily, Laura, and Maria were not pleased with the feedback they had on their assignments. The feedback made them feel disappointed and overwhelmed. That kind of feedback could reflect no affective empathy. On the other hand, Jane, Mark, and Cathy were happy and content with the feedback they received from their professors. The feedback could reflect affective empathy. Thus, all participants agreed that respecting student feelings is an essential step when providing empathic feedback.

**Achieving the Goal.** Most participants agreed on the importance of knowing student strengths to provide him or her with useful feedback that help them achieve their goals in a learning episode. Finding student strengths can help professors provide useful feedback that could reflect compassionate empathy, which could help students move forward in learning. For example, Mary focused on the importance of helping her find both her strengths and weaknesses so that she could build on strengths and improve her weaknesses. Mary believed that her professor might know that she was strong in writing a specific task, but he did not share that knowledge with her. Had the professor shared that knowledge with Mary, she could have moved forward and improved her learning. Likewise, Laura claimed that the feedback on her assignment did not help her because it failed in both finding the issues to be fixed and suggesting solutions for improvement. Laura had a desperate need to know her weaknesses as well as her strengths to achieve her goals and improve her learning.

Furthermore, Cathy thought that she needed more details in the feedback provided. She highlighted the importance for both the professor and the student to be on the same page. Cathy believed that familiarising students with the standards of a learning episode is more likely to help them meet those standards and achieve the goals of that episode. Similarly, Maria thought that the feedback she received was able to identify the issues to be fixed, but it did not tell why and how those issues are to be improved. The feedback Maria received indicated that the goal was missed and how to achieve the goal was also missing. Moreover, Jane believed that the feedback she received from her first supervisor had missed the goals because it did not identify an issue to be fixed or how to fix it. Additionally, Jane highlighted the mismatch of standards between her professor and herself.

Unlike the above examples, Mark had the most useful and detailed feedback among all participants. His feedback contained specific suggested solutions for fixing all the issues in his assignment and in moving him forward in learning. Mark had high confidence in his second supervisor and what she wrote. Mark was satisfied with her provided feedback.

In summary, almost all participants reported that the feedback they received on their assignments did not meet their needs. Participants were looking for help in identifying the issues to be improved in their assignments. They were eager to know why the issue in hand needs fixing. Similarly, if they write, for example, a good paragraph, they were equally eager to know how it has met the standards, to keep doing the same thing. This is more likely to reflect cognitive empathy.

Moreover, some participants had negative feelings when they saw the feedback they received, which put extra load on them and discouraged them to move forward in learning. That feedback is more likely to reflect no affective empathy. Some other participants had positive feelings when they saw the feedback on their assignments. This positive feedback motivated them and enriched their learning. It is more likely to reflect affective empathy.

Furthermore, the above examples indicate that, in a learning episode, useful feedback must be directed toward a clear goal that is shared between a professor and students. It must also contain clear suggested solutions that can help students fix all issues in hand and achieve the goal of a learning episode. This feedback is more likely to reflect compassionate empathy, which could enrich student learning.

### ***Prospective Barriers***

According to the participants in this study, providing useful written feedback is not an easy process. It requires time and effort. It also requires knowledge in technology. More

importantly, providing useful feedback calls on professors to willingly accept to read students' texts, spot all outstanding issues to be fixed, and suggest clear ways for improvement.

However, providing this feedback might become difficult for some professors due to certain prospective barriers. For example, some professors are loaded with outside class tasks. And some other professors have large classes. This theme of prospective barriers will be discussed under three sub-headings: feedback quantity and timing; class size and technology; and feedback being a responsibility.

**Feedback Quantity and Timing.** Participants asserted that the amount of the provided feedback and its timing are essential elements when providing useful feedback. Feedback quantity and timing contribute to making the provided feedback useful. However, it does not mean that a large amount of feedback necessarily leads to useful feedback and vice versa. Similarly, it does not mean that early or late feedback necessarily leads to useful feedback. For example, Mary received feedback on her assignment about two months from the final paper due-time. Besides, Mary believed that the amount of the provided feedback was sufficient. Mary reported that "Feedback quantity was enough because he was highlighting the things that he was unsure of; the things that he did not understand." She added, "Time was appropriate and this was part of an ongoing assessment." Quantity and timing appropriateness apart, Mary believed that the feedback received was negative because of the quality of that feedback. Mary said, "It was not too general, I think it was too negative. This was very catered towards the negatives and ONLY the negatives." Opposite to Mary, Cathy was satisfied with the feedback she received in terms of both quantity and timing.

For her part, Jane suggested that the number of feedback points should be manageable because the larger the number of feedback points, the more time and effort was needed. Jane's

received feedback in terms of quantity and timing was appropriate, but she placed more focus on feedback quality. As for Mark, both the feedback quantity and timing were appropriate. Mark highlighted his trust in his professor's decision regarding the feedback provided.

Unlike the above participants, Emily neither liked the quantity nor the timing of the feedback she received because it was unnecessarily detailed and it was too late. Emily was overwhelmed with that feedback in terms of both quantity and timing.

The above examples focus on feedback quantity and feedback timing in providing feedback and how they could reflect empathy or no empathy. For example, Mary was satisfied with the provided feedback in terms of quantity and timing, but the feedback was negative and demotivating, which may reflect no empathy. Likewise, Jane, Mark, and Cathy stated that they were also satisfied with the feedback quantity and timing and they received feedback that was useful, which could reflect empathy. Besides, Emily was the only participant who was unsatisfied with both the quantity and timing of the feedback she received, which could reflect no empathy. Thus, although feedback quantity and timing could be important players in making the provided feedback useful, there are other major players like feedback quality, which was discussed earlier.

**Class Size and Technology.** Some participants like Mary believed that large class size and technology, which refers to whether the written feedback was done using a digital tool and the feedback provider is familiar with that tool, could be a barrier to providing useful and timely feedback. Unlike Mary, Jane believed that a professor can provide useful feedback even if he or she has a large class. Moreover, Mark believed that large class and technology could only delay the provided feedback because of large number of students, but they should not affect its quality. He reported that "Class size may affect the feedback just in terms of the wait time to get the

feedback, yes. It gets longer time.” He added, “But in the quality of the feedback I got, no. my professor does not compromise on that.”

Additionally, Laura, Emily, Maria and Cathy believed that large class and technology do not affect the quality of the provided feedback. These participants thought that feedback quality, which is a major player in useful feedback, should not be affected by other secondary players like class size and technology. For example, Laura stated that “I don't think anything like class size or technology would have affected the depth and breadth of his feedback.” For another example, Emily said, “Class size is not an issue”. She added, “Technology was never a problem.” Thus, Mary was the only participant who believed that large class size and technology could affect the feedback quality and its usefulness. This could be because she was the only participant still taking classes.

**Feedback is a Responsibility.** Most participants agreed that providing useful feedback is the responsibility of the feedback provider. They reported that useful feedback should teach students and enhance their learning. This indicates that useful feedback should be formative. To achieve this goal, participants reported that professors are recommended to:

- a. Know the topic by educating themselves. For instance, Jane had a tough experience with her first supervisor because he did not know enough about her topic.
- b. Focus their feedback on content. For example, many of the feedback points that Cathy received on her PhD proposal were related to punctuation marks specifically.
- c. Remember that they are models that students will follow. Professors are advised to be humble. For example, Laura thought that the feedback she received reflected her supervisor's use of power. Likewise, professors should be punctual. For instance, Emily believed that providing students with late feedback can overwhelm them. Similarly, professors should respect students.

For instance, Laura highlighted that professors should choose appropriate vocabulary and structure when they address their students.

d. Be mentors. Professors should guide and advise student academic development. For instance, Mark focused on the importance of teaching students via feedback. Similarly, Laura focused on her supervisor's missing role, which overloaded her because she had to do everything by herself. More importantly, professors should show students the standards to be met by the end of a learning episode. For example, Emily thought her professor and she had different standards.

e. Show their interest in providing feedback. According to Maria, she felt happy after reading her professor's feedback because she felt his interest while providing that feedback. Unlike Maria, Jane believed that her professors were not interested in providing feedback on her PhD proposal because they provided her with only one or two feedback points.

f. Follow up with students. Most participants agreed that they needed their professors' follow up. For instance, Jane highlighted that her first supervisor did not follow up with her. Likewise, Laura stressed the importance of professors' follow up with students to discuss their provided feedback. Also Cathy did not act on her provided feedback before she met with her professor and discussed that feedback.

g. Show their care in their feedback. Most participants reported that useful feedback reflects its provider's level of care. For instance, Maria highlighted the idea that she felt empathy when talking to her professor, but she did not feel that empathy in his written feedback. This shows the mismatch between her professor's oral and written feedback. Moreover, Laura emphasized the importance of professors' care in providing feedback, which she could not find in her feedback.

h. Have mutual learning with students. Most participants reported that professors and students should take the opportunity to learn from each other. For example, Laura believed that

cooperation between professors and students can allow both of them to grow in learning. Furthermore, Cathy and Mary thought that feedback providing is like a conversation between the professor and the student. These examples show how essential it could be for professors and students to collaborate and enrich each other's learning.

In summary, useful feedback that could reflect empathy is possible, but there are some prospective barriers like feedback quantity and timing; class size and technology; and some other barriers related to feedback providers, professors in this case. Although some participants were satisfied with the feedback they received in terms of quantity and timing, they perceived that feedback as negative, not useful, and could reflect no empathy. Participants agreed that feedback quantity and timing were important issues in deciding its usefulness. However, feedback quality should have the main focus of feedback providers.

Moreover, most participants agreed that class size and technology could affect the usefulness of the feedback provided, but this did not apply to most of them as they did not have classes to attend. Besides, participants believed that useful feedback was the responsibility of professors. Participants described some suggestions that could help professors provide useful feedback: educate themselves about the topic in hand, focus on content, be a model, be a mentor, show interest while providing feedback, follow up with students, show care in your feedback, and have mutual learning with students.

### **Qualitative Analysis for Each Participant**

Seven participants were interviewed and asked whether or not they perceived empathy in the written feedback they received on their assignments. Four participants, Mary, Emily, Laura, and Maria revealed that they did not perceive empathy in the feedback they had on their works. Besides, three participants, Jane, Mark, and Cathy confirmed that they perceived empathy in the

feedback they had on their assignments. Here is how each participant perceived empathy of the written feedback with possible reasons why. Mary did not believe that the feedback on her assignment reflected empathy. She said “No, I don't think my professor empathized with me. I think it was seen as an essay rather than a student behind an essay.” Perhaps this is because she wanted full sentences instead of short ones, she did not receive any positive feedback, she was not familiar with the professor, and/or she did not discuss the feedback with the professor. Likewise, Emily did not perceive empathy on her received feedback. She reported that “I think in relation to this feedback in specific, I don't think empathy exists.” Maybe this is because she received late feedback, she received too detailed feedback that was beyond the limit of her study, she was not familiar with the professor, and/or she did not discuss the feedback with the professor.

Similarly, Laura did not perceive empathy on the written feedback provided on her assignment. She stated that

I don't think the professor empathized with me when he provided this feedback. Because first of all, like we saw, they're just statements. They're kind of orders. Do this, do this. And when he likes it, yeah, I like this introduction. Even when he says he likes it, he [says] awkward writing. But just saying that it's awkward, does not help and does not show any empathy at all.”

Although Laura and her professor had a good relationship, she did not perceive empathy in her received feedback for the above mentioned reasons and maybe more.

Maria, as well, did not perceive empathy in the written feedback provided on her assignment. She mentioned that “There isn't any evidence that he was empathizing with me?” She added, “Maybe it would have made the feedback easier to digest if there were evidence of

empathizing.” Perhaps this is because she was not familiar with the professor and his background in research, she did not receive detailed feedback to improve her learning, and/or she did not discuss the feedback with the professor.

Unlike the above mentioned participants, Jane perceived empathy in her received feedback. She stated that “... of course, I say, Yes, of course. But it's not just because of the written words; it's a combination of me knowing her. We had coffee together, we talked about different things.” Possibly this is because she had detailed feedback that met her needs and suggested ways for improvement, and/or she discussed the feedback with her professor. Similar to Jane, Mark perceived empathy in the provided feedback on his assignment. He reported that “The relationship with my professor affected the provided feedback in the empathy that I received in her feedback that could make her comments [friendlier] and more understandable.” Perhaps this is because Mark received detailed feedback that met his needs and suggested ways for improvement, he discussed the feedback with his professor, and/or he did not receive negative or late feedback. Unlike all the above participants, Cathy did not perceive empathy in the written feedback provided to her. Cathy revealed that “If I didn't have this relationship, if I didn't have all that background information, I would say no, this would not feel like very empathetic feedback.” Maybe this is because she did not receive detailed feedback to improve her learning. However, Cathy’s good relationship with her professor affected her perception of the provided feedback. Cathy reported that she perceived a low level of empathy in her feedback. To better understand the participants’ answers, the following sections will present how each participant has touched upon a few or all of the previously mentioned emerging themes and sub-themes (see Table 35 below).

*Mary*

Mary highlighted her professor's choice of using the interrogative form of structure while providing written feedback. She described the feedback she received "It was in the form of questions. So I knew exactly what he was referring to." When Mary was asked about the many short phrases on her assignment, she added, "I would have preferred the full sentences." Full sentences may have better met Mary's needs and reflected cognitive empathy.

Moreover, Mary could not find any positive feedback on her assignment which was not helpful for her. She described that feedback as follows: "This was very catered towards the negatives and only the negatives." As a result, it affected Mary personally and drove her to take decisions for the future. Mary continued,

The feedback did affect me in the sense of when I was thinking of other classes to take, I really didn't want to take any of his [courses] because when compared to other professors who gave me more personalized feedback to my needs as a human being, it discouraged me from taking his courses again.

Mary thought that the negative feedback she received affected her negatively. She preferred feedback that has both positive and negative points. She said, "I don't mind more negative things as long as the positive things are also there, so that I know it's not a completely terrible essay." Mary needed to know the positive things so that she can do them again in the future. A balanced feedback that consisted of both negative and positive points could have better met Mary's feelings and reflected affective empathy.

As for the theme of solidarity, Mary reported that she did not discuss the negative feedback she received with her professor. She said, "I read it and did what I had to do." Moreover, Mary was not familiar with her professor. She added that the feedback she received could be interpreted in more than one way. She said, "Circles, lines and arrows in the written

feedback are open for many interpretations and need to be explained.” Specific feedback that did not have many interpretations may have better met Mary’s needs and reflected cognitive empathy.

Further, for the theme of empathy, the negative feedback that Mary received did not meet her needs. When Mary was asked if the feedback provided to her reflected empathy, she answered that her professor did not empathise with her and he did not see the student behind the essay. Feedback that respected the human being behind the essay in hand may have better met Mary’s feelings and reflected affective empathy. Moreover, the negative feedback did not respect Mary’s feelings. She said, “When I saw the feedback for the first time, I felt very deflated. It was all comments about what was wrong with it.” Mary’s use of the word “deflated” reflected her negative emotions towards the negative feedback she received. She ended by saying, “I don’t believe he considered the student’s emotional needs that underlie learning.” Feedback that respected student emotional needs may have met Mary’s feelings and reflected affective empathy.

Likewise, the feedback did not provide any suggestions for improvement. Mary was dispartate to know what good points she had in her work because this could motivate her to proceed in learning. Mary said, “As a student, of course, I need to know what went wrong. But I also need to know what went right. Because then I can keep doing that.” This shows that highlighting Mary’s strengths so that she could build on them may have met her needs, improved her learning, and reflected cognitive and compassionate empathy. Mary reported that,

He has highlighted certain things like the ones in green, on page three. In the video, he said that he highlighted it for himself. It's not anything feedback related. But it still provided me [with] feedback [that is] in [a] sense of okay, this is what a reader will

pinpoint. If this was added on the side of the page like ‘I highlighted this because I, as a reader, find this very important and I was looking for it’ it would be more helpful.

Mary’s professor might have known that she was strong in writing a specific task, but he did not share that knowledge with her. Had the professor shared that knowledge with Mary, she could have moved forward and improved her learning. Sharing that knowledge with Mary could have reflected compassionate empathy.

**Table 35**

*Summary of the Themes and Subthemes that Emerged in each of the Participants’ Interviews*

Themes and Sub-themes	Participants	Mary	Jane	Mark	Emily	Laura	Maria	Cathy
Feedback Form and Content	Positive Feedback	✓	✗	✓	✓	✓	✓	✓
	Negative Feedback	✓	✓	✓	✓	✓	✓	✓
	Feedback Quality	✗	✓	✓	✓	✓	✓	✓
	Feedback Writing Style	✓	✗	✓	✓	✓	✗	✓
Solidarity	Multiple Interpretations	✓	✓	✗	✓	✓	✓	✓
	Feedback Discussion	✓	✓	✗	✓	✓	✓	✓
	Teamwork	✗	✓	✗	✗	✓	✓	✓
Empathy is Needed	Student Feelings	✓	✓	✓	✓	✓	✓	✓
	Student Needs and Strengths	✓	✓	✓	✓	✓	✓	✓
	What is the Issue?	✓	✓	✓	✓	✓	✓	✗
	What is the Goal?	✓	✓	✓	✓	✓	✓	✓
Prospective Barriers	Feedback Quantity	✓	✓	✓	✓	✗	✗	✓
	Feedback Timing	✓	✓	✓	✓	✓	✗	✓
	Class Size	✓	✓	✓	✓	✗	✓	✗
	Technology	✓	✓	✓	✓	✓	✓	✗
	Feedback is a Responsibility	✓	✓	✓	✓	✓	✓	✓

Finally, as for the theme of prospective barriers, Mary was satisfied with the feedback timing and quantity, but she added, “Time was appropriate and this was part of an ongoing assessment [and] feedback quantity was enough because he was highlighting the things that he

was unsure of; the things that he did not understand.” Although feedback quantity and feedback timing were appropriate for Mary, explaining why some issues were highlighted in the feedback provided may have better met Mary’s needs and reflected cognitive empathy.

Mary believed that class size and technology could have limited the effectiveness of the professor's feedback. She reported,

When you get like, over 20 essays like this, it's more difficult to think, okay, there's another student on the other side of this. Especially with online courses where the professor doesn't see the class. He doesn't actually see human people in a classroom.

Mary thought in person classes may have better met her feelings and reflected affective empathy.

Mary stressed the importance of collaboration among professors and students. She described the feedback process, “I feel feedback is like a conversation.” Being familiar with the professor could have better met Mary’s needs and feelings and reflected both cognitive and affective empathy.

***Jane***

Jane described her experience with her professors as “It wasn't an easy journey for me.” As previously mentioned, she started her PhD with one supervisor then after a while she had to switch to another supervisor. Jane had negative feedback from her first supervisor who literally said, “You are handicapped in research.” Jane had bad time. She described what happened next, “I was kind of confused or maybe angry for a couple of hours. And after that, I was like, okay, so it shows that I have to do my stuff myself. He's not going to be helpful.” As a result, Jane had to switch to a new supervisor. The analysed feedback in this study is the feedback provided by the second supervisor.

For the theme of solidarity, Jane stressed the idea of teamwork among professors and students. She said,

So I think it's a combination of not just one particular professor. It's the combination of all comments, both oral and written that all committee members give to you. For me, that's how it worked. Then I connected them together.

Jane believed that feedback resulted from teamwork among professors helped her see the big picture and could reflect compassionate empathy.

Additionally, Jane stressed the vital role of her oral discussion with her professor. She said, "The written comments and the oral ones are important. For me, the comments that I got in my oral exam defense were also very helpful." Jane's example shows how significant it is for the professor to use oral discussion side by side with the written feedback to motivate and enhance student learning. Professor-student discussion met Jane's needs and could reflect cognitive empathy.

For the theme of empathy, Jane talked positively about the feedback she received from her second supervisor. She said,

It's a kind of [an] eye opener, I can see the comments that she sent to me, I found them quite relevant and I felt happy. The feedback shows me that I'm on the right track. The comments are not questioning the foundations of my research.

This feedback encouraged Jane to move forward in learning. She reported, "I applied the feedback and prepared myself with answers." This feedback met Jane's needs by being relevant, respected her feelings, by making her happy and motivated for learning, and suggested ways for improvement. This feedback may reflect cognitive, affective, and compassionate empathy.

Moreover, Jane described the feedback from her second supervisor, “I think this professor gave me the best feedback because I thought, apparently, she cares more than the others. Oh, yes, compared with the others, she was the best.” Professor’s care may have met Jane’s needs, respected her feelings, and suggested ways for improvement. This feedback may reflect cognitive, affective, and compassionate empathy.

For the theme of prospective barriers, Jane said,

The quantity of feedback provided was handleable. You might receive so many feedback [points, but more time would be involved]. I think the number of comments is [very] important. But I'm not looking at the feedback [size], I'm just looking at how it's going to affect everything.

Jane’s example shows that the feedback quantity she received did not overload her. Similarly, she stated, “My professor sent my proposal back to me in a week, I think, with comments. So it was very good. It was fast.” Jane’s examples of feedback quantity and timing met her needs and could reflect cognitive empathy.

Likewise, Jane believed that a professor can provide useful feedback even if he or she has a large class. She said,

So maybe yes, class size has affected her maybe because she has other classes to teach like with all those assignments and everything but again, I think it's like the comments that she gave to me. They were to the point and they were okay. And she has good knowledge of the technology. Yes, she's good. I mean, I don't know at what level but I think she's good because she was teaching online courses and stuff.

Jane’s example shows that class size and technology did not affect her perception of the provided feedback as useful. This met Jane’s needs and could reflect cognitive empathy.

**Mark**

For the theme of feedback form and content, Mark reported that he had unpleasant experience with his first supervisor. The feedback that Mark used to get from that supervisor was negative. Mark said, “I was expecting some more positive [comments], like, showing me how to fix [an issue] because it was a start.” Mark explained how he felt after having the feedback from his first supervisor. Mark reported, “That feedback disappointed me a lot because no reasons, problems, or any suggestions for improving were mentioned.” That feedback may reflect no cognitive, affective or compassionate empathy. As a result, Mark switched to another supervisor who was more helpful. Mark said, “I am familiar with the professor who provided the feedback. It is just a teacher-student relationship. Not more than that. I was her TA a couple of times.” Unlike his first experience, Mark’s second experience with his second supervisor was better. Good teacher-student relationship met Mark’s needs and could reflect cognitive empathy.

Mark was happy with the positive feedback he received on his assignment from his second supervisor and he described how it positively affected his learning. He said, “Some expressions affected my learning positively when they encourage me.” This positive feedback met Mark’s feelings and could reflect affective empathy.

Moreover, Mark highlighted the way his professor provided feedback. He said,  
She was talking to me in a dialogue, like let's do this, how about doing that? Why don't you bring this to the upper side? Something like ...she is suggesting some kind of improvement for me, which sometimes does not necessarily happen with other professors.

Mark was fond of his professor's choices of using dialogue and suggestions over using other ways of addressing, for example, the imperative. Professor's choice of structure met Mark's needs and feelings and could reflect both cognitive and affective empathy.

In the same vein, for the theme of empathy, Mark highlighted the importance of knowing student needs. He said, "My professor understands my weaknesses." Understanding student weaknesses met Mark's needs and could reflect cognitive empathy.

When Mark was asked if the feedback he received reflected empathy, he answered, "The relationship with my professor affected the provided feedback and the empathy that I received in her feedback [made] her comments [friendlier] and more understandable." Mark's words show the good relationship between Mark and his supervisor and its positive effect on the feedback provided and how it was perceived. Mark added, "My supervisor is really supportive. She really helps you to push forward without disappointing you." Good relationship among participants, Mark and his professor in this case, met Mark's needs, respected his feelings, and could reflect cognitive and affective empathy.

Similarly, Mark was delighted with the feedback on his assignment. He described himself when he first saw the feedback by saying, "When I saw the feedback for the first time, my reaction was that it was a great feedback, detailed and very complete. I was happy." Although this feedback requires more work, Mark was happy with it. He added, "I was not happy that I had to make corrections, but I was happy that I got detailed feedback." The feedback Mark received motivated him to work harder. He said, "I tried to sort out the problem that was mentioned." After completing the task in hand, Mark realised how important that feedback was. He added, "Later, I understood that the feedback made sense. Then, as I continued, I figured out that it was necessary, and it could help my development. This happened because of my lack of

knowledge.” Detailed feedback met Mark’s needs, respected his feeling, and suggested ways for improvement, which may reflect cognitive, affective, and compassionate empathy.

Moreover, Mark highlighted how his supervisor was practically teaching him to finish tasks correctly. He had some issues while writing his Discussion Chapter. He said, “She wrote that first line, and I completed that chapter.” Guiding the student in research met Mark’s needs and could reflect cognitive and compassionate empathy.

Ultimately, Mark had the most useful and detailed feedback among all participants. His feedback contained specific suggested solutions for fixing all the issues in his assignment and in moving him forward in learning. Mark had high confidence in his supervisor and what she wrote. He said, “When she says good point, or when she says, okay good, she means this paragraph does not have a problem. It does not have any issues [needing fixing]. I can keep it as is.” Mark’s words show that he was satisfied with the provided feedback. Trust between Mark his professor met Mark’s needs, respected his feelings, and could reflect cognitive and affective empathy.

For the theme of prospective barriers, Mark had appropriate feedback quantity. He said, “The amount of feedback was perfect because the professor thought it was the exact amount needed.” Mark was satisfied with the feedback quantity he received. He added, “even if the feedback points were 80, it meant to me that I needed 80.” Feedback quantity met Mar’s needs and could reflect cognitive empathy. Mark’s words show his trust in his professor’s decision. Besides, feedback timing was appropriate for Mark. He said, “It was not too late. Not too early.” Feedback timing met Mark’s needs and could reflect cognitive empathy.

Likewise, Mark believed that large class and technology could only delay the provided feedback because of large number of students. He said, “Class size may affect the feedback just in terms of the wait time to get the feedback, yes. But in [terms of] the quality of the feedback I

got, no. My professor does not compromise on that.” Regardless of large class and technology that could delay feedback, feedback quality met Mark’s needs and could reflect cognitive empathy.

Lastly, useful feedback should teach students and enhance their learning. Mark said, “When you are a supervisor, that's different. Professors should teach you something in their feedback.” Formative feedback met Mark’s needs, improved his learning, and could reflect cognitive and compassionate empathy. Besides, Mark reported that professors should guide and advise student academic development via feedback. Mark said,

When you have a supervisor, your PhD supervisor or your Masters supervisor, they are your mentor[s]. They have teaching moments when they give you feedback. But [some] supervisors didn't care because they did not see themselves as mentors. Not many professors get to the level of teaching through feedback. [But] if they are supervisors, they have to, I guess.

Professor’s mentoring met Mark’s needs, improved his learning, and could reflect cognitive and compassionate empathy.

***Emily***

Emily was the only participant who believed feedback content was the main player and feedback form was the secondary one. Emily thought as long as the content was useful, she did not put a great deal of focus on the form. When Emily was asked whether she preferred her professor to address her by calling her name or by using pronouns like “she, her or your”, she said, “My focus was on the actual comments themselves. The content and what I need to do in order to address the main comments. I wasn't really focused on how they addressed me.” Emily was in her last stage of submitting her PhD dissertation, she was desperate for practical solutions

to finalise her work. Feedback that contains actions for improvement met Emily's needs and could reflect cognitive empathy.

Likewise, Emily revealed that she received one positive feedback comment that affected her positively. Her professor suggested to her to mention future researching gaps and policy implementation because they were missing from her research. Emily said, "I remember thinking that's a really good comment that's going to enrich my paper." Positive feedback that identifies a problem and suggests a solution met Emily's needs and could reflect cognitive and compassionate empathy.

Similarly, Emily indicated that she had negative feedback on her assignment, which made her take the drastic decision of ignoring that feedback. She said "I shouldn't probably put that much weight on those comments, you know, in other words, perhaps it's not in completely necessary for me to address them or integrate them into my thesis." Negative feedback did not meet Emily's needs, did not motivate her to proceed in learning, and could not reflect affective or compassionate empathy.

Additionally, Emily said "The feedback I received was too detailed." She had to ignore those details because they were beyond the scope of her study. Then, Emily described her professor "In terms of quality, I would rate him again three out of the four members. So he is in the second lower half." Irrelevant too detailed feedback did not meet Emily's needs, did not improve her learning, and could reflect no cognitive or compassionate empathy.

For the theme of solidarity, Emily could not reach back to her professor because she received late written feedback. She was in a hurry to deal with the feedback she got. She said, "I did not have time to discuss the feedback with my professor." Late feedback did not meet Emily's needs and could reflect no cognitive empathy.

Moreover, Emily was not familiar with the professor who provided her with the written feedback. They met in person one time four years ago, then they met two times online. Emily talked about the challenges she had with that professor who provided her with too detailed feedback. She described the professor, “He was the most challenging committee member to deal [with] just because of, I'd say how intellectually he is.” Emily realised that all those unnecessary details led to many interpretations that were beyond the scope of her thesis. Thus, she was obliged to reject that feedback. Being familiar with the professor and knowing why he provided all that too detailed feedback could have met Emily’s needs and reflected cognitive empathy.

For the theme of empathy, Emily had feedback that did not meet her needs. She said, “Perhaps he was thinking, well, I need to critically think a little more outside that box. But I personally, especially at this point, in my thesis writing, did not believe [that] that's what I required.” Feedback that identifies student’s needs could have met Emily’s needs and reflected cognitive empathy. Emily added,

I don't know whether he actually provided feedback in relation to my needs. Yeah, I think he was kind of going beyond what I really needed, especially at this point in my thesis.....His feedback was beneficial in some ways. But I think there are also some drawbacks associated with his feedback. It prolonged my studies.

That feedback overwhelmed and stressed Emily and wasted her time.

Likewise, Emily expressed her dislike of the provided feedback. She continued,

I would say it didn't affect me negatively, in the sense that I was disheartened, you know, felt terrible, or anything like that. I wouldn't say that. Okay, I would just say that some of the professor’s comments just seemed to be once again, I'm gonna say it, out of the scope.

Emily's use of the phrase 'out of the scope' shows the heavy load that the provided feedback put on her shoulders. She added, "His feedback, even pertaining to my comprehensive exams, was so different from what my other committee members suggested that, you know, I just had to make extensive revisions because of his feedback." Clearly Emily was unhappy by wasting all that time because she was sure she would not use the new knowledge in her current thesis. Feedback that meets student needs and cares for student feelings could have met Emily's needs, respected her feelings, and reflected cognitive and affective empathy.

Lastly, professors should show students the standards to be met by the end of a learning episode. For example, Emily said, "I think, in the professor's mind the feedback was appropriate." This reflects Emily's agreement that the feedback she received was inappropriate and more importantly it shows that both Emily and her professor had different standards. Sharing the goal(s) to be achieved by the end of a learning episode could have improved Emily's learning and reflected compassionate empathy.

For the theme of prospective barriers, Emily neither liked the quantity nor the timing of the feedback she received. She said, "In terms of quantity, I would rate this professor as three out of the four committee members. He is in the second lower half." As mentioned earlier, Emily reported that her feedback was beyond the scope of her thesis. Emily added, "But in terms of time, it was just six days prior to my defense date, which was too late. I was shocked." Focused and timely feedback could have met Emily's needs, suggested ways for improvement, and reflected cognitive and compassionate empathy.

Similarly, Emily believed that large class and technology do not affect the usefulness of the provided feedback. She reported, "Class size was not an issue and technology was never a problem." Emily's example shows that feedback quality, which is a major player in useful

feedback, should not be affected with other secondary players like class size and technology. Regardless of class size and technology, quality feedback could have met Emily's needs, improved her learning, and reflected cognitive and compassionate empathy.

Additionally, professors should be punctual. Emily said, "How late the feedback was given to me, I think, was more administrative in nature." This shows that providing students with late feedback can overwhelm them, which could reflect no affective empathy.

*Laura*

Laura believed that positive feedback helped her to move forward. She indicated that I think that a little bit of praise was like, yeah, I got it. This comment affects me positively. Even though he did not tell me why. But, as a student, my goal is to make my professor happy with my work. So when he gave me 'that's good', or 'I liked this', it was like, okay, there is hope.

Laura's professor's choice of using positive language met Laura's needs, respected her feelings, and could reflect cognitive and affective empathy.

Moreover, Laura's supervisor provided her with negative feedback. He used tough and imperative language that, according to Laura, reflected his use of power. Based on that feedback, Laura said,

I think they are not humble enough to see that it's not only their voice[s] that [I] have to follow. It's not only the way they think. [I] also have to have room to develop [my] own writing style as long as [this writing style] is understandable whether [they] like it, or not.

There is empathy. Feel and understand that I'm a second language learner.

The use of imperative language in the provided feedback did not respect Laura's feelings and could not reflect affective empathy.

In terms of feedback quality, Laura stated that

The feedback was too general. It was just like little sentences. He never mentioned the problem that I had in synthesis. So no, he did not mention the problem. He was just like [making] very superficial comments that didn't really contribute to my growth as a writer.

General feedback with few sentences did not meet Laura's needs, did not improve her learning, and could not reflect cognitive or compassionate empathy. Laura sought more detailed feedback from her professor, but the feedback she got was unspecific and undetailed. She added, "But maybe if he had given me little feedback like fewer comments, but more in depth, I thought they were just like, Okay, I'm reading this, here it is." Detailed and focused feedback could have met Laura's needs, improved her learning, and reflected cognitive or compassionate empathy.

For the theme of solidarity, Laura described an important angle in her research that her supervisor did not highlight, but another professor did. She said, "It was just another professor that brought it up." This example shows that collaboration among professors met Laura's needs and could reflect cognitive empathy.

On the other hand, teamwork between a professor and a student can help both of them fill in the gaps. For example, Laura said,

And maybe because of that relationship influence, I was accepting whatever comes from that professor. Even if they are short and not enough, and sometimes not important, but because of the relationship, you accept them, and you want things to go on.

Good relationship among participants, Laura and her professor in this case, met Laura's feelings and could reflect affective empathy. She ignored any feedback shortage by her professor because of their good relationship.

Likewise, Laura did not get any additional information after meeting with her professor.

She said,

I want to say that yes, we met to talk about the feedback. But even in that meeting, he didn't mention that I have those problems, and never suggested that I should do one and two or three. The meeting was like a kind of process. It didn't add anything new.

Effective meetings between Laura and her professor could have met her needs, improved her learning, reflected cognitive and compassionate empathy.

For the theme of empathy, Laura reported that the feedback she received did not meet her needs. She said,

The feedback was never consistent with what I have hoped for to support my learning. That kind of feedback made me wonder how I was going to go through and write a thesis with that kind of feedback. There was nothing for me in the feedback that showed that my professor understood my needs or weaknesses. There was nothing there.

Laura's example shows how the feedback did not meet her needs and reflected no cognitive empathy. Laura stated that she did not realise that she had some problems in academic writing. Her supervisor had never mentioned anything about those problems. She said, "I find that he did not tell me when I was taking courses. And when I did the comprehensive exam, that mistake was carried on the first time and the second time, and the third time." Highlighting student needs earlier could have met Laura's needs and reflected cognitive empathy.

Similarly, Laura was not pleased with the written feedback she received. She said,

When I first saw the feedback, I was not very happy. Because first of all, [the comments] did not really help me improve my writing or my knowledge, and they were very short comments..... And even though I do speak English well, I think there will be times that

I don't because of something new I have to learn. So be aware that we are not all native speakers of English.

Detailed feedback with full sentences could have met Laura's needs, respected her feelings, and improved her learning, which could have reflected cognitive, affective, and compassionate empathy. However, in spite of the feedback being unhelpful and consisted of short meaningless comments, Laura acted on every single comment that made sense to her. She added,

I acted on the feedback. I did try. Sometimes I said, but this is how I think and then we debated and either he convinced me or not. But [at] other times, if the comments made sense, even though they were just like little short statements. I went on and I fixed it. Once it was brought up to me and I started learning about the problem, I myself went and I looked for videos and read stuff, then I realized, okay, this is how you have to do it.

Logical comments that made sense to Laura met her needs and reflected cognitive empathy.

Additionally, Laura claimed that the feedback on her assignment did not help her. She said, "And as he didn't mention the problem, he didn't suggest any solutions. And then the problem went on and on. He didn't help me fix it." Laura provided two more examples to make her point. Firstly, she said,

Sometimes he wrote, like, Oh, this is good. I like this. But I never knew why. I was expecting something like "I like this strategy because it shows one, two, three and four. I am suggesting a new strategy that may help you more". But he never suggested anything for improvement. He wrote very superficial statements, and that really didn't help me.

Secondly, Laura said,

A statement like 'This is [a] strong section' does not help me. I need to know why. Tell me something like it is strong because you said one, two, three, and four or you

mentioned so and so. And you started with this and you ended with that. Something like that can help me do it again.

Lastly, Laura reported, “Again there is nothing in the feedback that shows that my professor understands my strengths.” Identifying Laura’s weaknesses as well as her strengths could have met her needs, respected her feelings, improved her learning, and reflected cognitive, affective, and compassionate empathy.

Regarding the theme of prospective barriers, Laura believed that large class and technology do not affect the quality of the provided feedback. She said, “I don’t think anything like class size or technology would have affected the depth and breadth of his feedback.” This shows that feedback quality could have improved Laura’s learning and reflected compassionate empathy regardless of class size and technology.

In the same vein, Laura believed that professors should be humble because they are models to be followed. She reported,

We as educators, we are going to train teachers who are going to go in classroom[s]. We have to show with our own actions that we are humble. So the teachers go in the classroom don't think that they know everything and the students know nothing. So it's our example that is going to lead the new teachers into the classroom. But if we think that we're the best, and there is nobody else who can be the same as us, or who can be better or different, education is never going to change.

Being humble and respecting students could have met Laura’s feelings and reflected affective empathy.

Similarly, Laura thought that professors should respect students. She described the way her professor talked to her,

His use of language, for example, avoid passive voice, don't be afraid, be clear, do this, and do that shows that as a professor, he thinks he knows everything. And I am the student. I do not know anything, even though he came across as a very open person. It didn't really matter how he wrote, I had to accept because I don't have any other options. She added, "So he's putting himself above everybody and everything. It's his way of writing, not my way of writing. And he's not respecting [my way of writing]." Laura's professor's choice of words did not respect Laura's feelings and could not reflect affective empathy.

Similarly, Laura described the missing role of her supervisor. She said, "[Your supervisor] is supposed to guide you [and] not to do the work for you. But [when] he is not doing his job, you're doing it all [by] yourself with the little time that you have." Laura's professor's guiding role could have met her needs, improved her learning, and could reflect cognitive and compassionate empathy.

Moreover, Laura emphasized the importance of professors' care in providing feedback. She said,

Many times what I find is that they say something at the top. And then I answer the question later down the page. And so when I read him, like, he's out to lunch, because I commented on this at the bottom, so he doesn't say, Okay, you have answered what I have asked on top. He doesn't say anything.

Laura's professor's care could have met her needs, respected her feelings, and reflected cognitive and affective empathy.

Lastly, Laura thought that professors and students should take the opportunity to learn from each other. She reported, "Not everybody makes the same mistakes. We're all different humans. Try to know your student. We have weaknesses, and we have strengths. So try to know

and then we can grow together.” Cooperation between professors and students could have met Laura’s needs, improved her learning, reflected cognitive and compassionate empathy.

*Maria*

Maria explained that she had some examples of positive feedback that helped her learning. She reported,

At some point, he writes, ‘this idea is introduced here for the first time’. So that was quite specific. And it was clear to me because I think [that] I shouldn't be introducing new concepts that late in the thesis... So, it was helpful feedback because it was straightforward. It was clear to me what I had to do with that. Either omit it or include it earlier. That is an example that affected my learning positively.

This shows that positive feedback met Maria’s needs, suggested solutions for improvement, and could reflect compassionate empathy.

Similarly, Maria tried to look positively at the received feedback. She reported, “I felt like it was the kind of feedback that tries to push my thinking, instead of telling me I want things done this way.” Feedback that provides suggestions for improvement rather than pushing students to think in a specific way met Maria’s feelings, improved her learning, and could reflect affective and compassionate empathy.

Furthermore, Laura thought negative feedback could hinder her learning. She reported, I'm looking at a question that asks, ‘What is this?’ I thought, ‘Was that too bad?’ Some sentences like that had negatively affected my work, my writing, and my engaging with the writer because I didn't know if he was asking me to clarify what this is, or whether he's asking something like, where is this coming from? And it doesn't fit here.

Negative feedback resulted from professor's choice of words and/or structure did not meet Maria's feelings, and could not reflect affective empathy.

Additionally, Maria explained that she accepted the feedback she received because she was a PhD level and she wanted to depend on herself. She said, "If this feedback was at the undergraduate level, I wouldn't appreciate it." This is because the feedback was not easy to deal with. She added, "There were some feedback comments given, but they were not so helpful. So you had to do some more work to know exactly what the feedback provider wanted" Identifying the exact problems and explaining why could have met Maria's needs and reflected cognitive empathy.

For the theme of solidarity, Maria stated that she had four committee members and each of them focused on a different aspect of her thesis. This was helpful for her. According to Maria, There [were] three people in my committee. They care[d] about different things. So this person cared a lot about writing and how clear it [was], and about some theoretical [aspects]. Another committee member care[d] a lot about the methodological aspects of my work. And my third professor care[d] about [purely] theoretical stuff. So I definitely felt that I have to meet the expectations of all three of them. But I felt very happy and relieved that these expectations weren't about the very same things. [They] weren't contradicting each other because that could also have happened. And each of the three professors gave me feedback about a different aspect of the thesis.

Maria also highlighted the idea that for feedback to be useful, especially when it is provided by different professors, it should not contradict one another. Teamwork among professors met Maria's needs, suggested ways for improvement, and could reflect cognitive and compassionate empathy.

Likewise, Maria was not familiar with her professor and did not have the opportunity to discuss with him the provided feedback. Maria said,

I didn't discuss this feedback with my professor because I didn't know this professor well. I had only met him once during a committee meeting. And although he was approachable, I guess I find that if I sent him an email asking him to discuss something, maybe it would spend too much of his time.

Feedback discussion could have met Maria's needs and reflected cognitive empathy. This example shows that sometimes a student needs to be motivated to request a feedback discussion meeting. Student Motivation becomes necessary if a student is not familiar with their professor.

Similarly, being not familiar with the professor who provided her with the written feedback, Maria had to interpret some of the feedback based on assumptions. She explained, "The fact that I know who the person is, and I have certain expectations of them, and I know some things about them, it impacts and influences a lot the way that I am reading the feedback." She reported her interpretation of an unspecific feedback point she got on her assignment. Maria said "I got the sense that he maybe didn't want to be very specific in the sense that he didn't want to orient me in a specific way." One reason for this interpretation could be because Maria and her professor did not discuss that feedback. Feedback discussion and getting familiar with the professor could have met Maria's needs and reflected cognitive empathy.

However, in another example she found it difficult to put up with unspecific feedback points. Her professor provided a feedback point that says "example." Maria was confused and added,

I guess the word 'example', is one set. I was thinking, do you actually want me to write an example of that? Or do you want me to clarify, or are you unsure about whether what

I'm talking about is true? Or is valid? Or you're just asking about the validity of my claim in that way. So I guess that these short sentences are often very tough and kind of being interpreted in different ways. Especially when the feedback is written, and you can't see the expression of the person. And you can't really tell why or what they're thinking.

This shows that specific and focused feedback could have met Maria's needs and reflected cognitive empathy.

For the theme of empathy, Maria's feedback did not meet her needs or her hopes. She said,

This professor is not very familiar with mathematics education literature. So he had a lot of comments that they didn't look similar to the comments that the other members of my committee sent me. That's why I say I was surprised because I didn't quite anticipate this form of feedback.....I tried to understand, first of all, where his comment was coming from and why he was asking for clarification. Often, that was not very clear to me.

Maria tried to make sense of the feedback she received, but she was overwhelmed. Although the feedback highlighted a problem to be solved, Maria was looking for more details or explanations of why that was a problem. She continued, "I was not exactly sure what the problem with the original text was." Moreover, this feedback overloaded Maria because she was looking for the missing "why". She stated,

I was confused in the sense that there were some sentences where I thought that I had done a pretty good job explaining what he meant. But he was asking for examples. And it was clear to me that my point wasn't communicated well enough.

This shows that feedback, which identified an issue to be fixed and explained the why, could have met Maria's needs and reflected cognitive empathy.

When Maria was asked if the feedback she received reflected empathy, she answered, There isn't any evidence that he was empathizing with me, I guess. But I'm trying to remember, I don't think it was something that I needed. Maybe it would have made the feedback easier to digest if there [was] evidence of empathizing.

Feedback that provided the “what” and “why” could have met Maria’s needs and reflected cognitive empathy.

In the same vein, Maria felt confused and overwhelmed after reading the feedback on her assignment. She described her feelings by saying,

I guess I was mostly surprised and confused. I thought, so this is a professor who is not in my field. It was also hard for me to understand what was going on, it was very confusing. Sometimes I felt overwhelmed....., Emotionally, it had both positive and negative aspects, I guess.

Feedback provided by an insider who knows the field in hand could have met Maria’s needs, respected her feelings, and reflected cognitive and affective empathy.

Although spending some time on reading the student’s assignment and suggesting some ways for improvement is part of a professor’s work, Maria gave credit to her professor for doing those job tasks well. She said, “At a more emotional level, reading this feedback I kind of see that he has spent time reading it and thinking about it. And that was helpful for me.” Besides, Maria was happy because she was not given mandatory solutions to follow in solving the issues on her assignment. She added, “I also appreciated that I had the freedom to work by myself on improving the [various] paragraphs where there seem to be a problem.” However, Maria’s words show that the feedback she received did not suggest solutions for improvement. She was left to find the solutions by herself, which confused and overloaded her. This shows that feedback

which suggested ways for improving could have enriched Maria's learning and reflected compassionate empathy.

Additionally, Maria described her experience with the feedback she received,

Very often, I felt overwhelmed working with this kind of feedback because most of the comments were quite short. So I wasn't sure what this person had in mind. As if everyone has his own or her own standards, and you as a student, have to meet those standards.....This feedback made clear for me what my problem was, but what it didn't have was clear solutions about how to solve it.

Consequently, Maria had to keep trying and wasted much time till she finally found by herself her missing solutions. Maria had to ask help from outsiders. She explained,

In two or three cases where I wasn't sure if I had done a good job, I also asked somebody to read that part of the text in order to tell me whether my point was [getting] across or not. And at the end of the day, I was not so sure even after doing the job. I was not so sure if this is what he meant or not because his instructions were not so clear. He didn't say there's a problem in this, [and] I suggest doing [it] this [way] to reach at this point. So I don't know the way.

Maria's words show that again her professor and she were on different wave lengths. The feedback Maria received indicated that the goal was missed and how to achieve the goal was also missing. Identifying the goal to be achieved and providing feedback that suggested how to reach that goal could have met Maria's needs, improved her learning, and reflected cognitive and compassionate empathy.

Regarding the theme of prospective barriers, Maria believed that class size and technology do not affect the quality of the provided feedback. She said,

I think that was what he intended. That was the kind of feedback that he intended to send me. I don't think he is the kind of professor who would send me a more detailed feedback. This wasn't part of the class. So in my situation, I guess it has to do with how overwhelmed the professor [was] with other duties and everything. But I haven't worked with this professor as much to know that if under different circumstances, he would give me more detailed feedback.

This shows that detailed quality feedback could have met Maria's needs, suggested ways for improvement, and reflected compassionate empathy regardless of class size and technology.

Moreover, Maria thought that professor should show interest in providing feedback. She said,

After finishing the first reading of his feedback, I felt quite happy because going through the text, I got the sense that he spent quite some time reading it and he tried to give me feedback that was valuable. So I felt I guess, happy about that. Considering that it was from a person who I found to be very kind and who had read my text, who could spend time on that, and who had been positive. Because if this feedback was given to me, by a person who was very negative and strict and everything, I probably wouldn't be telling you the same stuff that I'm telling you now.

Professor's interest in providing feedback respected Maria's feelings and could reflect affective empathy.

Lastly, Maria believed that professors should show their care in their feedback. She explained that she met with her professor during her defense. She said, "So I did think that there was some evidence of empathy from his point of view, but trying the written feedback, I wouldn't say that." Maria's example shows the mismatch between her professor's oral and

written feedback. She noticed that the oral feedback reflected empathy, but the written feedback did not. Showing care while providing written feedback could have respected Maria's feelings and reflected affective empathy.

*Cathy*

Cathy reported that the feedback could have affected her negatively, but it did not because of her professor's choice of using short declarative positive statements. Cathy stated that "The quality of this feedback did not stop my learning because they are positive comments. They're short declarative positive statements, so not so much." This shows that feedback that employed short declarative positive statements met Cathy's needs, respected her feelings, and could reflect cognitive and affective empathy.

Moreover, Cathy felt the importance of positive feedback. She said,

When he says that my work might get published, and he says that 'I've earned leeway because of my prior performance', I would say that those kinds of comments have made me feel more confident. In following my own projects and my own research as I see fit, I would guess that would be a positive outcome.

Positive feedback respected Cathy's feelings and could reflect affective empathy.

Furthermore, Cathy reported that the feedback she had on her assignment was not a great feedback. However, it worked because it was affected by so many outside issues. She said,

I guess overall, I would say that even though it has its weaknesses, taken as a whole, if you include our relationship, you include the seminar, you include that I'm ready to defend, then, overall, it has worked out. Though, I don't know that this is a particularly great example of feedback.

External issues like the relationship with the professor reduced any negative effects in the provided feedback, respected Cathy's feelings, and could reflect affective empathy.

For the theme of solidarity, Cathy talked about her good relationship with her professor. That relationship motivated her to overlook any feedback shortcomings and to fill in any feedback gaps. She said,

But if I didn't have this background relationship with the professor, if I was just reading this, then I would feel that most comments were about punctuation, grammar, the indentation of the citations. All professors are very busy. So maybe he knew that I would fill in the gaps because we have a strong relationship.

This shows that Cathy not only filled in the gaps, but also she found excuses for the shortcomings of feedback by her professor. According to Cathy, although the feedback on her assignment reflected "a low level of empathy", she accepted it. This shows that feedback that was provided on the basis of good relationship among participants, Cathy and her professor in this case, in addition to teamwork respected Cathy's feelings and could reflect affective empathy.

Additionally, Cathy was so satisfied after meeting with her professor and discussing the written feedback. She said,

My professor and I sat and discussed the provided feedback. This impacted me positively because then we had an opportunity to expand upon some of these points that are so short. So, and also, I could read his tone. I could see his body language that he was obviously responding very positively to the project. His questions were more organic.

This shows that feedback that was followed by professor-student positive meetings and discussions respected Cathy's feelings and could reflect affective empathy.

Likewise, Cathy shared a comment that was provided on her assignment,

The professor has highlighted two words interact complexly, and the comment from him says 'vague phrase'. I'm not sure if he means, this phrasing is vague, but I don't mind you should leave it or this phrasing is vague, and I'm not sure what your sentence really means. I didn't know exactly where to go with that kind of comment. That's why I wished for more detailed feedback.

This shows that detailed feedback could have met Cathy's needs, suggested ways for improvement, reflected cognitive and compassionate empathy. Cathy accepted that feedback after discussing it with her professor.

For the theme of empathy, Cathy stressed the idea that the written feedback did not meet her needs. She said,

Well, if we're just talking about the written feedback, then I would say almost nothing in the feedback shows that my professor understands my needs and weaknesses. But the first comment that gets at my actual work and not just sort of punctuation or short compliments. And here's the first time he's offering me a bit of depth with that, and maybe even giving me a suggestion on something I hadn't thought of.

This shows that feedback that focused on understanding student weaknesses and strengths could have met Cathy's needs and reflected cognitive empathy. Cathy added, "Well, it would have been pleasant to have some more detailed feedback because it's such a big document." This indicates that providing detailed feedback could have suggested ways for improving Cathy's learning and reflected compassionate empathy.

When Cathy was asked if the feedback on her assignment reflected empathy, she answered,

If I didn't have this relationship, if I didn't have all that background information, I would say no, this would not feel like very empathic feedback. Because my professor and I have that background, I didn't feel dismissed when I read the feedback because I could almost sort of hear his voice in my head. And I could picture him just saying it more casually. Maybe it doesn't read very casually. Now that I'm looking at it with a new perspective, I don't have any examples that show empathy, but I'd say it's still the [lowest] level of empathy.

This shows that Cathy's feedback, which was based on her good relationship with her professor, respected her feelings and could reflect affective empathy.

In the same vein, Cathy was content with the feedback she had on her assignment. She said,

I was very pleased when I received this particular piece of feedback on this thesis proposal. Yeah, I was proud of this project that I presented to my professor. And of course, he is being mostly complimentary. So it's easy to feel happy. My professor and I have a good relationship. So I assume that he thought I would read his feedback, in good faith that I would know he meant well.

This shows that feedback that was based on the good relationship between Cathy and her professor respected Cathy's feelings, motivated Cathy to proceed in learning, and could reflect affective empathy. Her words reflected the happiness she felt when she read that feedback. However, Cathy acted on that feedback after discussing it with her professor. She said, "So when I read this exact feedback I did nothing until the seminar." This shows that feedback that had more details and explanations could have suggested ways for improvement for Cathy and reflected compassionate empathy.

Furthermore, Cathy explained her need to know the goal to be achieved by the end of a learning episode. She said, “When he says “Well put” I can guess that he means the preceding sentence sort of meets his standards, but I'm not sure based on this comment what those standards are exactly.” This example shows that both the professor and the student were not on the same page. Feedback that focused on familiarising Cathy with the standards of the learning episode in hand could have helped her meet those standards and achieve the goals of that episode, and reflected compassionate empathy.

For the theme of prospective barriers, Cathy was satisfied with the feedback amount she received. She commented, “Overall, I think it's an acceptable amount of feedback provided.” Moreover, although Cathy received the feedback a few days before her seminar, she thought the timing was appropriate. Cathy added,

This feedback was provided to me a few days before the proposal seminar. But because I have that background knowledge of when the seminar occurred, I would say that it was perfectly timed, because I was able to read it and reflect on it before speaking with him.

This shows that feedback quantity and timing met Cathy’s needs and could reflect cognitive empathy.

Likewise, Cathy believed class size and technology have little negative effect on the usefulness of the feedback provided. She stated that “There was no classroom because it was the proposal. So I'd say here very little, it's a pretty direct. So we were able to meet face to face. There was no zoom or whatever.” Class size and technology did not have any effects on the feedback provided to Cathy.

Besides, Cathy thought that professors should focus their feedback on content. For example, many of the feedback points that Cathy received on her PhD proposal were related to punctuation marks specifically. She explained,

The message is more important than the [medium]. For example, a paper can be edited so that the grammar is perfect. But if it's the content that you disagree with, that's always more useful to a writer. I guess that too many grammar-[oriented] feedbacks, usually just make people feel discouraged.

Detailed feedback that focused on content rather than punctuation marks could have suggested ways for improvement for Cathy, and reflected compassionate empathy.

Lastly, Cathy believed that professors and students should take the opportunity and learn from each other. Cathy described feedback providing by saying, “And I saw it as sort of a conversation between the professor and myself.” This indicates that feedback that focused on mutual learning among Cathy and her professor suggested ways for improvement for all parties and could reflect compassionate empathy.

### **Summary**

All participants agreed that useful written feedback for learning can be achieved by professors, but its usefulness can be affected by the following emerging themes from interviews: Feedback form and content, solidarity, empathy, and prospective barriers like class size, technology, feedback quantity, and feedback time. Moreover, most participants suggested that professors, as feedback providers, are the only ones who can decide how useful their provided written feedback will be.

More importantly, when participants were asked whether or not they perceived empathy in the written feedback provided on their assignments, four participants answered, “No” and

three participants answered, “Yes”. Mary did not perceive empathy in her feedback because it treated her as an essay behind a screen rather than a human being. Perhaps this is because she wanted full sentences instead of short ones, she did not receive any positive feedback, she was not familiar with the professor, and/or she did not discuss the feedback with the professor. Likewise, Emily did not perceive empathy on her received feedback. Maybe this is because she received late feedback, she received too detailed feedback that was beyond the limit of her study, she was not familiar with the professor, and/or she did not discuss the feedback with the professor.

Similarly, Laura did not perceive empathy on the written feedback provided on her assignment. Perhaps this is because the feedback uses the language of imperative, and/or the feedback was general and uses short comments. Maria, as well, did not perceive empathy in the written feedback provided on her assignment. Perhaps this is because she was not familiar with the professor and his background in research, she did not receive detailed feedback to improve her learning, and/or she did not discuss the feedback with the professor.

Unlike the above mentioned participants, Jane perceived empathy in her received feedback. Possibly this is because she had detailed feedback that met her needs and suggested ways for improvement, and/or she discussed the feedback with her professor. Similar to Jane, Mark perceived empathy in the provided feedback on his assignment. Possibly this is because Mark received detailed feedback that met his needs and suggested ways for improvement, he discussed the feedback with his professor, and/or he did not receive negative or late feedback. Unlike all the above participants, Cathy did not perceive empathy in the written feedback provided to her. Maybe this is because she did not receive detailed and focused feedback to improve her learning. However, Cathy changed her mind and said that she perceived a low level

of empathy in her feedback. That is because of her good relationship with her professor, which affected her perception of the provided feedback.

In the same vein, the perception of empathy in the written provided feedback to students could be improved. For example, specific feedback that had full sentences may have better met Mary's needs and reflected cognitive empathy. For a second example, professor's choice of structure may have respected Laura's feelings, and reflected affective empathy. For the last example, focused and timely feedback could have met Emily's needs, suggested ways for improvement, and reflected cognitive and compassionate empathy.

### **C. Results Integration**

The aim of this study was to identify how each of the three language aspects, (field, tenor, mode) of the written feedback provided to graduate students, reflects empathy and how empathy is perceived by those students. The quantitative data presented above provided us with answers to the first research question (i.e., 1. How each of the three language aspects, (field, tenor, mode) of the written feedback provided to graduate students, reflects empathy?).

This integration mainly answers the second research question (i.e., 2. When is feedback perceived as reflecting empathy?). Results from the written feedback and results from the interviews were compared to examine the relationship among empathy, linguistic style and perception of feedback. It also justified participants' answers on perceiving empathy or no empathy on their assignments. To achieve this goal, the Mean of ideational meanings 1, ideational meanings 2, interpersonal meanings 1. Interpersonal meanings 2, textual meanings 1, textual meanings 2, appraisal meanings 1, appraisal meanings 2, compassionate empathy level, and other levels of empathy for every assignment (AM) were compared and contrasted with the interview data for each participant.

**The Second Research Question: When is Feedback Perceived as Reflecting Empathy?**

In this study, results integration indicated that students may perceive the written provided feedback as reflecting empathy in at least three scenarios: 1) The feedback should meet student needs, 2) It should respect student feelings, and 3) The feedback should provide actions or suggestions for improvement. The following sections will present how each of the participants perceived empathy.

***Mary***

Table 28 above shows that Mary's AM values for Id. M. 1 and Id. M. 2 were drastically less than the SM values for Id. M. 1 and Id. M. 2, which presents the lack of cognitive empathy in Mary's feedback. Ideational meanings are used to describe what, where, when, why, how as previously discussed in the Methodology Chapter. Results from interviewing Mary positively correlated with these quantitative results. According to Mary, the provided feedback simply failed to answer her needs and it failed to communicate to her why some issues are to be fixed and/or why some other issues are accepted and meet the standards of a learning episode. For an example of low ideational meanings is the lack of using verbs. Mary reported that "Circles, lines and arrows in the written feedback are open for many interpretations and need to be explained". This example reflected no cognitive empathy. Mary reported that she was confused because she did not know what to do with those arrows, circles, lines, or even the highlight on her feedback (see Appendix N for Ideational Meanings for Each Text).

Table 28 also presents that Mary's AM values for Int. M. 1 and App. M. 1 were extremely low compared to the SM values for Int. M. 1 and App. M. 1. This shows the lack of positive respectful communication. As previously described, interpersonal and appraisal meanings are used to describe the relationships among participants, Mary and her professor in

this case. One example of employing interpersonal meanings is calling the student by their name, which did not happen in Mary's case (see Appendix O for Interpersonal Meanings for Each Text). In the same vein, Mary's AM for App. M. 2 was higher than the sample, which presents the negative communication in the feedback. Results from interviewing Mary show that she did not receive any positive feedback on her assignment. Thus, the absence of positive communication and the presence of negative communication show no affective empathy. Mary reported, that "Empathizing would be understanding, at least to some degree, how the receiver of the information would feel, and how the receiver would take the information and process it". That feedback that Mary received did not respect her feelings and demotivated her to move forward in learning because it was all negative and it did not have one single positive comment. This shows a positive correlation among quantitative and qualitative results (see Appendix P for Appraisal Meanings for Each Text).

Moreover, Table 28 shows that Mary's AM values for Text. M. 1, Text. M. 2, and Comp. Emp. were drastically low compared to the SM values for Text. M. 1, Text. M. 2, and Comp. Emp. This shows the lack of detailed explanation and suggested actions for improvement on Mary's assignment. Textual meanings are used for explaining and providing details and examples about the issue in hand as previously discussed. For an example of negative textual meanings is the unnecessary repetition. Mary reported, "Repetition of one phrase, one after the other, made it seem like he was frustrated. And I felt bad." The excessive use of repetition added to the negativity of the provided feedback. Another example of low textual meanings is the lack of explanation, examples, or long detailed sentences. Mary sought detailed actions for improvement, but she could not find any (see Appendix Q for Textual Meanings for Each Text and Appendix R for Clauses for Each Text). Both qualitative and quantitative results confirm

that Mary's feedback did not contain one single example of compassionate empathy (see Appendix S for Empathy for Each Text).

### *Jane*

Table 29 above shows that the Mean value for Id. M. 1 for Jane's assignment was almost similar to the SM value. Moreover, the Mean for Id. M. 2 for the assignment was lower than the Id. M. 2 for the sample. This positively correlates with what Jane reported in her interview. She said, "The feedback shows me that I'm on the right track". This feedback reflected cognitive empathy because it helped Jane to identify what issues to be modified and why. One example of ideational meanings 1 is the use of Passivization, where the professor used passive sentences more than active ones (see Appendix N for Ideational Meanings for Each Text).

Moreover, Table 29 presents that Jane's AM values for Int. M. 1 and App. M. 1 combined were higher than the Int. M. 1 and App. M. 1 combined for the SM values. Similarly, the AM values for Int. M. 2 and App. M. 2 combined were lower than the Int. M. 2 and App. M. 2 combined for the SM values. In other words,  $(11.00 + 6.25)$  is higher than  $(9.93 + 7.20)$  and similarly  $(13.20 + 4.5)$  is lower than  $(9.09 + 12.48)$ . These results agree with what Jane said, "I found [the comments] quite relevant and I felt happy." That feedback could reflect affective empathy because it respected Jane's feelings. For an example of interpersonal meanings, Jane's professor called her many times by her name and as a second person (see Appendix O for Interpersonal Meanings for Each Text). Examples of Appraisal meanings 1 are "Good job, Jane", "Jane, this shows you did a lot of readings", or "I like this example, Jane". These examples reflected the good relationship between Jane and her professor (see Appendix P for Appraisal Meanings for Each Text).

Lastly, Table 29 shows that Jane’s AM for Text. M. 1 was slightly lower than Text. M. 1 for the sample and similarly the AM for Text M. 2 was slightly lower than Text M. 2. This shows that Jane’s AM values for Text. M. 1 and 2 were almost similar to the SM values for Text. M. 1 and 2., which were relatively high. These results show that Jane’s feedback had enough details to satisfy her (see Appendix Q for Textual Meanings for Each Text and Appendix R for Clauses for Each Text). Moreover, Table 29 shows that the Comp. Emp. Mean for Jane’s assignment is higher than the Comp. Emp. for the sample. These results positively meet with what Jane reported in her interview, “I think this professor gave me the best feedback”. Jane’s feedback that had detailed long sentences, full of explanations and many examples for improvement enriched her proposal and positively motivated her to learn. That feedback reflected compassionate empathy (see Appendix S for Empathy for Each Text).

***Mark***

Table 30 above shows that Mark’s AM values for Id. M. 1 and 2 were extremely higher than the SM values for Id. M. 1 and 2. These results positively correlate with what Mark said, “My professor understands my weaknesses. For example, if I was talking about one theory, she would tell me that this theory is obsolete”. This example shows cognitive empathy because the professor understands the student needs and the feedback showed Mark what to be changed and why. One example of ideational meanings 1 employed in Mark’s feedback was the use of adverbs of time, place, manner, and cause, which can describe when, where, how, why, and what is the issue in hand (see Appendix N for Ideational Meanings for Each Text).

Additionally, Table 30 shows that Mark’s AM values for Int. M. 1 and 2 were drastically higher than the SM values for Int. M. 1 and 2. Similarly, Mark’s AM values for App. M. 1 and 2

were significantly higher than the SM values for App. M. 1 and 2. These results positively meet with what Mark reported,

Some expressions affected my learning positively when they encourage me. For example, ‘you have done a lot’, ‘that's a great achievement’, ‘you have made a huge progress since our last draft’. And, these positive encouragements really pushed me to do more.

That feedback could reflect affective empathy because it respected Mark’s feelings. Besides, Mark’s professor called him by his name as a second person five times. For instance, “This is such strong logic here, Mark, Excellent.” Moreover, the professor used the language of suggestion like “let’s”. For example, “Mark, this question is just not clear for me. Let’s discuss.” This is more likely to reflect the good relationship between Mark and his professor (see Appendix O for Interpersonal Meanings for Each Text).

Likewise, the following example shows affective empathy, in which the supervisor respected Mark’s feelings and used positive words to encourage him move forward in learning (see Appendix P for Appraisal Meanings for Each Text). Mark said, “My professor sympathises with me. She does that so many times. She says like, I know, it's hard...I know, it takes too much time. I know it's burdensome, but you have to do this”. These positive words encouraged Mark to proceed in learning.

In the same vein, Table 30 presents that Mark’s AM values for Text. M. 1 and 2 that were extremely higher than the SM values for Text. M. 1 and 2. One example of employing textual meanings 1 in Mark’s feedback is the use of the connectives like (for, and, nor, but, or, yet, so) (see Appendix Q for Textual Meanings for Each Text and Appendix R for Clauses for Each Text).

Similarly, Table 30 shows that Mark's AM for Comp. Emp. was widely higher than the SM for Comp. Emp. These results agree with Mark's results from interviews. For example, Mark reported how the professor used practical solutions to teach him how to do things correctly,

I was having a problem writing one section of my discussion, and it was killing me, like, honestly, I wrote that chapter three times, and it could not get there. I could not get to what they wanted. Okay. Yes. And it was really, really, really frustrating. What she did for me, was writing the first line of that chapter. She wrote that first line, and I completed that chapter

This example could reflect compassionate empathy where the professor used practical solutions to encourage Mark to proceed in learning (see Appendix S for Empathy for Each Text).

Mark's quantitative results show that although Mark's AM values of (Id. M. 2, Int. M. 2, Text. M. 2, App. 2, and O.L.E.) were higher than the SM values for these meaning, Mark perceived the written feedback as reflecting empathy. A good reason for explaining these results could be because Mark's AM values of (Id. M. 1, Int. M. 1, Text. M. 1, App. 1, and Comp. Emp.) were higher than the SM values for these meaning. Therefore, similar to Jane, the feedback that Mark received was convincing to him and helped him move forward in learning. Another reason may be what Mark stated about the good relationship and trust he had with his professor.

*Emily*

Table 31 above shows that Emily's AM for Id. M. 1 was higher than the SM for the same meaning. This shows that part of the language employed in providing part of that feedback used verb processes, Passivization, nominalization, participants, and circumstances properly. For example, out of the six verb processes, Emily's feedback was full of behavioural and relational

processes, which belong to the least dynamic processes as previously discussed. For another example, in nominalization, the feedback was full of nouns of abstraction which is the least dynamic category of nouns as previously shown. Moreover, in terms of content, that feedback was not targeting Emily's needs. Moreover, Table 31 shows that Emily's AM for Id. M. 2 was higher than the SM for the same meaning. This shows that Id. M. 1 and Id. M. 2 are working against each other. These results meet what Emily reported in her interview. She said, "I think he was kind of going beyond what I really needed". She also added, "His feedback was beneficial in some ways. But I think there are also some drawbacks". This shows that the feedback Emily received did not answer what was the issue to be fixed nor why was it to be fixed. Emily's feedback lacks cognitive empathy (see Appendix N for Ideational Meanings for Each Text).

Table 31 presents that Emily's Int. M. 1 was higher than the SM for that same meaning. However, Int. M. 2 was also higher than the SM for Int. M. 2. Similar to the ideational meanings mentioned above, Int. M. 1 and Int. M. 2 were also working against each other. This shows that declarative sentences, modals and personal references were not used properly. For example, the feedback used Emily's name many times but as a third person not as a second person. This shows the feedback was addressed "about her" and not "to her" (see Appendix O for Interpersonal Meanings for Each Text).

In the same vein, Emily's AM for App. M. 1 was lower than the SM for that meaning. This shows that the feedback lacks the use of positive focus, positive force, positive attitude and positive engagement. Similarly, Emily's AM for App. M. 2 was relatively high, which reflects the excessive use of negative force, negative focus, negative attitude, and negative engagement (see Appendix P for Appraisal Meanings for Each Text). These results positively correlate with the qualitative results. Emily reported, "Because it's out of the scope of the thesis, I felt as though

I shouldn't probably put that much weight on those comments". Thus, Emily's professor overloaded her with that feedback. She said, "He was also a barrier". These results are more likely to show the lack of affective empathy.

Additionally, Table 31 shows that Emily's AM values for Text, M. 1 and 2 were higher than the SM for those same meanings. This shows that those meanings work against each other. This may show the lack of proper use of textual adjuncts, textual themes, cohesion, and emphasis (see Appendix Q for Textual Meanings for Each Text and Appendix R for Clauses for Each Text).

Similarly, Emily's AM for Comp. Emp. was lower than the SM for Comp. Emp. These results show the lack of suggested actions for improvement. By default, if a problem is missing, actions for improvement will also be missing. These results could reflect no compassionate empathy (see Appendix S for Empathy for Each Text).

Emily reported that she perceived her feedback as reflecting no empathy. One explanation for this result is more likely to be the relatively high AM values of (Id. M. 2, Int. M. 2, App. M. 2, and O.L.E). Moreover, Emily's relatively low AM value of compassionate empathy positively correlates with what Emily reported that the suggestions for improvement she received in her feedback were irrelevant and beyond the limit of her study. Lastly, Emily reported that she was unfamiliar with her feedback provider, which is reflected in the relatively high values of Emily's AM values of (Int. M. 2 and App. M. 2) and the relatively low value of (App. M. 1).

### ***Laura***

Table 32 shows that Laura's AM values for Id. M. 1 and 2 were lower than the SM values for the same meanings. This shows the lack of use of ideational meanings. These results

positively correlate with Laura's interview results. Laura provided examples of the feedback points she got on her assignment. She said that her professor used expressions like "For example, awkward phrasing, define, elaborate, [and/or] a question mark. So what do you mean? It could be many things." Laura did not know what her professor meant by "awkward phrasing," for example. Likewise, Laura reported, "There is nothing for me in the feedback that shows that my professor understands my needs or weaknesses. There [is] nothing there." This example is more likely to reflect no cognitive empathy because it does not meet the student needs (see Appendix N for Ideational Meanings for Each Text).

Moreover, Table 32 shows that Laura's AM values for Int. M. 1 and App. M. 1 were lower than the SM values for those same meanings. These results show a low level of positive language on the feedback provided to Laura by her professor, which could reflect a low level of relationship between them (see Appendix O for Interpersonal Meanings for Each Text). Additionally, Table 32 presents that Laura's AM for Int. M. 2 was relatively high. More importantly, Laura's AM for App. M. 2 was drastically higher than the SM of that same meaning. These results show the high level of negative language applied on that feedback. These results are more likely to reflect the low level of relationship between Laura and her professor (see Appendix P for Appraisal Meanings for Each Text). These results meet the qualitative results obtained from Laura's interview. She explained, "There is empathy. Feel and understand that I'm a second language learner."

Lastly, Table 32 shows that Laura's AM for Text. M. 1 was extremely lower than the SM of that same meaning. Similarly, Laura's AM for Text. M. 2 was lower than the SM for Text. M. 2. These results show the lack of detailed long feedback that provides examples and/or explanations for improvement (see Appendix Q for Textual Meanings for Each Text and

Appendix R for Clauses for Each Text). These results meet with what Laura believed. She said, “A statement like ‘This is [a] strong section’ does not help me. I need to know why.” Likewise, Table 32 shows that Laura’s AM for Comp. Emp. was “zero” which means that Laura’s feedback did not have a single example of compassionate empathy. Laura said, “I haven’t heard any comments on how I cannot synthesize.” Laura did not know that she had that problem. Then, she added, “And as he didn’t mention the problem. He didn’t suggest any solutions. And then the problem went on and on. He didn’t help me fix it.” Then, she added, “I don’t think the professor empathized with me when he provided this feedback.” Identifying Laura’s problems and providing her with practical solutions could enable Laura to proceed faster to her goal of completing her dissertation. These examples could reflect the lack of both cognitive and compassionate empathy (see Appendix S for Empathy for Each Text).

Laura’s AM values for (Id. M. 1, Int. M. 1, Text. M. 1, App. M. 1, and Comp. Emp.) were drastically lower than the SM values for these linguistic features. Likewise, Laura’s AM values for (Id. M. 2, Int. M. 2, Text. M. 2) were lower than the SM values for these same meanings. Additionally, Laura’s AM values for (App. M. 2, and O.L.E.) were higher than the sample values for these features. These results are more likely to explain why Laura perceived the feedback on her assignment as reflecting no empathy. Although Laura reported that her relationship with her professor was great and that Laura and her professor sat together and talked about many different topics, that relationship could not positively affect the provided feedback to be perceived as reflecting empathy.

### ***Maria***

Table 33 shows that Maria’s AM values for Id. M. 1 and 2 were both lower than the SM values for Id. M. 1. And 2. These results show that Id. M. 1 and 2 work against each other, which

will result of a low level of ideational meanings, which may reflect a low level of cognitive empathy. These results positively correlate with Maria's interview results. She said, "It took me much more time to know exactly what he is looking for." This shows the lack of identifying the problem in hand, which may reflect the lack of cognitive empathy (see Appendix N for Ideational Meanings for Each Text).

Additionally, Table 33 presents that Maria's AM values for Int. M. 1 and 2 were both lower than the SM values for Int. M. 1. And 2. These results show that Int. M. 1 and 2 work against each other, which will result of a low level of interpersonal meanings. These results may reflect a low level of affective empathy, which could reflect a low level of relationship between Maria and her professor (see Appendix O for Interpersonal Meanings for Each Text). More importantly, Maria's AM for App. M. 1 was drastically lower than the SM for App. M. 1. This result shows the low level of positive language employed in the received feedback (see Appendix P for Appraisal Meanings for Each Text). Besides, Maria's AM for App. M. 2 was extremely higher than the SM for App. M. 2. This result shows the high level of negative language employed in the provided feedback. For example, negative force, negative focus, negative appreciation, and negative judgment. These results meet Maria's interview results. She explained, "It definitely took more time. Yes, because I was overwhelmed." She added, "It was also hard for me to understand what was going on, it was very confusing." These examples could reflect the lack of affective empathy.

Lastly, Table 33 shows that Maria's AM for Text. M. 1 was higher than the SM for Text. M. 1. Similarly, the AM for Text. M. 2 was lower than the SM for Text. M. 2. These results were due to the high use of topical and interpersonal themes, the use of conjunctions, Markedness and relevant repetition (see Appendix Q for Textual Meanings for Each Text). However, Maria's

feedback had a high level of ranking clauses (see Appendix R for Clauses for Each Text) These results positively correlate with Maria's interview results. She reported, "This feedback made clear for me what my problem was, but what it didn't have was clear solutions about how to solve it." Thus, Maria's feedback had a single example of compassionate empathy (see Appendix S for Empathy for Each Text).

Maria's results are greatly similar to Laura's results. Maria's AM values for (Id. M. 1, Int. M. 1, App. M. 1, and Comp. Emp.) were drastically lower than the SM values for these linguistic features. Likewise, Maria's AM value for (O.L.E.) was higher than the SM value for that same feature. These results are more likely to explain why Maria reported that the feedback she received reflected no empathy. Moreover, Maria reported that she did not have any relationship with her professor and it took her some time to understand the provided feedback because she tried hard to figure out the background on which he was based when providing his feedback. This result could be reflected in Maria's assignment relatively high Mean value of (App. M. 2) and relatively low values of (Id. M. 1 and Int. M. 1).

### *Cathy*

Table 34 shows that Cathy's AM values for Id. M. 1 and 2 were lower than the SM values for Id. M. 1 and 2. These results show that these meanings work against each other, which is more likely to result in a low level of ideational meanings that could reflect cognitive empathy. Cathy's ideational meanings show the high use of behavioural and relational processes with the focus on attributive processes. Besides, there is extremely high use of active voice and 72.2% of the nouns employed in the feedback were either underived verbal nouns or abstraction nouns (see Appendix N for Ideational Meanings for Each Text). These results positively correlate with Cathy's interview results. Cathy reported, "I don't have any examples that show empathy, but I'd

say it's still the [lowest] level of empathy.” Cathy’s ideational results could reflect a low level of cognitive empathy.

Similarly, Table 34 presents Cathy’s AM values for Int. M. 1 and 2 were lower than the SM values for Int. M. 1 and 2. These results again show that these meanings work against each other, which is more likely to result in a low level of interpersonal meanings, which could reflect affective empathy. Cathy’s interpersonal meanings show that the imperative was used for 8.2%, not full questions were used 57.1%, Vocatives were not employed, and modals of obligations were used 66.7% (see Appendix O for Interpersonal Meanings for Each Text). Likewise, Table 34 shows that Cathy’s AM for App. M. 1 was a little bit higher than the SM. Similarly, Cathy’s AM for App. M. 2 was lower than the SM. These results could reflect a level of affective empathy. These results positively meet with Cathy’s results from her interview. She said, “And of course, he is being mostly complimentary. So it's easy to feel happy.” Cathy’s appraisal meanings show that positive force is used 57.1%, positive judgment is used 80%, proclamation is used 37.8%, and entertainment is used 32.4%. These results are relatively high and could reflect affective empathy (see Appendix P for Appraisal Meanings for Each Text).

Lastly, Table 34 shows that Cathy’s AM values for Text. M. 1 and 2 were both lower than the SM values for the same meanings. These results show that these meanings are working against each other. These results show a low level of textual meanings that could reflect empathy. These results also show that Cathy’s feedback was undetailed. Cathy’s textual meanings show the high use of structural conjunctions 66.1%, lack of cohesion 44.1%, and ranking clauses 56.9%. These results are relatively high and could reflect short undetailed feedback that could reflect no compassionate empathy (see Appendix Q for Textual Meanings for Each Text and Appendix R for Clauses for Each Text). These results meet with Cathy’s

interview results. She said, “Well, there could have been even more. It's a pretty long document. So there are places where you know, had he commented more, I might have changed the document more deeply.” This shows the lack of long detailed relevant feedback points that could provide examples, explanations, and/or actions for improvement. She added, “It could have been more detailed.” Cathy’s words could explain the relatively low value of 7.3% of compassionate empathy in her feedback (see Appendix S for Empathy for Each Text).

Cathy’s AM values for (Id. M. 2, Int. M. 2, Text. M. 2, App. M. 2, and O.L.E.) were lower than the SM values for these same meanings. But Cathy’s AM values for (Id. M. 1, Int. M. 1, Text. M. 1, and Comp. Emp.) were also lower than the SM values for these features. This could explain why she perceived the feedback on her assignment as reflecting “the lowest level of empathy”. Additionally, Cathy reported that her relationship with her professor was great and they published work together. This relationship could be reflected in her relatively low AM values of (Int. M. 2 and App. M. 2).

### **Summary**

In this study, results integration indicated that students may perceive the written provided feedback as reflecting empathy in at least three scenarios: 1) The feedback should understand student needs, for example, Id. M. 1 for the AM values for Mary, Laura, Maria, and Cathy were lower than the SM values. Therefore, all the feedback on those assignments was perceived as reflecting no cognitive empathy or no empathy. The reason for that lack of cognitive empathy could be that the provided feedback simply failed to answer student needs and it failed to communicate to students why some issues are to be fixed and/or why some other issues are accepted and meet the standards of a learning episode. Similarly, Id. M. 1 for the AM for Mark was higher than the SM. Therefore; Mark was more likely to perceive his feedback as reflecting

cognitive empathy because that feedback explained what is accepted, what is to be improved, and why.

2) It should respect student feelings, for example, Int. M. 1. for the AM values for Mary, Laura, Maria and Cathy were lower than the SM. Therefore; the feedback on their assignments was perceived as reflecting lack of affective empathy. The reason for this lack of empathy is more likely to be because that feedback did not respect student feelings, which may demotivate students to move forward in a learning episode. Similarly, Int. M. 1. for the AM values for Jane and Mark were higher than the SM values. That feedback is more likely to be perceived as reflecting affective empathy because it takes good care of student feelings.

3) It should provide actions for improvement. For instance, Text. M. 1 for the AM values for Mary, Laura and Cathy were lower than the SM values. That feedback could reflect lack of compassionate empathy. All those participants sought details for improvement in that feedback, but they could not find it. Moreover, Text. M. 1. for AM for Mark was higher than SM. Therefore the feedback is more likely to be perceived as reflecting compassionate empathy because it provided the student with suggestions for improvement. Furthermore, Id. M. 1, Int. M. 1, and Text. M. 1 for AM values for Emily were higher than the SM values. But the feedback could reflect no cognitive empathy because it did not meet Emily's needs in the first place.

In this study, results show that in two cases professor-student relationship seems to have little or no effect on student perception of empathy in the feedback for learning provided to enrich student learning. For example, Laura's quantitative data show that the feedback on her assignment was more likely to reflect no empathy. More importantly, although Laura stated that she had a good relationship with her professor, she said that she perceived the feedback on her assignment as reflecting no empathy. Likewise, Cathy's quantitative results show that the

feedback on her assignment could reflect no empathy. Despite the fact that Cathy and her professor had a good relationship and they published work together, Cathy reported that she perceived the feedback on her assignment as reflecting the “lowest level of empathy”.

In two other cases, results show that professor-student relationship seems to positively affect student perception of empathy in the feedback for learning provided on their assignment. For example, Jane’s quantitative results show that the feedback on her assignment was more likely to negatively affect her perception of empathy because Jane’s AM values of (Id. M. 1, Text. M. 1, and App. M. 1) were lower than the SM values for these meanings. Moreover, Jane’s AM value of (Int. M. 2) was higher than the SM value for that feature. But Jane reported that she perceived the feedback on her assignment as reflecting empathy because of her good relationship with her professor.

Additionally, Mark’s quantitative results show that the feedback on his assignment was more likely to negatively affect his perception of empathy because Mark’s AM values of (Id. M. 1, Int. M. 1, Text. M. 1, and App. M. 1) were much higher than the SM values for these meanings. Moreover, Mark’s AM values of (Id. M. 2, Int. M. 2, Text. M. 2, and App. M. 2) were also higher than the SM values for these same meanings. However, Mark stated that he perceived the feedback on his assignment as reflecting empathy because of his good relationship with his professor.

Emily said the feedback she received did not reflect empathy. One reason for this result could be that Emily’s AM values of (Id. M. 2, Int. M. 2, and Text. M. 2) were higher than the SM values for these meanings. More importantly, Emily’s AM values for (App. M. 1 and Comp. Emp.) were lower than the SM values for these features. Another reason could be that Emily,

unlike Jane and Mark, was not familiar with her professor. Similar to Emily, Mary and Maria were not familiar with their professors.

## Chapter Six: Discussion and Conclusions

In the current study, my research questions are addressed both by the quantitative results obtained from analyzing written feedback by the Systemic Coder (O'Donnell, 2023), and by the qualitative results obtained from analyzing interviews. These two sets of data explain how “empathy” was reflected in written feedback provided on graduate students’ assignments, and how that feedback was perceived by the student participants. Results from quantitative data showed how the empathy reflected is positively associated with the language aspects of field, tenor, and mode through their ideational, interpersonal, and textual meanings respectively. Moreover, reflected empathy is associated positively with appraisal meanings and empathy levels. Quantitative and qualitative results also demonstrated how the perceived feedback is positively associated with ideational, interpersonal, textual, and appraisal meanings. The following section will show and discuss the two research questions in this study: 1. How is empathy reflected in written feedback provided to graduate students? And 2. How is the written feedback perceived by graduate students?

### **How is Empathy Reflected in Written Feedback Provided to Graduate Students?**

#### ***Ideational Meanings***

In this study, ideational meanings refer to processes, nominalization, participants, active and passive statements, and circumstances. Processes are divided into six groups: material, verbal, behavioural, mental, existential and relational processes (e.g., Eggins, 2004). For instance, Halliday (2008) suggested certain verbs that could help us realize the material process such as the following: *break, do, catch, combine, dissolve, fall, fetch, go, mend, play, resign, spring, etc.* An example of feedback points that employ material process would be “Combine these two short paragraphs into one” or “Do this same process with all other examples”. Halliday

argues that material process examples provide the listener, students in this case, with clearer direction as they focus on the process of doing. Moreover, these examples help students to better understand the message because they answer the question of “what to do?” (e.g., Carless & Winstone, 2020; Hattie & Timperley, 2007; Hyland, 2003; Rakoczy et al., 2019).

Similarly, Halliday (2008) suggested certain verbs that can help us realize the behavioural process, such as: *breathe, cough, cry, dance, dream, faint, frown, lie, listen, look, watch, stare, think, grumble, talk, laugh, sigh, sing, sit, sleep, smile, worry, yawn, etc.* Examples of feedback points that apply behavioural process are “Look at the first sentence in this paragraph”, or “Watch the following short movie”. These feedback points focus on behaving via the use of “look and watch” respectively, so they might be less active and not helpful to students because these feedback points do not tell them what to do. According to Hasan (1985), material processes are the most dynamic process, whereas a relational process is the most passive one (see Appendix T for Hasan’s Cline of Dynamism).

In ideational terms, the more we use material processes, mental processes, verbal processes, nominalised imperfective clauses, verbal classifiers, derived verbal nouns, non-human participants, passive voice, and circumstances, the more positive the effect we add to our messages because our messages will be less directive, less judgmental, more active and more formal depending on the context in hand (Eggins, 2004; Halliday, 2008; Thompson, 2004). For example, according to Martin’s Cline of Nominalization (1986, p. 242), the most active nominalisation of all is the nominalized imperfective because it retains “a sense of something going on”. This is critical to the degree of abstraction in a text. Based on Martin’s cline of nominalization, one could decide how active or passive the meaning reflected by the use of

language in the provided feedback. Therefore, one could on this basis decide whether or not empathy is reflected (Martin's Cline of Nominalization).

A text, written feedback in this case, that applies the above language aspects respects readers, students in this case, and provides them with answers on "What to do", which could reflect empathy (e.g., Englander, 2009; Goleman, 2007; Halliday, 2008; Hyland, 2003). In this study, assignments Means AM for Mary, Laura, Maria and Cathy for the above ideational meanings were 0.78, 6.33, 6.33, and 5.33 respectively. But the SM was 8.98, which was higher than AM for these participants. This could be a good reason why these participants perceived no empathy in the received feedback because that feedback did not tell them what to do. Meeting student needs reflects cognitive empathy (e.g., Ekman, 2003; Darder, 2015) Therefore, professors are advised to increase applying these meanings when they provide feedback for learning.

Similarly, the more we use the ideational meanings of behavioural processes, existential processes, relational processes, underived verbal nouns, nominalised adjectives, abstractions, human participants, missing participants and active voice, the more negative the effects we add to our messages would be, because our messages will be more directive, more judgmental, more passive and less formal depending on the context in hand (e.g., Eggins, 2004; Halliday, 1986; Hasan, 1985). A text that applies these ideational meanings loads students with heavy burdens because it fails to provide them with answers on "What to do", which is more likely to reflect no empathy (e.g., Goleman, 2007; Hattie & Timperley, 2007; Hyland, 2003). A good example, here is what happened to Jane and Emily, whose assignments Means for the above ideational meanings were 14.80 and 25.10 respectively. The SM was 16.63. Jane's AM was lower than SM. This could be one reason why she perceived empathy in the feedback for learning she received.

Similarly, Emily's AM was higher than SM, and this may be a good reason why she perceived no empathy in the feedback on her assignment. Thus, it is recommended that the above kinds of meanings are reduced when providing empathic feedback .

### ***Interpersonal Meanings***

The more we apply interpersonal aspects of declarative statements, yes/no questions, wh-questions, modalization (usuality), modulation (inclination) and vocatives (second person) in our messages, the more positive the effects would be for the messages in hand. This is simply because our messages will become less judgmental, less passive, more friendly, and more informal, depending on the context in hand (e.g., Englander, 2009; Halliday, 1986; Hasan, 1985, Thompson, 2014). A text that employs these interpersonal meanings reduces the gap, if any, among participants, the professor and the student in this case, and improves relationships among them (Halliday, 2008; Thompson, 2014). More importantly, this kind of feedback respects students and motivates them to move forward in learning, which is more likely to reflect affective empathy because that feedback takes good care of student feelings (e.g., Brookhart, 2008, 2017; Ekman, 2003; Goleman, 1998, 2007; Hyland, 2003). Students positive emotions can positively affect their learning (Pekrun, Goetz, Frenzel & Perry, 2011), and students negative emotions can affect their learning negatively (Lewis et al., 2011). In this study, Mary, Laura, Maria and Cathy had the following AM values respectively 0.17, 5.50, 5.83 and 6.00. The SM was 9.93. All AM values for these participants were lower than the SM values for the same meanings. This may be another reason why these participants perceived no affective empathy in the feedback on their assignments. Similarly, Jane's and Mark's AM for the above interpersonal aspects were 11.00 and 27.00 respectively. These values were higher than the SM, which was 9.93. This could be why Jane and Mark reported that they perceived affective empathy in the

feedback they received. These results go hand in hand with research on feedback. For instance, Hyland (2003) argues that feedback providers should remember that a human being, who deserves to be respected, is on the other side to read their provided feedback. Hence, use of the above meanings is recommended for professors when providing feedback.

Likewise, the more we employ the interpersonal meanings of imperative statements, not-full questions, modalization (probability), modulation (obligation), personal pronouns and vocatives (third person), the more negative the effects we add to the messages in hand. As in the ideational counterpart, this is because our messages will become more judgmental, more passive, more unfriendly, and more formal, depending on the context in hand (Halliday, 2008; Hasan, 1985, Martin, 1986; Thompson, 2004, 2014). A text that uses the above interpersonal meanings increases the gap among participants and prevents healthy relationships (Halliday, 2008; Martin, 1986; Thompson, 2014). Moreover, this feedback disrespects students and demotivates them to move forward in learning. This is more likely to reflect no affective empathy because the feedback neglects student feelings (e.g., Brookhart, 2008; Darder, 2015; Ekman, 2003; Hyland, 2003). In this study, the AM for Emily for the above interpersonal meanings was 11.00, and the SM was 9.09. This shows that Emily's AM was higher than SM, which could reflect no affective empathy. This may explain why Emily said her feedback reflected no empathy.

These results support research on the perceived usefulness of feedback for learning in higher education. Hyland (2003) for example, focused on the role of respectful relationship among participants in motivating students to enhance their learning. Feedback should be motivating to move students forward in learning (Black & Wiliam, 2009; Carless & Boud, 2018; Carless & Winstone, 2020; Holmes, 2023). Likewise, Price, Handley, and Millar (2011) stated that teachers' exhibited commitment in offering students with feedback for learning encourages

students to proceed in discussion or ask for clarification. Lastly, According to Alamis (2010), feedback providers can send negative effects to students if their feedback employs imperative language as well as “should and must” rather than declarative or interrogative language. These actions, although might not be intended, can be understood as “use of power” from the side of the professor. Therefore, students become reluctant to work on the provided feedback (Alamis, 2010). This feedback could reflect no affective empathy. Thus, professors are suggested to reduce using the above mentioned interpersonal meanings when providing feedback.

### ***Textual Meanings***

The more we apply the textual meanings of lexical density, continuity, conjunction, cohesion, emphasis, interpersonal theme, textual theme, clause complex, expansion (elaborating) and expansion (extending), the more positive the effects that we may add to our messages. To reiterate, this is because our messages would then be less directive, more meaningful, more active and less formal, depending on the context in hand (e.g., Eggins, 2004; Halliday, 2008; Hasan, 1985; Martin, 1986; Thompson, 2004). For example, grammatical intricacy is “The number of clauses in each statement” (Eggins, 2004, p. 97). Low grammatical intricacy is a main feature of written text while high grammatical intricacy is a feature of spoken texts (Castello, 2008). Low grammatical intricacy can help our written messages to be perceived as they are intended without any unwanted added negative effects (Eggins, 2004; Halliday, 2008; Thompson, 2014). In this study, grammatical intricacy was relatively low.

For another example, lexical density refers to the number of active words in a text i.e. nouns, main verbs, adjectives, and adverbs divided by the total number of words in the same text (e.g., Eggins, 2004). According to Castello (2008), lexical density is typically lower than 40% in

spoken texts, but typically higher than 40% in written texts. Eggins (2004) argues that lexical density is a main feature in written texts. In our sample, lexical density was relatively high.

Applying the above textual meanings improves communication among participants (Eggins, 2004; Halliday, 2008). By the same token, applying these meanings in feedback for learning in higher education could improve student perceived usefulness and understanding and provide detailed explanations and/or solutions for the issue(s) in hand, which could help students achieve their academic goals (e.g., Black & Wiliam, 2009; Brookhart, 2022; Carless & Winstone, 2020; Winstone & Boud, 2022). Understanding needs and providing solutions is an example of compassionate empathy (Ekman, 2003; Goleman, 1998, 2007). Thus, professors are recommended to apply the above textual meanings when providing feedback.

In this study, Mary, Laura and Cathy respectively had AM values AM of 2.93, 6.39 and 7.83 for the above textual meanings. The SM value was 14.67. This shows how AM for these participants were lower than SM, which could reflect no compassionate empathy. This may explain why these participants said they perceived no empathy in the provided feedback. Likewise, Mark's AM was 36.72. This shows that Mark's AM was higher than SM, which could explain why he said his feedback reflected empathy. Mark's feedback reflected compassionate empathy because it was detailed and suggested solutions for improvement. These results are compatible with research on functional linguistics. Here is an example of textual meanings analysis. Textual meanings deal with the distance between speaker and addressee, and between speaker and text and what it describes (Martin, 1986). Themes, conjunctions, and references can play their own roles when a message is sent to a reader (Thompson, 2014). A Theme is the "point of departure of the message" (Halliday, 1994, p. 37). This means that Theme is the first element in a clause that takes part in the transitivity relationship. Themes can be unmarked or

marked (Eggins, 2004). For instance, “They got married in 2010”. This is unmarked, informative, neutral clause. The theme in this clause is “They”, and it is the point of departure (e.g., Martin, 1986). However, “In 2010, they got married” is a “marked”; un-neutral clause (e.g., Thompson, 2014). The theme in this clause is “the date”, which makes the clause “marked” and gives it more meaning. Thus, “Markedness” affects the importance of the message to be delivered (Martin, 1986). This may bring the distance closer among writers and readers, professors and students in this case, and may reflect empathy (e.g., Francis & Kramer-Dahl, 2004).

Similarly, conjunctions can be used to determine the distance among writers and readers (Eggins, 2004). According to Martin (1986), higher percentage of the use of internal rhetorical markers like *as a consequence, however, thus, in fact, therefore* make a text appear more “written-like” than a text that uses everyday coordinating conjunctions such as *but, so, and, and yet*. Martin (1986) claims that the first text can reflect more distance among participants. Distance among participants would reflect no empathy (Martin, 1986).

References, can also determine the distance among writers and readers (e.g., Thompson, 2014). For example, the use of “you, he/she, and/or the student” instead of using their own favourite names may increase the distance among professors and students. It may add negative unwanted effects to provided messages, which can reflect no empathy (Francis & Kramer-Dahl, 2004).

On the other hand, the more we employ the textual meanings of topical Theme, structural textual adjuncts, no cohesion, ranking clauses and grammatical intricacy, the more negative effects we would add to our messages because our message will be less communicative, less understandable, ambiguous and confusing (e.g., Halliday, 2008; Martin, 1986; Thompson, 2014).

A text that uses lots of ranking clauses, for example, like half sentences or incomplete ideas will confuse students and will result in no cohesion, which will block understanding and prevent communication among participants (e.g., Rakoczy et al., 2019; Sadler, 2010; Wiliam, 2011).

Likewise, according to Martin (1986), contact, which refers to topic and technicality, can lead to solidarity among participants if it is employed properly. For instance, providing feedback that has many technical words may negatively affect solidarity among participants. Professors are advised to put their assumptions aside and work according to student needs. In the current study, Emily and Jane respectively had AM values of 36.82 and 25.69. The SM was 27.94 for the above textual meanings. This shows that Emily's AM was higher than SM, which may explain why she said the feedback she received reflected no empathy. Besides, Jane's AM was lower than SM, which could explain why she reported that her feedback reflected empathy. Thus, professors are urged to decrease using the above textual meanings when providing feedback.

### ***Appraisal Meanings***

Appraisal meanings refer to the ways which writers employ to approve or disapprove things, ideas, behaviours and/or people (e.g., Martin & White, 2005). The more we apply appraisal meanings of positive force, positive focus, positive judgment, positive appreciation, positive emotion, proclamation, entertainment and attribution, the more positive the effects we add to the messages in hand are. This is because our messages will be less judgmental, less passive, more friendly, and more informal, depending on the context in hand (e.g., Francis & Kramer-Dahl, 2004; Martin, 1986; Thompson, 2014; Voloshinov, 1995). A written text that applies these appraisal meanings reduces gaps among participants and improves relationships among them (Martin, 1986, Voloshino, 1995). Furthermore, it respects readers, students in this case, and encourages them to proceed in learning, which is more likely to reflect affective

empathy (e.g., Black & Wiliam, 2009; Brookhart, 2008; Darder, 2015; Hyland, 2003; Price et al., 2011). Perkrun et al. (2011) argue that student positive feelings resulted from the perception of useful feedback can affect learning positively. In this study, Mary, Emily, Laura and Maria had AM values AM for the above appraisal meanings of 0.38, 6.25, 4.13 and 4.63 respectively. The SM value was 7.20. This shows that AM for these participants were lower than SM, which may explain why they reported that their feedback reflected no empathy. Besides, Mark's AM for the same meanings was 21.38, which was way higher than SM. This could be a good reason why Mark said his feedback reflected empathy. Thus, professors are recommended to increase using the above appraisal meanings when providing feedback.

Moreover, the more we apply appraisal meanings of negative force, negative focus, negative judgment, negative appreciation, negative emotion, and disclaim, the more negative the effects we add to the messages in hand are. Once again, this is because our messages will be more judgmental, more passive, unfriendly, and more formal depending on the context in hand (e.g., Francis & Kramer-Dahl, 2004; Martin, 1986; Thompson, 2014; Voloshinov, 1995). A written text that applies these appraisal meanings increases gaps among participants and leads to unhealthy relationships among them (Francis & Kramer-Dahl, 2004; Martin, 1986, Voloshino, 1995). Furthermore, it disrespects readers, students, and discourages them to enhance their learning, which is more likely to reflect no affective empathy (e.g., Black & Wiliam, 2009; Brookhart, 2008; Darder, 2015; Holmes, 2023; Hyland, 2003). According to Morris et al. (2021), when feedback is provided to help a student to close a gap in their current level of knowledge/understanding/skill, then that feedback should minimise negative emotional reactions, and it should be constrictive so that the student can act on it and improve the work in hand. Likewise, negative emotions resulted from the perception of negative feedback can

negatively affect students' confidence and their self-esteem, which can discourage them to proceed in learning to improve the work in hand (Cramp, 2011; Holmes, 2023; Rand, 2017; Shield, 2015). Therefore; professors are suggested to reduce applying these negatively perceived appraisal meanings in their feedback to students.

In this study, Laura's and Maria's AM values for the above appraisal meanings were 19.17 and 18.50 respectively. The SM value was 12.48. This shows that Laura's and Maria's AM were higher than SM, which may explain why they both said that the feedback on their assignments reflected no empathy. Besides, Cathy's AM was 7.50, which was higher than SM. This could be another reason why Cathy said the feedback on her assignment reflected "A low level of empathy". Lastly, Jane's AM was 4.50, which was lower than SM. This may explain why Jane reported that the feedback on her assignment reflected empathy. These results are compatible with research on functional linguistics, feedback, and empathy. Martin (1986) argues that affect or attitudinal items can bring negative effects on the reader. According to Lipnevich, Berg, and Smith (2016), the teacher's tone in the provided feedback for learning to students in higher education is one of the most critical aspects of how useful students perceive and react to that feedback. Imagine written feedback provided to a student that has words such as: misconception, misleading, poor, inequivalent, false, and so. If these items are found in the feedback provided to students, they can be destructive (e.g., Holmes, 2023; Lipnevich et al., 2016; Morris et al., 2021; Rand, 2017). This feedback may reflect no affective empathy.

### ***Empathy Levels***

The choice of language aspects could positively or negatively affect reflected empathy in our sent messages. Consider the following feedback point, "You may want to take a look at Elizabeth Young Bruehl's *The Biographer's Empathy with her Subject* (1988)." Instead of

starting with “Look at Elizabeth.....”, the professor cancelled the negative force of the imperative “look” by using the negative second personal pronoun “you” followed by a negative focus of the modal “may”, followed by a positive focus of the inclination “want to”. Then, the professor combined the more dynamic material process of “take” to the less dynamic mental process of “look”. Thus, by using all these combinations of positive and negative language aspects, the negative imperative statement of “Look at Elizabeth ....” was changed into a positive declarative statement “You may want to take a look at ...” The final end was a positive feedback point that respects student feelings and is more likely to reflect affective empathy. These results support research on functional linguistics, which states that ideational, interpersonal, textual, and appraisal meanings work with each other in concert (e.g., Francis & Kramer-Dahl, 2004; Halliday, 2008; Martin, 1986; Thompson, 2014; Voloshinov, 1995). Hence, professors are urged to carefully choose their words so that their feedback could be perceived as reflecting empathy.

In this study, Laura and Maria did not have similar experiences to the above example. Their AM values for other levels of empathy were 11.25 and 15.25 respectively. The SM value was 9.86. Laura’s and Maria’s AM were higher than SM, which may explain why they said their feedback reflected no empathy. Similar to Laura and Maria, Cathy’s AM was 9.50, which was little lower than SM. This could be why Cathy said her feedback reflected “a low level of empathy”.

Additionally, Mary, Emily, Laura, Maria and Cathy had respectively the following compassionate Means for their assignments 0.00, 2.00, 0.00, 1.00 and 3.00. The SM was 5.86. This shows that the Means for these assignments were lower than the SM, which could explain why these participants said the feedback they received did not reflect empathy. Moreover, Jane’s

and Mark's AM were 6.00 and 29.00 respectively, which was higher than the SM. This could be a good reason that explains why Jane and Mark reported that their feedback reflected empathy.

In summary, results from the coder indicate that many professors employ the ideational, interpersonal, textual, and appraisal meanings inadequately when providing graduate students with written feedback. This fluctuating employment of these meanings shows that many professors might use them without previous knowledge. For example, Mark's AM values for ideational meanings 1, interpersonal meanings 1, textual meanings 1, and appraisal meanings 1 were higher than the SM values for all the mentioned meanings. This explains why Mark perceived empathy in the feedback he received. However, Mark's AM values for ideational meanings 2, interpersonal meanings 2, textual meanings 2, and appraisal meanings 2 were also higher than the SM values for all the mentioned meanings. Similar to Mark, Jane's AM values for ideational 2, textual 2, and appraisal 2 were lower than the SM values for all the mentioned meanings. This is a good reason why Jane said she perceived empathy in the feedback provided to her. But, Jane's AM values for ideational 1, textual 1, and appraisal 1 were also lower than the SM values for all the mentioned meanings. These findings give importance for the coming section of interviewing participants because they are the ones who can decide whether or not they perceived empathy in the feedback they received on their assignments and why.

### **How is the Written Feedback Perceived by Graduate Students?**

Having analysed interviews in this study, the researcher has identified the following four themes: Feedback form and content, solidarity, empathy, and prospective barriers. These themes, together with the results obtained from the coder, should help answering the second research question.

*Feedback Form and Content*

The linguistic style of writers, professors in this case, is an integral part of the message in hand (Eggins, 2004; Thompson, 2014). Most participants agreed that linguistic style can affect the delivered message positively or negatively. Mary liked her professor's way of using interrogative statements in his provided feedback, but she did not like "half sentences" and "not full questions". Likewise, Cathy praised her professor's way of using "short positive declarative statements". Moreover, Mark celebrated his professor's way of using "dialogue and suggestions" when providing him with written feedback. However, Laura did not appreciate her professor's way of employing "the imperative and the use of attitudinal words". Many students prefer one style in providing feedback over another because they find that particular style less judgmental, less passive, more positive, more respectful and motivational, which is more likely to improve their learning. Using motivational language encourage students to move forward in a learning episode while using commands and imperative language can drive students to stop learning or leave a learning episode or even a whole program (Alamis, 2010; Bailey & Garner, 2010; Black & Wiliam, 2006; Brookhart, 2008; Brooks et al., 2019; Carless & Boud, 2018; Gálvez-López, 2023; Holmes, 2023; Shute, 2008; Wiliam, 2017; Winstone & Boud, 2019). Therefore, professors' careful choices of their vocabulary and structure could positively affect the provided feedback, if it is intended to be perceived as reflecting empathy.

Some other students may focus on the message in terms of content, not form. For example, Emily said that she did not care how her professor addressed her. She cared more to how relevant his feedback was to her thesis. She was looking for the missing compassionate empathy. One explanation which Emily offered was that the feedback she received was beyond the scope of her research, which stressed her. Another explanation was that she received her

feedback just few days before her defense, which overwhelmed her. Emily was running out of time and she could not afford to care for her professor's linguistic style. Similarly, Jane reported that she cared more for how the feedback she received could improve her research. One explanation for Jane offered was that she had a good healthy relationship with her professor and they knew each other for seven years. Thus, Jane accepted whatever style her professor used in providing feedback because Jane trusted her professor. Healthy relationship can improve communication and understanding among participants (Brookhart, 2008; Carless & Winstone, 2020; Gálvez-López, 2023; Hyland, 2003; Price et al., 2011). Thus, professors are urged to build healthy relationships with their students.

In the same vein, most students prefer to have positive feedback. For instance, Jane perceived the feedback on her assignment as positive. She said that the positive feedback encouraged her to work harder and find out how that feedback was connected to her research. Similarly, Mark reported that he perceived his professor's feedback as positive feedback. He said his professor had provided that feedback because Mark must have needed it. Cathy, as well, liked the positive feedback she received on her assignment. This feedback gave her more confidence that she was on the right track. Understanding and respecting the person's feelings reflects affective empathy (Ekman, 2003). These results are compatible with research on formative assessment for learning for students in higher education. Weaver (2006) surveyed 34 students and all those participants reported that they preferred positive feedback on their work. Positive feedback can motivate students to move forward in learning (Agius & Wilkinson, 2014; Haughney, Wakeman & Hart, 2020; Morris et al., 2012; Perkrun et al., 2011; Shute, 2008). Thus, professors are called upon to provide positive feedback, which is more likely to reflect affective empathy and thereby improve student learning.

Likewise, most students do not prefer negative feedback (Weaver, 2006). In our study, Mary complained about domineering negative feedback she received on her assignment, which made her sad and hindered her learning for a while. She reported that she did not mind to have a balanced feedback of positive and negative points. Focusing only on her weaknesses drove her to make a decision never to have a course with that professor in the future. For another example, Laura had negative feedback on her assignment, which was confusing to her. Hence, she decided to work alone because she did not have her professor's support. These results positively correlate with research on formative assessment. For instance, Alamis (2010) reported that she had 121 participants in her study, and 92 of those participants expected to have positive and critical feedback on their assignments. Moreover, the dominance of negative feedback had demoralizing effects, which hinders student learning (Black & Wiliam, 2009; Gálvez-López, 2023; Holmes, 2023; Morris et al., 2012; Poulos & Mahony, 2008; Wiliam, 2017). Thus, professors are encouraged to avoid providing feedback that is only negative.

Most students seek to have relevant detailed feedback that can help them proceed in learning. Duers and Brown (2009, p. 657) found that students perceived feedback like "Work on this" or "Weak section" as general and useless feedback. These phrases do not identify an issue to be improved and do not suggest any solutions. For example, Laura perceived the feedback on her assignment as general and useless. She stated that she did not care for feedback quantity; instead she cared for how deep that feedback was. For another example, Emily perceived her feedback as filled with too much with unnecessary details, which "according to Emily" were irrelevant to her work. Lastly, Cathy looked for more detailed feedback, which could improve her research. Students complain about the undetailed feedback on their work (Carless, 2006; Holmes, 2023; Winstone & Boud, 2019; Winstone, Nash, Rowntree & Parker, 2017). Likewise,

Lizzio and Wilson (2008) argue that students seek detailed feedback, which has explanations and examples that can improve their work. Providing actions for improvement reflects compassionate empathy (Ekman, 2003). Hence, professors are recommended to provide relevant detailed feedback that can help students proceed in their learning.

In summary, many students believe that professors' feedback should focus on both form and content to more likely be perceived as reflecting empathy. Professors' choices of vocabulary and structure can positively or negatively affect the perception of the provided feedback. Additionally, positive feedback can encourage students to move forward in learning. This feedback could reflect affective empathy. But negative feedback can demoralize students and hinder their learning. This feedback is more likely to reflect no affective empathy. Lastly, most students prefer detailed feedback because it provides them with explanations, examples, and/or solutions on how to improve their work and proceed in learning. This feedback could reflect compassionate empathy.

### ***Solidarity***

It is well-established that improving student learning in higher education is a shared goal among professors and students (e.g., Balloo et al. 2018; Carless & Boud, 2018; Nash & Winstone, 2017; Holmes; 2023). Solidarity may help professors and students achieve this common goal. Firstly, professors and students can work as a team, where they complete each other. In this study, Cathy stated that the feedback she received from her professor was not so useful because he knew that she was going to fill in any gaps. She added that "because of [a] good relationship, he knew I would [overlook] any shortage in [the] feedback". Similarly, Laura reported that she had a good relationship with her professor. She added, "And maybe because of that relationship influence, I was accepting whatever comes from that professor". Similarly, Jane

said that she chose to work with her professor because the professor was nice, helpful and supportive. Mark described his professor as supportive. He said, “She really helps you to push forward without disappointing you”. Healthy relationship among participants can improve the perception of the provided feedback (Black & Wiliam, 2009; Carless, 2006; Carless, 2013; Carless & Boud, 2018; Sutton, 2012; Wiliam, 2011, 2017). Professors are therefore urged to build healthy relationships with their students, which could improve the perception of provided feedback. This could reflect empathy (Elman, 2003).

Secondly, professor-student feedback discussions or “conferences” can improve feedback perception (e.g., Brookhart, 2008; Carless & Winstone, 2020; Hyland, 2003; Nash & Winstone, 2017). Cathy said that she discussed the feedback she received on her assignment with her professor. She added that she noticed how interested her professor was in talking about her research. Cathy reported that she could not feel her professor’s interest when she read the received feedback. That discussion impacted Cathy positively. Similarly, Maria reported that she felt empathy when she talked to her professor, but she felt no empathy when she read his provided feedback. Jane stated that her long discussions with her professor encouraged her to proceed in learning. Thus, professors are recommended to discuss their provided feedback with their students, which could improve feedback perceived usefulness (e.g., Black & Wiliam, 2009; Carless, 2006; Carless & Winstone, 2020). This could reflect empathy.

Finally, many feedback interpretations could result from unfamiliarity among persons. For instance, Mary explained that her professor repeated one specific phrase for three times in one single paragraph. She said that she felt sad because she thought he was angry. Mary’s interpretation was a result of her unfamiliarity with her professor. Maria also reported that when she read the unfocused feedback on her assignment, she assumingly thought that her professor’s

feedback was general because he did not want to orient her in a specific way. Maria's interpretation could be right or wrong. It is just a result of her unfamiliarity with her professor. Both Mary and Maria agreed that being unfamiliar with their professors led to many misinterpretations of feedback points like circles, highlight, colours, arrows, and capital letters. This kind of feedback that is open to interpretations can confuse students and hinder their learning (Black & Wiliam, 2009; Carless, 2006; Duers & Brown, 2009; Winstone & Boud, 2019; Winstone et al., 2017). Ryan and Henderson (2018) report that it is not an easy process for students to receive feedback for learning from an external or unfamiliar source because some other factors like discourse, emotion, identity, and power may positively or negatively affect this process. Therefore, professors are recommended to avoid providing feedback that has many interpretations. This could reflect no empathy.

In summary, to achieve their common goal, professors can agree with students in higher education on how to improve feedback for learning. Teamwork could improve feedback perception when professors help students understand some vague points that students have missed. Feedback discussion could also improve the perception of the provided feedback, which will help students avoid any unintended interpretations.

Professors as feedback providers are strongly recommended to: 1) improve their relationships with their students. Healthy relationships between a professor and a student are found to lead to better teamwork, which could improve the perception of provided feedback and reflect empathy. 2) Discuss the provided feedback with their students. Feedback discussion is found to lead to better understanding, which could reflect empathy. And 3) Avoid using feedback that has open interpretations because it is confusing and it could reflect no empathy.

*Empathy*

Empathy has at least three levels: cognitive, affective, and compassionate empathy (Ekman, 2003; Goleman, 1998; Powell & Roberts, 2017). Cognitive empathy is the lowest level and it is concerned with understanding a person's needs, affective empathy is concerned in looking after a person's feelings, and compassionate empathy is the highest level and it is concerned with providing people with solutions for improving issues or problems in hand (Ekman, 2003; Powell & Roberts, 2017).

For example, let's say a student received the following feedback point, "You certainly did a lot of readings, but wrote too much". This feedback point implies the existence of a problem, which is the student "wrote too much". Understanding and identifying a person's problem or need reflects cognitive empathy (Ekman, 2003) (see Appendix U for 138 examples on feedback that could reflect cognitive empathy). Moreover, the feedback point shows that the feedback provider positively feels with the student by appreciating the fact that the student did sufficient reading. Feeling positively with a person reflects affective empathy (Ekman, 2003) (see Appendix V for 30 examples on feedback that could reflect affective empathy). So this feedback point meets both the cognitive and affective empathy criteria (see Appendix W for 24 examples on feedback that could reflect cognitive and affective empathy). However, the feedback point fails to suggest any possible actions for improvement. For instance, it could have suggested omitting some highlighted parts to meet the criterion in hand. Identifying the person's needs, student in this case, respecting his or her feelings, and suggesting actions for improvement would be categorized as "compassionate empathy" (Ekman, 2003). They are highly recommended.

Back to the previously mentioned feedback point of

You may want to take a look at Elizabeth Young Bruehl's *The Biographer's Empathy with her Subject* (1988), she speaks of how her own identifications with her research subjects, Anna Freud and Hannah Arendt, also led her on a "self-quest" that had an impact on her both privately in what she was able to explore about herself and professionally as an academic.

This feedback suggests a solution and more importantly explains why this solution is more likely to work. Many professors could write "Look at Elizabeth Young Bruehl's *The Biographer's Empathy with her Subject* (1988)". This abbreviated feedback point could confuse students because it does not explain "Why to read", i.e. the goal is missing, which could reflect no empathy (see Appendix X for 84 examples of feedback that could reflect no empathy).

In our study, some examples of attitudinal items, which reflected no affective empathy, were reported by Jane, Mark and Laura. Jane received the following email from her first supervisor, "I understand this is not your topic because your Bachelor was in science, and you're kind of handicapped." According to Jane, using the word "handicapped" stressed Jane for some time and it drove her to lose trust in that supervisor. Mark also stated that when he submitted his first draft of the proposal, his first supervisor gave him a feedback point that affected him negatively. The feedback consisted of only one line, which was "It is not good. Do it again". Mark was sad and confused because that attitudinal feedback was not helpful to him. Lastly, Laura said that when she wrote an idea that was supported by three or four other authors, her supervisor wrote that he did not like her "laundry list" or "shopping list". Laura did not appreciate these expressions, but he kept using them. Thus, professors are recommended to provide feedback that understands student needs, respects student feelings, and suggests solutions that can enhance student learning (e.g., Brokhart, 2007, 2008; Carless, 2006; Carless &

Boud, 2020; Hyland, 2003; Irons & Elkington, 2022; Lui & Andrade, 2022; Pazio Rossiter, 2022a; Sadler, 2009; Winstone & Boud, 2022). This feedback we could call “empathic feedback” (see Appendix Y for 41 examples on feedback that could reflect compassionate empathy).

### *Prospective Barriers*

Although providing useful feedback for learning for students in higher education looks easy, it can be positively or negatively influenced by many prospective barriers like feedback quantity and timing; technology and class size; and the responsibility of providing useful feedback (Balloo et al., 2018; Bone, 2006; Carless, 2006; Carless & Boud, 2018; Lizzio & Wilson, 2008; Winstone & Boud, 2019; Winstone et al., 2017). In this study, Mary reported that she received sufficient amount of feedback on her assignment. The feedback consisted of two parts: written and audio. Mary shared with the researcher the written part, but the audio or oral part was beyond the limit of this study. Likewise, Mary received that feedback two months before her final paper due-time. This shows that the feedback that Mary received was appropriate in terms of both quantity and timing. However, the feedback was negative and hence could reflect no empathy. Instead of a negative feedback, Mary was looking for a balanced feedback, which could show her weak points as well as her strong ones (e.g., Duncan, 2007; Mahony, 2008; Rakoczy et al., 2019; Winstone & Boud, 2022). But that did not happen. Although both feedback quantity and timing were appropriate, there was the problem of content appropriateness. The feedback appropriate quantity and appropriate timing did not improve the feedback quality, hence Mary’s negative reaction. This feedback could reflect no empathy.

Similarly, despite the fact that Emily received a large quantity of feedback on her assignment, it was received six days before her oral defence. Emily perceived that feedback as

negative and ignored it because it was late and more importantly it was irrelevant to her work as Emily stated. Emily was seeking relevant and early feedback, which can improve her learning (e.g., Bone, 2006; Carless & Winstone, 2020; Harks et al., 2014; Koh, 2010; Shute, 2008). In Emily's case, the large feedback quantity received confused her because it was late and beyond the limits of her research. Feedback quantity and timing negatively affected Emily's provided feedback, which could reflect no empathy.

Likewise, Jane reported that the feedback she received on her PhD proposal from two of her committee members consisted of only two feedback points each. She thought that feedback quantity was so small, which affected her negatively. She said, "I don't think they really care". Students dislike scarce feedback (Bone, 2006; Carless, 2006; Irons & Elkington, 2022; Lizzio & Wilson, 2008; Winstone et al., 2017). This feedback could reflect no empathy. Hence, professors need to give more attention to feedback quantity and timing as these factors can positively or negatively affect the perceived empathy of provided feedback (e.g., Carless, 2006; Shute, 2008).

In the same vein, technology and class size can positively or negatively affect the perception of the provided feedback (Agius & Wilkinson, 2014; Carless, 2006; Carless & Boud, 2018; Wiliam, 2011, 2017). Out of the interviewed participants, Mary was the only one who was still taking classes. She confirmed that large classes and online classes can affect the provided feedback. She reported that empathy can be negatively affected by online classes because in many cases, professors cannot see their students. Mary added that when a professor has a class of more than 20 students, providing useful feedback becomes a hard task. This is compatible with research on perceived usefulness of formative assessment for learning in higher education. Carless and Boud (2018, p. 1316) argue that "It is unrealistic and ineffective to expect teachers to provide more and more comments to large numbers of learners". Large classes and lack of

knowledge in technology can negatively affect the provided feedback (Agius & Wilkinson, 2014; MacLellan, 2010; Perera et al., 2008). However, all other six participants agreed that class size and technology did not have any effect on their provided feedback as those participants were in their final stages of their studies. Their main interest was in feedback quality, which will improve their learning (e.g., Bailey & Garner, 2010; Irons & Elkington, 2022; Rakoczy et al. 2019; Shute, 2008; Winstone & Boud, 2022). Therefore, professors are recommended to focus on providing quality feedback to help students move forward in learning. This feedback could reflect empathy.

Accepting the responsibility for providing useful feedback could be another barrier for many professors. All interviewed students agreed that providing useful feedback was the responsibility of the feedback provider. To better take the responsibility of providing useful feedback, the participants suggested that professors should educate themselves about the topic in hand; focus their feedback on content; remember that students see professors as models; be mentors; show their interests in providing feedback; follow up with students; show their care in the provided feedback; and have mutual learning with their students. These results agree with research on formative assessment. According to Piccinin (2003), feedback providers should continuously work on themselves and improve their skills. Likewise, Sadler (1998) argues that feedback provided to learners should focus on the content (p. 84). Useful feedback is the responsibility of the feedback provider (Black & Wiliam, 2009; Brookhart, 2008, 2017; Hyland, 2006; Irons & Elkington, 2022; Leighton, 2019; Sadler, 2010; Winstone & Boud, 2022). When professors take that full responsibility of providing students in higher education with feedback for learning, that feedback is more likely to be perceived as useful and reflect empathy.

In summary, in higher education, feedback for learning that could be perceived as useful and could reflect empathy is possible. It can be achieved when the provided feedback meets student needs, respects student feelings, and provides solutions for improving student learning. Barriers like feedback quantity and timing; class size and technology; and accepting the responsibility of providing useful feedback can be minimised when feedback providers: 1) Build healthy relationships with students, 2) Show care and interest in the provided feedback, and 3) Discuss the provided feedback with students and follow up, 4) Have mutual learning with students, and 5) Focus on the content in hand.

### **Study Implications**

This study was conducted in response to a call for research by Hattie and Timperley (2007). The two authors suggested that “[feedback] needs to be more fully researched by qualitatively and quantitatively investigating how feedback works in the classroom.” (p. 104). Likewise, the study filled a gap, given a relative dearth in the literature on the perceived empathy of written language employed by professors when providing feedback to graduate students. Additionally, this study’s results supported with new evidence the functionality of the “Theory of Language Register” (Halliday, 1985) in the assessment field in general and in formative feedback specifically. More importantly, this study provided professors with an adequate description about the nature of the appropriate language that they may use to provide students with feedback that could be perceived as “empathic feedback”. Most importantly, it provided professors with a prescription about the content of “empathic feedback” that they may employ when they provide feedback for learning to students. This content meets student needs, respects student feelings, and suggests actions for improvement.

This study is intended to support professors and increase their language options, which may encourage them to use their skills in a more appropriately recognised way. This use will more likely lead to healthier relationships and more effective communication among participants, which will enhance student learning (Carless & Winstone, 2020; Panadero & Lipnevich, 2022; Sadler, 2015; Wiliam, 2017).

### **Limitations and Further Direction for Research**

Despite the fact that interviewing seven participants and collecting and analysing the written feedback points on their assignments were adequate to answer the two presented research questions in this study, more participants would allow greater generalization of results. This generalization would assist all involved participants like professors and decision makers to invest more via research and workshops on how “empathic feedback” should be provided to students.

Participants in this research were all Canadian citizens, but there is lack of information on student characteristics, including cultural identities, gender, and the native language of each participant. Different cultures may have different ways of understanding and perceiving ideas. Moreover, male and female students may differ in the perception of ideas. Likewise, a student’s native language may negatively or positively affect their understanding and perception of English. Future studies might compare and contrast how different cultures, genders, and/or student’s native language might differ in their perceptions of empathy and provided feedback.

Students who volunteer to share their work may have been those who were particularly frustrated with the feedback process. In this case, participants may perceive differently because they might be under stress as a result of some negative past incidents and/or negative memories that were attached to them towards the feedback process. Future studies may research how

different emotional situations might affect students' perception of empathy and formative written feedback.

Time between when participants first received the feedback and when interviewed about it might have impacted participants' perception of empathy. The longer the duration of time between receiving the feedback and interviewing participants, the more likely those participants forget some details that could have changed some of the results. However, future research may want to take this issue into consideration as it may have impacted what we learned about empathy in written feedback.

In an ideal situation where professors have good relationships with their students, professors may not have to be particularly concerned about the language they use to provide feedback in order for their written comments to be perceived as useful and empathic. However, building good relationship with students in a class of a hundred students or more can be difficult and an unpractical process for professors because of time limits. Future research can study the type of professor-student relationships that can allow both professors to use their existing writing styles and students to perceive their professors written feedback as empathic.

This study is a new addition to the literature of formative assessment. Previous studies in formative assessment focused on timing, quality, or quantity of the feedback provided to students. However, this study established the connection between formative feedback, empathy, and language. However, more research is required on investigating what affects the language that professors use when they provide written feedback for learning, and why this is different from one professor to another. This knowledge may help professors realize some differences among themselves while providing feedback. Consequently, professors may improve their skills and strategies. Once they adapt and improve their skills, professors can guide and teach students how

to deal with the feedback provided. This could help students perceive the provided feedback as empathic, which may reduce any gaps in understanding between what is provided by professors and what is perceived by students in terms of what is to be fixed, why, and how. This may bring professors and students to the same page. Despite the above limitations, I believe that this study makes a meaningful contribution to the improvement of perceived empathy of feedback for learning provided to students in higher education.

### **Concluding Remarks**

Ideational, interpersonal, textual, and appraisal meanings are found to positively or negatively affect the perceived empathy of the written feedback provided to graduate students. Professors are recommended to increase the employment of ideational meanings of material processes, mental processes, verbal processes, nominalised imperfective clauses, verbal classifiers, derived verbal nouns, non-human participants, passive voice, and circumstances; the interpersonal aspects of declarative statements, yes/no questions, wh-questions, modalization (usuality), modulation (inclination) and vocatives (second person); the textual meanings of interpersonal Theme, textual Theme, lexical density, continuity, conjunction, cohesion and emphasis, clause complex, and expansion (elaborating and extending); and the appraisal meanings of positive force, positive focus, positive judgment, positive appreciation, positive emotion, proclamation, entertainment and attribution in their written feedback provided to students. This feedback is found to be more likely perceived by students as reflecting empathy.

In contrast, professors are advised to decrease the use of the ideational meanings of behavioural processes, existential processes, relational processes, underived verbal nouns, nominalised adjectives, abstractions, human participants, missing participants and active voice; the interpersonal meanings of imperative statements, not-full questions, modalization

(probability), modulation (obligation), personal pronouns and vocatives (third person); the textual meanings of topical Theme, structural textual adjuncts, no cohesion, ranking clauses and grammatical intricacy; and the appraisal meanings of negative force, negative focus, negative judgment, negative appreciation, negative emotion and disclaim in their written feedback to students. This feedback is found to be more likely perceived by students as reflecting no empathy.

Feedback will be perceived as empathic if, firstly, it answers student needs by identifying what and why an issue needs to be fixed so that students can avoid making similar mistakes in the future. Similarly, students need to understand what and why an issue is accepted so that they can repeat it. Secondly, it understands and respects student feelings, which will encourage students to move forward to the next step in learning. This may support social emotional dimensions of feedback, especially when a solid student-professor relationship cannot be developed because they just met, the course in hand is online/asynchronous, or the class in hand is extremely large. Finally, the feedback provides suggested solutions for fixing the issue(s) in hand, which will enhance student learning.

Moreover, feedback can be perceived as empathic when professors provide feedback that focuses on both form and content, boosts solidarity between professors and students, and overcomes prospective barriers like feedback quantity, feedback time, technology, and class size. Failing to provide empathic feedback is found to overload students with heavy burdens, confuse and stress them, waste their time and effort, undermine the relationship between professors and students, and drive them to make unwanted decisions, for instance, leave a learning episode or stop learning. This puts more responsibility on professors as they are feedback providers. Many professors are requested to improve their own skills and educate themselves. Besides, they are

requested to invest more time and effort to try to understand the needs of their students, respect their feelings, and suggest solutions that empower them to move forward in learning.

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**Appendices**

Appendix A

Examples on Types of Process Adapted from (Eggins, 2004, p. 213-4)

Diana gave some blood.	[material]
Diana thought she should give blood.	[mental]
Diana said that giving blood is easy.	[verbal]
Diana dreamt of giving blood.	[behavioural]
There is a reward for giving blood.	[existential]
Diana is a blood donor.	[relational]

**Appendix B**

**Recruitment Text for Interviewing Students**

Dear student,

My name is Nidhal Qwai. I am conducting a PhD in Leadership, Evaluation and Curriculum Studies at the Faculty of Education at the University of Ottawa. The focus of my research is on how “empathy” is reflected in written feedback provided to graduate students, and how the provided feedback is perceived by those students - a topic with which you as a student are highly involved. My research tries to honour your voice. One primary component of this research is to conduct interviews with students as they are the receivers and decoders of written feedback. The conducted data can help me as an investigator to better understand how empathy is reflected in the linguistic style and written feedback that professors provide to students.

At this time, I would like to invite you to participate in my study. Your input as a student about your perceptions of written feedback is of crucial importance because you are the learner. Learners often know best what they are looking for. This project has received the ethics approval from the University of Ottawa. If you agree to take part in this project, you will be interviewed once about an important assignment you submitted in one of your semesters. The assignment could also be a paper, a comprehensive exam, a thesis proposal, or even a thesis as long as it has written feedback. Your assignment with the written feedback on it will be collected two weeks prior to the date of the interview. The interview will focus on the written feedback from each collected assignment as well as the student’s voice regarding the process of formative feedback. The interview will take place at a time at the student’s convenience. It will take approximately

30-40 minutes. It will be audio-recorded to provide a record of our conversation and to help the researcher in further analysis.

Participation in the research is entirely voluntary. You would be free to withdraw at any time. This means that even though you agree initially to the interviews, you can withdraw from any interview at any point. Further, you may ask questions at any time, and you may refuse to answer any of the questions, with no negative consequences on you.

The results of this study will be incorporated in my PhD's dissertation. The results might also be published in an academic journal. However, your identity and your professor's identity will always remain confidential as pseudonyms will be used. Moreover, you can delete any identifying information of your professor. I will have sole access to the data for analysis, and all data (soft and hard copies) will be kept password protected in a secure locked place at the office of the researcher. Finally, all data will be destroyed within five years after the completion of my PhD degree.

Should you have any questions, please do not hesitate to contact me any time. Please let me know if you are interested in participating within the next week so we can arrange an interview time that fits both of our schedules.

**Thank you again for considering to participate in this study.**

Nidhal Qwai

**Appendix C**

**Consent Form**

Project Title: Empathy in Written Feedback to Graduate Students

Names of researchers and contact information

**Nidhal Qwai**

**David Trumpower, Ph.D.**

Faculty of Education

University of Ottawa

\*\*\*\*\*

**Invitation to Participate:** I have been invited to participate in a research project conducted by Mr. Nidhal Qwai as part of PhD thesis completion under the supervision of Professor David Trumpower as part of his course, Edu 9997 PhD thesis proposal, at the University of Ottawa.

**Purpose of the Study:** The purpose of the study is to collect information on how empathy is reflected in the written formative feedback provided to graduate students and how that feedback is perceived by those students.

**Participation:** My participation will consist of participating in an interview about my experiences with this issue. The time needed for this is approximately 30-40 minutes. The meeting will take place online at a time convenient to me. Mr. Nidhal Qwai will audio-record my responses. In addition, I will give Mr. Nidhal Qwai a copy of a corrected assignment in one of the courses I had for his further analyses. As a participant, I have the option to review the transcripts and to be provided with the details of the process via password-protected files. Revisions will be completed within a timeline of two weeks.

**Assessment of Risks:** My participation in this study entails no foreseeable risks. However, if I experience any discomfort, Mr. Nidhal Qwai has assured me that he will make every effort to minimize this discomfort. I may decide to stop the interview at any time.

**Benefits:** By expressing some personal ideas about my experiences on how empathy is reflected and perceived of the written feedback provided on graduate students' assignments, I will contribute to an enlarged understanding of the subject from the perspective of a university student in this circumstance.

**Privacy of participants:** I have received assurance from Mr. Nidhal Qwai that the information I share will remain strictly confidential. My identity will be protected by using pseudonyms during interviewing and in the thesis. The contents will be used only for this course assignment.

**Confidentiality and conservation of data:** The data will be used for the purpose of the future thesis work of the student researcher. I have been assured that the audio recording will be kept in a secure manner at the researcher's home during the research. As the collected data will be used as part of the student researcher's thesis work, the data will be securely safeguarded for a minimum of five years along with the other data collected for the thesis.

**Voluntary Participation:** I am under no obligation to participate, and if I choose to participate, I can withdraw from the study at any time and/or refuse to answer any questions, without suffering any negative consequences. If I choose to withdraw, all data gathered until the time of withdrawal will be destroyed.

**Acceptance:** I, \_\_\_\_\_, agree to participate in the above research study conducted by Mr. Nidhal Qwai as part of his thesis requirements for PhD of Education, under the supervision of Professor David Trumpower, at the Faculty of Education, University of Ottawa.

## EMPATHY IN WRITTEN FEEDBACK TO GRADUATE STUDENTS

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If I have any questions about the study, I may contact Mr. Nidhal Qwai or Professor David Trumpower.

If I have any questions regarding the ethical conduct of this study, I may contact the Office of Research Ethics and Integrity, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5

Tel.: [613] 562-5387

Email: [ethics@uottawa.ca](mailto:ethics@uottawa.ca)

There are two copies of the consent form, one of which is mine to keep.

---

Participant's name

Signature:

Date:

Researcher's name

Signature:

Date:

Appendix D

Participants' Interview Protocols

<b>Name:</b>	<b>Participant's pseudonym:</b>
<b>Date of interview:</b>	<b>Time of interview:</b>
<b>Age:</b>	<b>Gender:</b>
<b>First Language</b>	<b>Cultural Identity:</b>
<b>Status in the MA/PhD program:</b>	<b>Are you familiar with the professor:</b>

\*\*\*\*\*

<b>No.</b>	<b>Question</b>	<b>Concept to be addressed</b>
1.	How did you react when you saw your professor's written feedback for the first time? Why?	Cognitive and Affective empathy + Linguistic style
2.	How did you act on the feedback you received to improve learning?	Compassionate empathy + Linguistic style + Formative feedback
3.	Did you think the quantity of the feedback provided on your assignment was appropriate to improve your learning? (Was it too much or not enough, how?	Compassionate empathy + Linguistic style + Formative feedback

**EMPATHY IN WRITTEN FEEDBACK TO GRADUATE STUDENTS**

4.	<p>Did you think the time of the feedback provided on your assignment was appropriate to improve your learning?</p> <p>Did you receive it too soon or too late after you have submitted your assignment? Pls. explain.</p>	<p>Compassionate empathy + Linguistic style + Formative feedback</p>
5.	<p>Did you think the quality of the feedback provided on your assignment was appropriate to improve your learning? Did you think general or detailed feedback motivate your learning? How?</p>	<p>Compassionate empathy + Linguistic style + Formative feedback</p>
6.	<p>Did you discuss the provided feedback with your professor? If yes, did it impact the way you perceived the written feedback? If no, would you have to? Why? Why not?</p>	<p>Compassionate empathy + Linguistic style + Formative feedback</p>
7.	<p>Was the feedback you got consistent with what you have hoped for to support your learning? Pls. explain.</p>	<p>Compassionate empathy + Linguistic style + Formative feedback</p>
8.	<p>What in the written feedback shows that your professor understands your needs and weaknesses? Pls. support your answer with examples.</p>	<p>Cognitive Empathy + Linguistic style</p>
9.	<p>What in the written feedback shows that your professor understands your strengths? Pls. provide some examples.</p>	<p>Compassionate empathy + Linguistic style + Formative feedback</p>
10.	<p>Could the feedback you received be interpreted in more than one way? Pls. explain.</p>	<p>Linguistic style</p>

**EMPATHY IN WRITTEN FEEDBACK TO GRADUATE STUDENTS**

11.	Did you think your professor empathize with you when they provided written feedback on your assignment? Pls. give examples.	Empathy + Linguistic style + Formative feedback
12.	How do you think class size and technology affected the written feedback provided?	Empathy + Linguistic style + Formative feedback
13.	How did your relationship with your professor affected the given feedback? Pls. give examples.	Empathy + Linguistic style + Formative feedback
14.	Can you give examples of some expressions from that feedback that affected your learning negatively?	Empathy + Linguistic style + Formative feedback
15.	Can you give examples of some expressions from that feedback that affected your learning positively?	Empathy + Linguistic style + Formative feedback
16.	Would you like to add anything else related to feedback on this assignment and how it impacted you?	Empathy + Linguistic style + Formative feedback

Appendix E

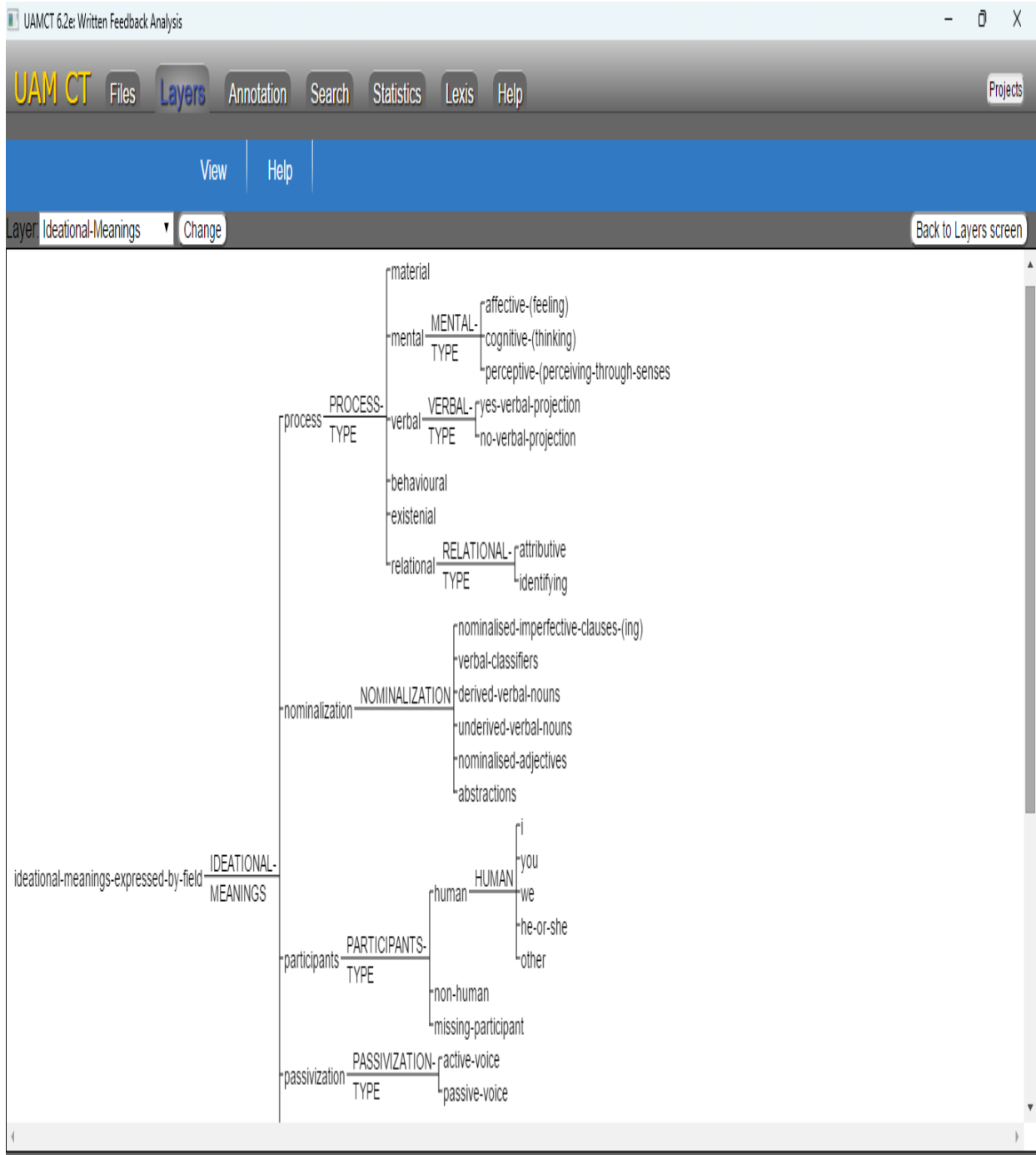
An Overview of the Six Layers Built for This Study

The screenshot shows the 'Layers' tab in the UAMCT 6.2e: Written Feedback Analysis software. The interface includes a menu bar with options like 'Files', 'Layers', 'Annotation', 'Search', 'Statistics', 'Lexis', and 'Help'. Below the menu is an 'Add New Layer' button. The main area contains a table with the following data:

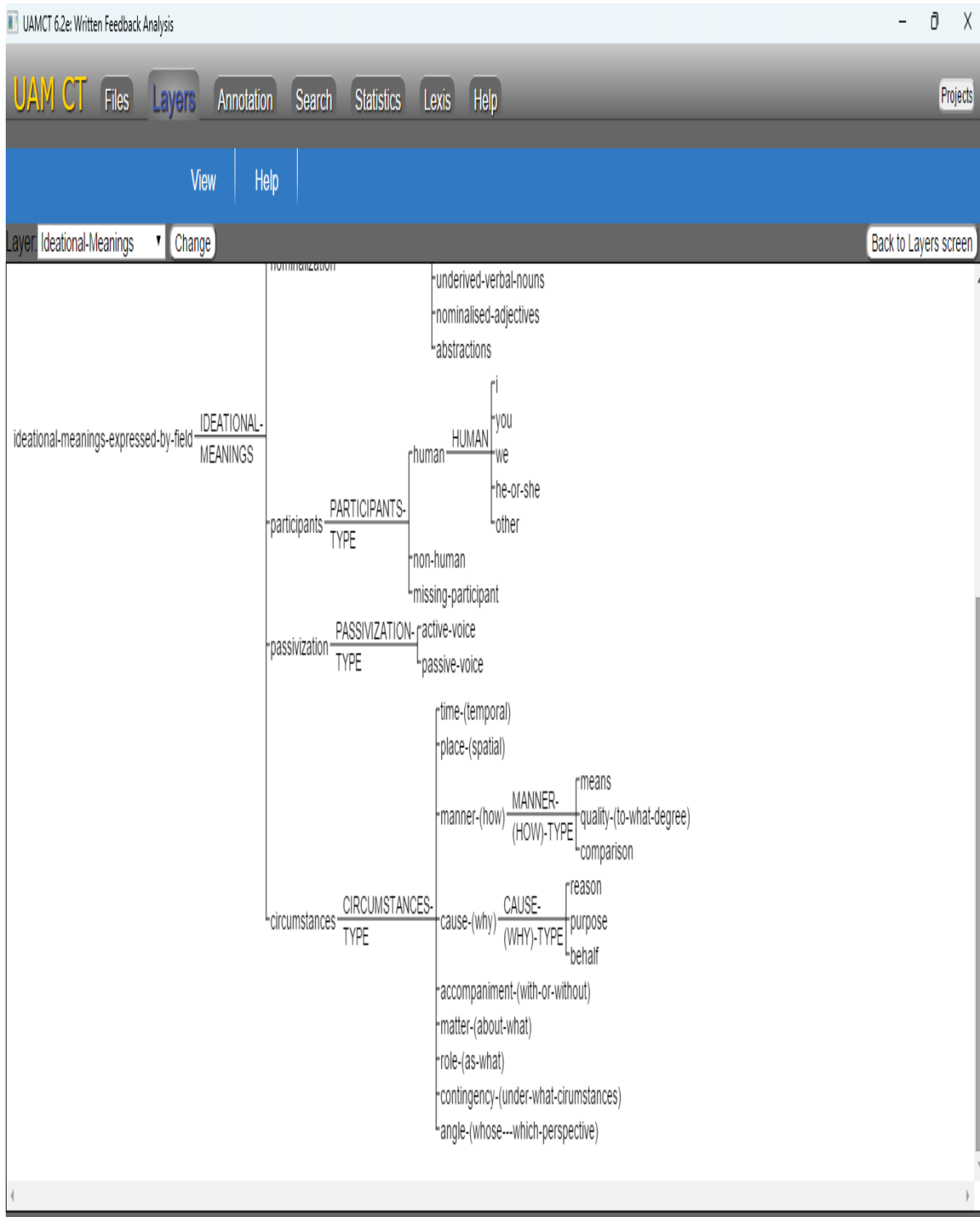
Name	Type	Subtype	Autosegment?	Special		
Ideational-Meanings	manual	segment	No	No	Edit Scheme	Delete Layer
interpersonal-Meanings	manual	segment	No	No	Edit Scheme	Delete Layer
Textual-Meanings	manual	segment	No	No	Edit Scheme	Delete Layer
Appraisal	manual	segment	No	No	Edit Scheme	Delete Layer
Empathy	manual	segment	No	No	Edit Scheme	Delete Layer
Clauses	manual	segment	No	No	Edit Scheme	Delete Layer

Appendix F

An Overview of Ideational Meanings layer (1)

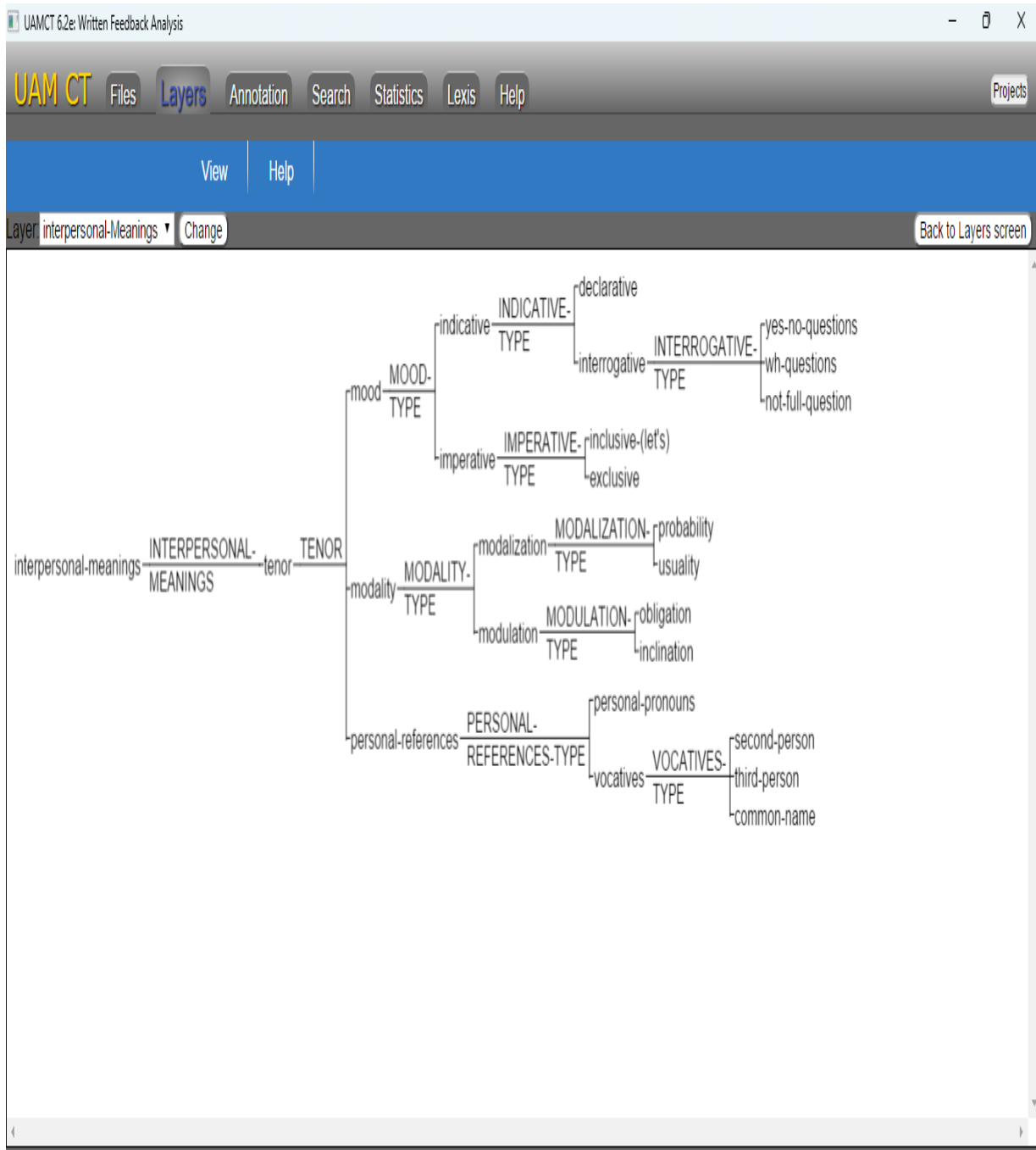


An Overview of Ideational Meanings layer (2)



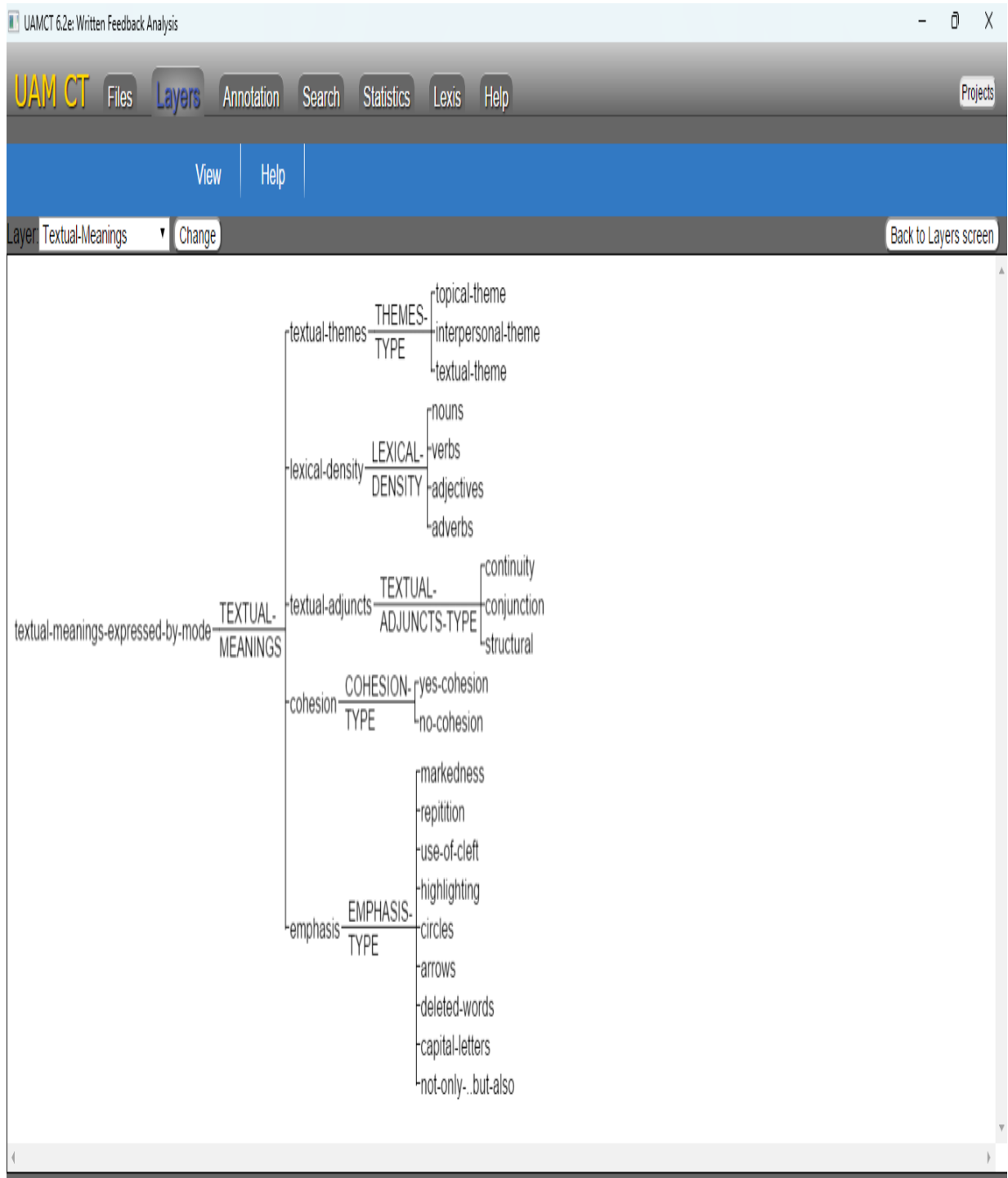
Appendix G

An Overview of Interpersonal Meanings Layer



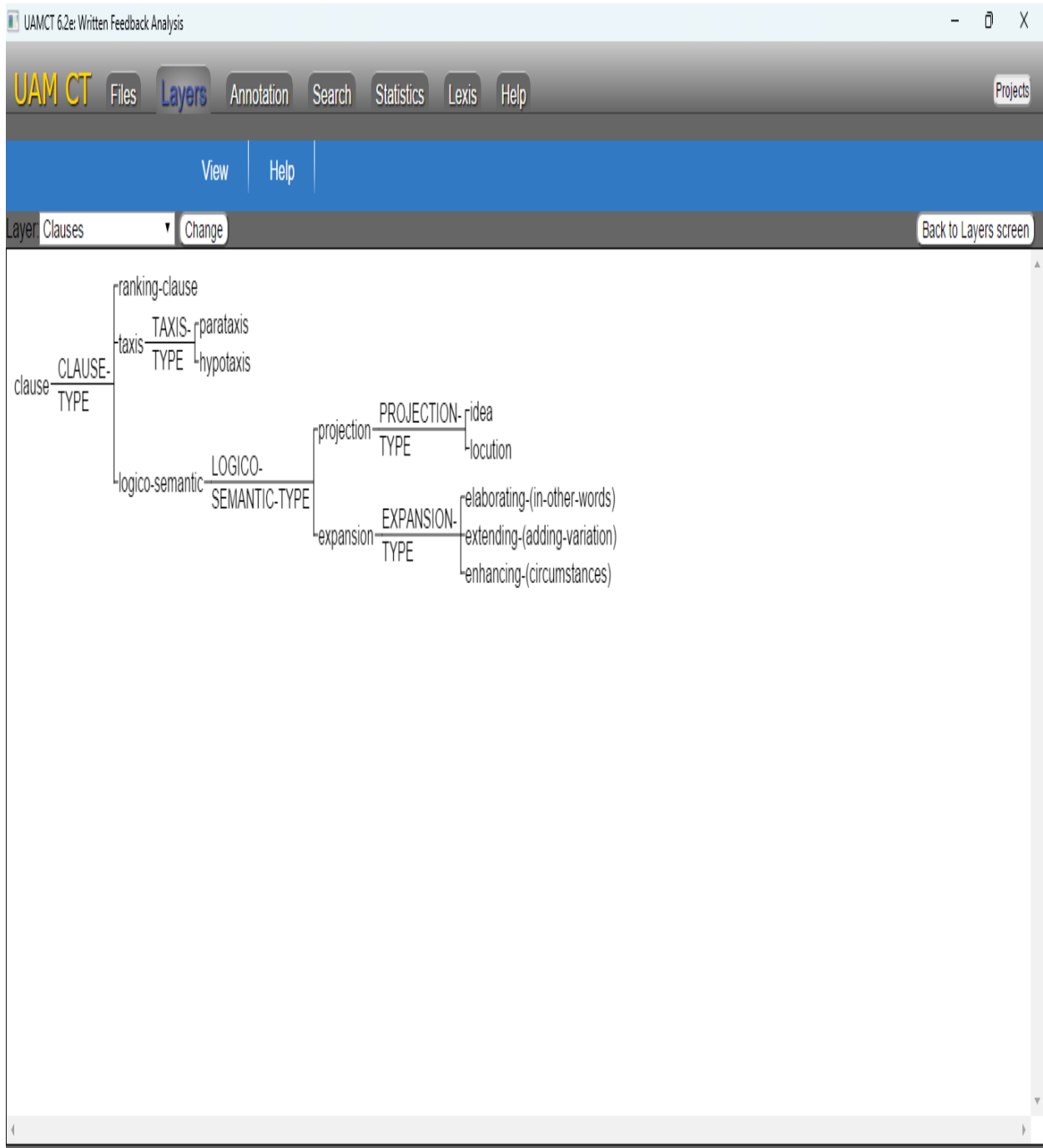
Appendix H

An Overview of Textual Meanings Layer



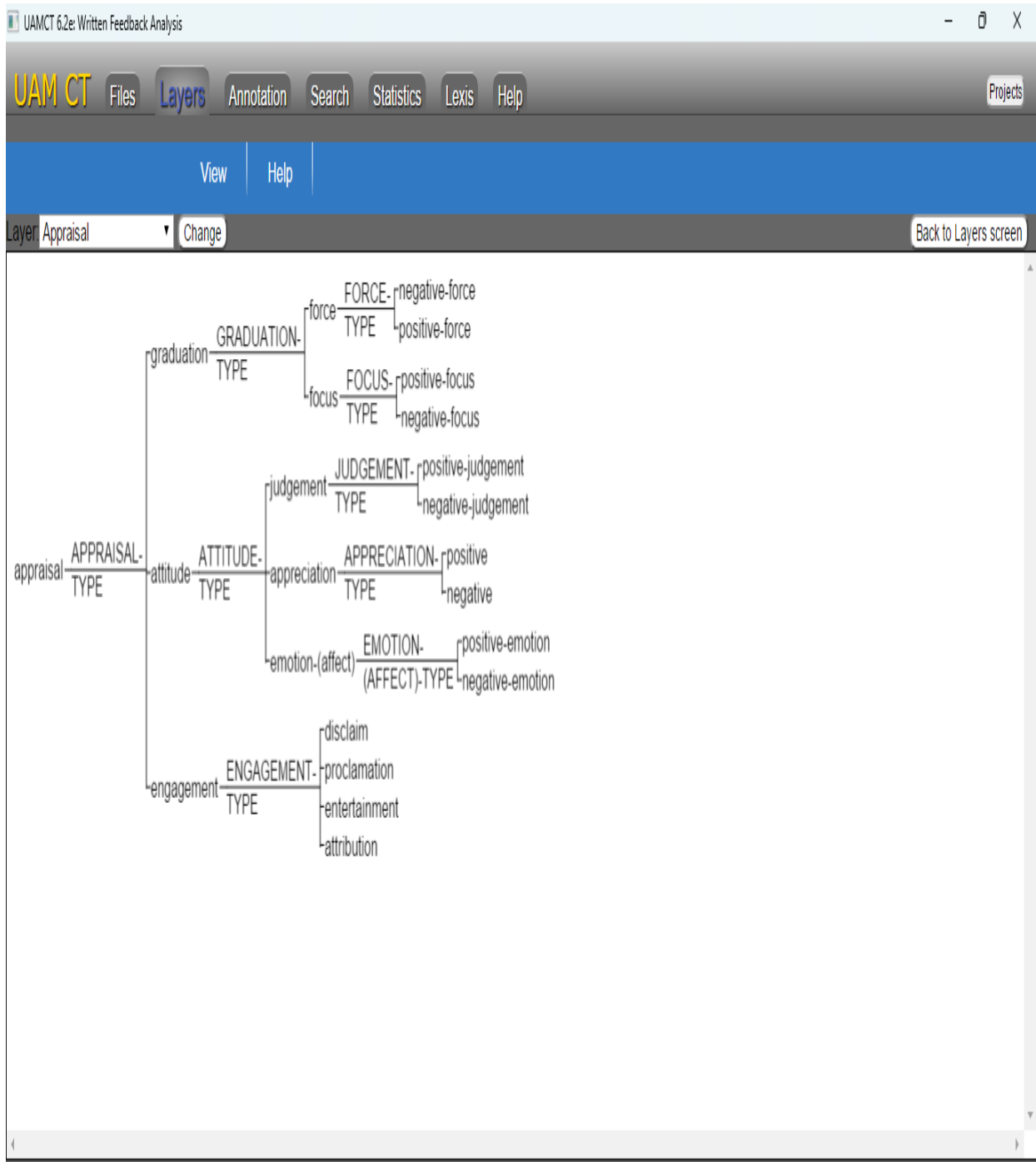
Appendix I

An Overview of the Clauses Layer



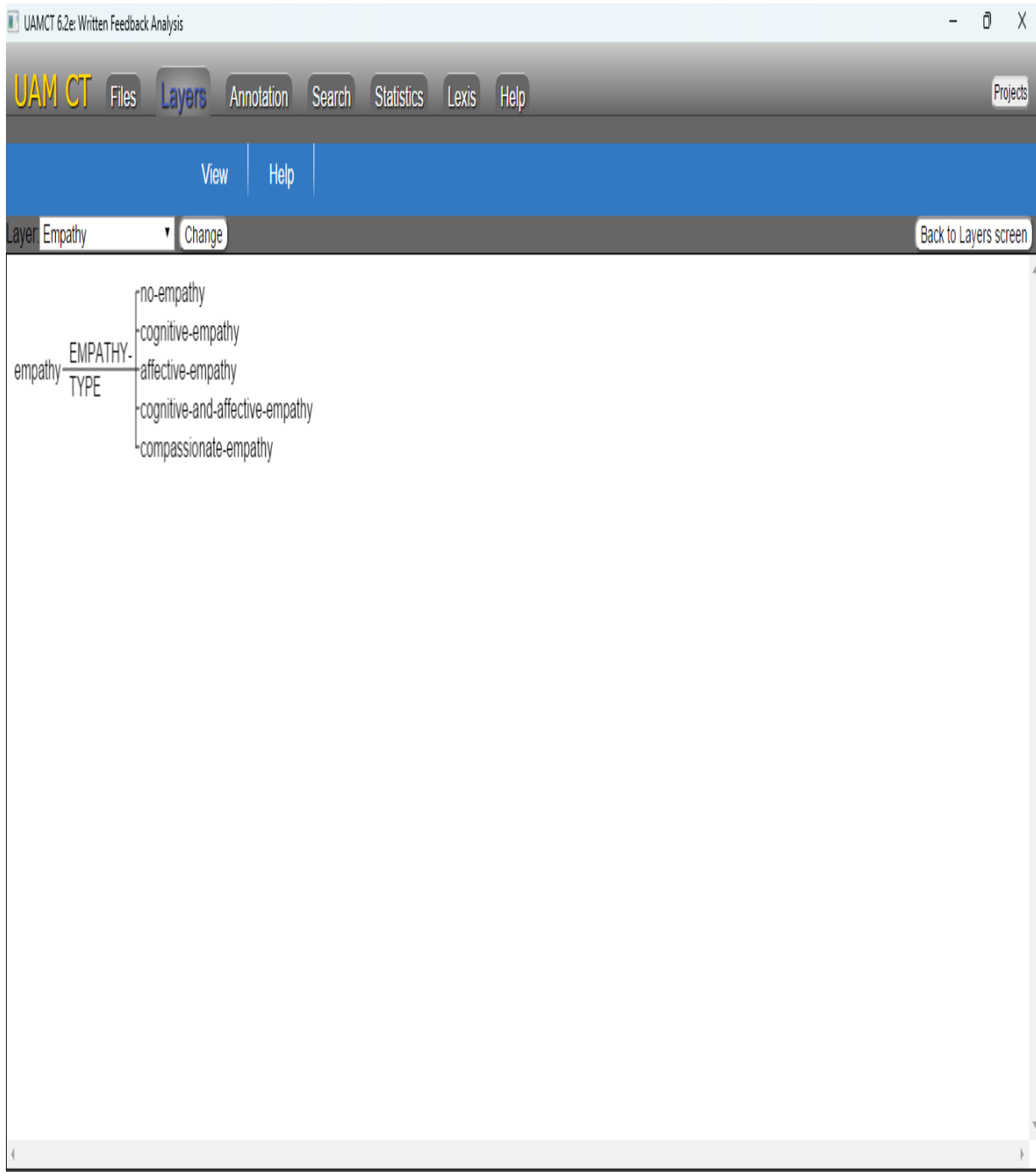
Appendix J

An Overview of the Appraisal Layer



Appendix K

An Overview of the Empathy Layer



Appendix L

Adapted from Martin's Cline of Nominalization (1986, p. 242)

- a. nominalised imperfective (·ing) clauses: the killing of ...
- b. verbal Classifiers: sealing operation
- c. derived verbal nouns: implication
- d. underived verbal nouns: hunt
- e. nominalised adjectives: wildness
- f. abstractions': nationhood

Appendix M

Emerging Themes and Sub-Themes with Their Literature Support

Emerging Themes	Emerging Sub-Themes	Literature Support
<b>Feedback Form and Content</b>	Positive Feedback Negative Feedback Feedback Quality Feedback Writing Style	Hyland (2003), Brookhart (2008), Wiliam (2011) Piccinin (2003), Bailey & Garner (2010) Black and Wiliam (2006, 2010) Alamis (2010)
<b>Solidarity</b>	Multiple Interpretations Feedback Discussion Teamwork	Hyland (2003), Carless (2006), Wiliam (2011) Brookhart (2007), Black & Wiliam (2006) Sadler (2010)
<b>Empathy is Needed</b>	Student Feelings Student Needs and Strengths What is the Issue? What is the Goal?	Brookhart (2007), Black & Wiliam (2006) Sadler (2009) Sadler (2009), Shute (2008) Sadler (1998)
<b>Prospective Barriers</b>	Feedback Quantity Feedback Timing Class Size Technology Feedback is a Responsibility	Bone (2006), Carless (2006), Perera et al. (2008) Duncan (2007), Koh (2010) Shute (2008) Carless (2006), Shute (2008) Hattie & Timperley (2007), Hyland (2003, 2006)

Appendix N

Ideational Meanings for Each Text

IDEATIONAL-MEANINGS	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- process	19	54.3	62	27.7	130	23	64	16.2	33	22.3	45	22.2	30	18.6
- nominalization	4	11.4	59	26.3	165	29.3	176	44.6	46	31.1	76	37.4	55	34.2
- participants	9	25.7	37	16.5	122	21.6	61	15.4	35	23.6	36	17.7	35	21.7
- passivization	3	8.6	43	19.2	114	20.2	68	17.2	28	18.9	34	16.7	33	20.5
- circumstances	0	0	23	10.3	33	5.9	26	6.6	6	4.1	12	5.9	8	5
<b>TOTAL:</b>	<b>35</b>	<b>100.00%</b>	<b>224</b>	<b>100.00%</b>	<b>564</b>	<b>100.00%</b>	<b>395</b>	<b>100.00%</b>	<b>148</b>	<b>100.00%</b>	<b>203</b>	<b>100.00%</b>	<b>161</b>	<b>100.00%</b>
PROCESS-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- material	0	0	7	11.3	29	22.3	8	12.5	4	12.1	4	8.9	3	10
- mental	0	0	16	25.8	19	14.6	9	14.1	1	3	10	22.2	6	20
- verbal	19	100	4	6.5	5	3.8	4	6.3	5	15.2	7	15.6	1	3.3
- behavioural	0	0	12	19.4	43	33.1	23	35.9	12	36.4	13	28.9	12	40
- existential	0	0	3	4.8	0	0	6	9.4	0	0	1	2.2	2	6.7
- relational	0	0	20	32.3	34	26.2	14	21.9	11	33.3	10	22.2	6	20
<b>TOTAL:</b>	<b>19</b>	<b>100.00%</b>	<b>62</b>	<b>100.00%</b>	<b>130</b>	<b>100.00%</b>	<b>64</b>	<b>100.00%</b>	<b>33</b>	<b>100.00%</b>	<b>45</b>	<b>100.00%</b>	<b>30</b>	<b>100.00%</b>
MENTAL-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- affective-(feeling)	0	NaN	0	0	1	5.3	1	11.1	0	0	0	0	1	16.7
- cognitive-(thinking)	0	NaN	13	81.3	17	89.5	7	77.8	0	0	10	100	3	50
perceptive-(perceiving-through-senses)	0	NaN	3	18.8	1	5.3	1	11.1	1	100	0	0	2	33.3
<b>TOTAL:</b>	<b>0</b>	<b>NaN%</b>	<b>16</b>	<b>100.00%</b>	<b>19</b>	<b>100.00%</b>	<b>9</b>	<b>100.00%</b>	<b>1</b>	<b>100.00%</b>	<b>10</b>	<b>100.00%</b>	<b>6</b>	<b>100.00%</b>
VERBAL-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- yes-verbal-projection	0	0	2	50	4	80	3	75	2	40	1	14.3	1	100
- no-verbal-projection	19	100	2	50	1	20	1	25	3	60	6	85.7	0	0
<b>TOTAL:</b>	<b>19</b>	<b>100.00%</b>	<b>4</b>	<b>100.00%</b>	<b>5</b>	<b>100.00%</b>	<b>4</b>	<b>100.00%</b>	<b>5</b>	<b>100.00%</b>	<b>7</b>	<b>100.00%</b>	<b>1</b>	<b>100.00%</b>
RELATIONAL-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- attributive	0	NaN	20	100	30	88.2	12	85.7	10	90.9	10	100	6	100
- identifying	0	NaN	0	0	4	11.8	2	14.3	1	9.1	0	0	0	0
<b>TOTAL:</b>	<b>0</b>	<b>NaN%</b>	<b>20</b>	<b>100.00%</b>	<b>34</b>	<b>100.00%</b>	<b>14</b>	<b>100.00%</b>	<b>11</b>	<b>100.00%</b>	<b>10</b>	<b>100.00%</b>	<b>6</b>	<b>100.00%</b>
NOMINALIZATION	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- nominalised-imperfective-clauses-(ing)	0	0	5	8.5	10	6.1	21	11.9	5	10.9	2	2.6	3	5.5
- verbal-classifiers	1	25	0	0	0	0	5	2.8	0	0	1	1.3	3	5.5
- derived-verbal-nouns	3	75	13	22	37	22.4	33	18.8	20	43.5	6	7.9	9	16.4
- underived-verbal-nouns	0	0	31	52.5	64	38.8	48	27.3	17	37	40	52.6	11	20
- nominalised-adjectives	0	0	5	8.5	11	6.7	7	4	3	6.5	3	3.9	0	0
- abstractions	0	0	5	8.5	43	26.1	62	35.2	1	2.2	24	31.6	29	52.7
<b>TOTAL:</b>	<b>4</b>	<b>100.00%</b>	<b>59</b>	<b>100.00%</b>	<b>165</b>	<b>100.00%</b>	<b>176</b>	<b>100.00%</b>	<b>46</b>	<b>100.00%</b>	<b>76</b>	<b>100.00%</b>	<b>55</b>	<b>100.00%</b>

# EMPATHY IN WRITTEN FEEDBACK TO GRADUATE STUDENTS

PARTICIPANTS-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- human	0	0	25	67.6	53	43.4	23	37.7	4	11.4	6	16.7	10	28.6
- non-human	0	0	9	24.3	43	35.2	29	47.5	16	45.7	15	41.7	14	40
- missing-participant	9	100	3	8.1	26	21.3	9	14.8	15	42.9	15	41.7	11	31.4
<b>TOTAL:</b>	<b>9</b>	<b>100.00%</b>	<b>37</b>	<b>100.00%</b>	<b>122</b>	<b>100.00%</b>	<b>61</b>	<b>100.00%</b>	<b>35</b>	<b>100.00%</b>	<b>36</b>	<b>100.00%</b>	<b>35</b>	<b>100.00%</b>
HUMAN	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- i	0	NaN	7	28	9	17	3	13	2	50	2	33.3	4	40
- you	0	NaN	14	56	20	37.7	0	0	2	50	2	33.3	4	40
- we	0	NaN	2	8	5	9.4	5	21.7	0	0	1	16.7	1	10
- he-or-she	0	NaN	2	8	0	0	7	30.4	0	0	0	0	0	0
- other	0	NaN	0	0	19	35.8	8	34.8	0	0	1	16.7	1	10
<b>TOTAL:</b>	<b>0</b>	<b>NaN%</b>	<b>25</b>	<b>100.00%</b>	<b>53</b>	<b>100.00%</b>	<b>23</b>	<b>100.00%</b>	<b>4</b>	<b>100.00%</b>	<b>6</b>	<b>100.00%</b>	<b>10</b>	<b>100.00%</b>
PASSIVIZATION-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- active-voice	0	0	42	97.7	112	98.2	58	85.3	25	89.3	28	82.4	32	97
- passive-voice	3	100	1	2.3	2	1.8	10	14.7	3	10.7	6	17.6	1	3
<b>TOTAL:</b>	<b>3</b>	<b>100.00%</b>	<b>43</b>	<b>100.00%</b>	<b>114</b>	<b>100.00%</b>	<b>68</b>	<b>100.00%</b>	<b>28</b>	<b>100.00%</b>	<b>34</b>	<b>100.00%</b>	<b>33</b>	<b>100.00%</b>
CIRCUMSTANCES-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- time-(temporal)	0	NaN	0	0	8	24.2	10	38.5	0	0	2	16.7	0	0
- place-(spatial)	0	NaN	7	30.4	16	48.5	8	30.8	2	33.3	5	41.7	6	75
- manner-(how)	0	NaN	3	13	0	0	1	3.8	2	33.3	0	0	0	0
- cause-(why)	0	NaN	3	13	3	9.1	0	0	2	33.3	0	0	0	0
- accompaniment-(with-or-without)	0	NaN	1	4.3	1	3	0	0	0	0	3	25	0	0
- matter-(about-what)	0	NaN	1	4.3	0	0	0	0	0	0	0	0	0	0
- role-(as-what)	0	NaN	4	17.4	0	0	6	23.1	0	0	1	8.3	1	12.5
- contingency-(under-what-circumstances)	0	NaN	0	0	1	3	0	0	0	0	0	0	0	0
- angle-(whose--which-perspective)	0	NaN	4	17.4	4	12.1	1	3.8	0	0	1	8.3	1	12.5
<b>TOTAL:</b>	<b>0</b>	<b>NaN%</b>	<b>23</b>	<b>100.00%</b>	<b>33</b>	<b>100.00%</b>	<b>26</b>	<b>100.00%</b>	<b>6</b>	<b>100.00%</b>	<b>12</b>	<b>100.00%</b>	<b>8</b>	<b>100.00%</b>
MANNER-(HOW)-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- means	0	NaN	0	0	0	NaN	0	0	0	0	0	NaN	0	NaN
- quality-(to-what-degree)	0	NaN	3	100	0	NaN	1	100	1	50	0	NaN	0	NaN
- comparison	0	NaN	0	0	0	NaN	0	0	1	50	0	NaN	0	NaN
<b>TOTAL:</b>	<b>0</b>	<b>NaN%</b>	<b>3</b>	<b>100.00%</b>	<b>0</b>	<b>NaN%</b>	<b>1</b>	<b>100.00%</b>	<b>2</b>	<b>100.00%</b>	<b>0</b>	<b>NaN%</b>	<b>0</b>	<b>NaN%</b>
CAUSE-(WHY)-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- reason	0	NaN	2	66.7	3	100	0	NaN	2	100	0	NaN	0	NaN
- purpose	0	NaN	0	0	0	0	0	NaN	0	0	0	NaN	0	NaN
- behalf	0	NaN	1	33.3	0	0	0	NaN	0	0	0	NaN	0	NaN
<b>TOTAL:</b>	<b>0</b>	<b>NaN%</b>	<b>3</b>	<b>100.00%</b>	<b>3</b>	<b>100.00%</b>	<b>0</b>	<b>NaN%</b>	<b>2</b>	<b>100.00%</b>	<b>0</b>	<b>NaN%</b>	<b>0</b>	<b>NaN%</b>

Appendix O

Interpersonal Meanings for Each Text

INTERPERSONAL-MEANINGS	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- tenor	25	100	137	100	277	100	141	100	77	100	90	100	83	100
<b>TOTAL:</b>	<b>25</b>	<b>100.00%</b>	<b>137</b>	<b>100.00%</b>	<b>277</b>	<b>100.00%</b>	<b>141</b>	<b>100.00%</b>	<b>77</b>	<b>100.00%</b>	<b>90</b>	<b>100.00%</b>	<b>83</b>	<b>100.00%</b>
TENOR	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- mood	25	100	59	43.1	169	61	77	54.6	50	64.9	69	76.7	49	59
- modality	0	0	34	24.8	42	15.2	25	17.7	21	27.3	15	16.7	16	19.3
- personal-references	0	0	44	32.1	66	23.8	39	27.7	6	7.8	6	6.7	18	21.7
<b>TOTAL:</b>	<b>25</b>	<b>100.00%</b>	<b>137</b>	<b>100.00%</b>	<b>277</b>	<b>100.00%</b>	<b>141</b>	<b>100.00%</b>	<b>77</b>	<b>100.00%</b>	<b>90</b>	<b>100.00%</b>	<b>83</b>	<b>100.00%</b>
MOOD-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- indicative	25	100	59	100	155	91.7	77	100	38	76	66	95.7	45	91.8
- imperative	0	0	0	0	14	8.3	0	0	12	24	3	4.3	4	8.2
<b>TOTAL:</b>	<b>25</b>	<b>100.00%</b>	<b>59</b>	<b>100.00%</b>	<b>169</b>	<b>100.00%</b>	<b>77</b>	<b>100.00%</b>	<b>50</b>	<b>100.00%</b>	<b>69</b>	<b>100.00%</b>	<b>49</b>	<b>100.00%</b>
INDICATIVE-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- declarative	1	4	41	69.5	123	79.4	54	70.1	23	60.5	17	25.8	24	53.3
- interrogative	24	96	18	30.5	32	20.6	23	29.9	15	39.5	49	74.2	21	46.7
<b>TOTAL:</b>	<b>25</b>	<b>100.00%</b>	<b>59</b>	<b>100.00%</b>	<b>155</b>	<b>100.00%</b>	<b>77</b>	<b>100.00%</b>	<b>38</b>	<b>100.00%</b>	<b>66</b>	<b>100.00%</b>	<b>45</b>	<b>100.00%</b>
INTERROGATIVE-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- yes-no-questions	0	0	6	33.3	11	34.4	5	21.7	3	20	2	4.1	3	14.3
- wh-questions	0	0	7	38.9	16	50	16	69.6	3	20	9	18.4	6	28.6
- not-full-question	24	100	5	27.8	5	15.6	2	8.7	9	60	38	77.6	12	57.1
<b>TOTAL:</b>	<b>24</b>	<b>100.00%</b>	<b>18</b>	<b>100.00%</b>	<b>32</b>	<b>100.00%</b>	<b>23</b>	<b>100.00%</b>	<b>15</b>	<b>100.00%</b>	<b>49</b>	<b>100.00%</b>	<b>21</b>	<b>100.00%</b>
IMPERATIVE-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- inclusive-(let's)	0	NaN	0	NaN	4	28.6	0	NaN	0	0	0	0	1	25
- exclusive	0	NaN	0	NaN	10	71.4	0	NaN	12	100	3	100	3	75
<b>TOTAL:</b>	<b>0</b>	<b>NaN%</b>	<b>0</b>	<b>NaN%</b>	<b>14</b>	<b>100.00%</b>	<b>0</b>	<b>NaN%</b>	<b>12</b>	<b>100.00%</b>	<b>3</b>	<b>100.00%</b>	<b>4</b>	<b>100.00%</b>
MODALITY-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- modalization	0	NaN	16	47.1	15	35.7	16	64	4	19	5	33.3	7	43.8
- modulation	0	NaN	18	52.9	27	64.3	9	36	17	81	10	66.7	9	56.3
<b>TOTAL:</b>	<b>0</b>	<b>NaN%</b>	<b>34</b>	<b>100.00%</b>	<b>42</b>	<b>100.00%</b>	<b>25</b>	<b>100.00%</b>	<b>21</b>	<b>100.00%</b>	<b>15</b>	<b>100.00%</b>	<b>16</b>	<b>100.00%</b>
MODALIZATION-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- probability	0	NaN	8	50	12	80	12	75	1	25	2	40	7	100
- usuality	0	NaN	8	50	3	20	4	25	3	75	3	60	0	0
<b>TOTAL:</b>	<b>0</b>	<b>NaN%</b>	<b>16</b>	<b>100.00%</b>	<b>15</b>	<b>100.00%</b>	<b>16</b>	<b>100.00%</b>	<b>4</b>	<b>100.00%</b>	<b>5</b>	<b>100.00%</b>	<b>7</b>	<b>100.00%</b>

# EMPATHY IN WRITTEN FEEDBACK TO GRADUATE STUDENTS

MODULATION-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- obligation	0	NaN	14	77.8	23	85.2	4	44.4	16	94.1	6	60	6	66.7
- inclination	0	NaN	4	22.2	4	14.8	5	55.6	1	5.9	4	40	3	33.3
<b>TOTAL:</b>	<b>0</b>	<b>NaN%</b>	<b>18</b>	<b>100.00%</b>	<b>27</b>	<b>100.00%</b>	<b>9</b>	<b>100.00%</b>	<b>17</b>	<b>100.00%</b>	<b>10</b>	<b>100.00%</b>	<b>9</b>	<b>100.00%</b>
PERSONAL-REFERENCES-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- personal-pronouns	0	NaN	44	100	61	92.4	32	82.1	6	100	6	100	18	100
- vocatives	0	NaN	0	0	5	7.6	7	17.9	0	0	0	0	0	0
<b>TOTAL:</b>	<b>0</b>	<b>NaN%</b>	<b>44</b>	<b>100.00%</b>	<b>66</b>	<b>100.00%</b>	<b>39</b>	<b>100.00%</b>	<b>6</b>	<b>100.00%</b>	<b>6</b>	<b>100.00%</b>	<b>18</b>	<b>100.00%</b>
VOCATIVES-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- second-person	0	NaN	0	NaN	5	100	0	0	0	NaN	0	NaN	0	NaN
- third-person	0	NaN	0	NaN	0	0	7	100	0	NaN	0	NaN	0	NaN
- common-name	0	NaN	0	NaN	0	0	0	0	0	NaN	0	NaN	0	NaN
<b>TOTAL:</b>	<b>0</b>	<b>NaN%</b>	<b>0</b>	<b>NaN%</b>	<b>5</b>	<b>100.00%</b>	<b>7</b>	<b>100.00%</b>	<b>0</b>	<b>NaN%</b>	<b>0</b>	<b>NaN%</b>	<b>0</b>	<b>NaN%</b>

Appendix P

Appraisal Meanings for Each Text

APPRAISAL-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- graduation	17	27.9	28	36.4	114	41	34	30.6	45	30.4	48	32.4	28	26.9
- attitude	19	31.1	23	29.9	80	28.8	38	34.2	62	41.9	47	31.8	39	37.5
- engagement	25	41	26	33.8	84	30.2	39	35.1	41	27.7	53	35.8	37	35.6
<b>TOTAL:</b>	<b>61</b>	<b>100.00%</b>	<b>77</b>	<b>100.00%</b>	<b>278</b>	<b>100.00%</b>	<b>111</b>	<b>100.00%</b>	<b>148</b>	<b>100.00%</b>	<b>148</b>	<b>100.00%</b>	<b>104</b>	<b>100.00%</b>
GRADUATION-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- force	3	17.6	19	67.9	70	61.4	7	20.6	32	71.1	31	64.6	14	50
- focus	14	82.4	9	32.1	44	38.6	27	79.4	13	28.9	17	35.4	14	50
<b>TOTAL:</b>	<b>17</b>	<b>100.00%</b>	<b>28</b>	<b>100.00%</b>	<b>114</b>	<b>100.00%</b>	<b>34</b>	<b>100.00%</b>	<b>45</b>	<b>100.00%</b>	<b>48</b>	<b>100.00%</b>	<b>28</b>	<b>100.00%</b>
FORCE-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- negative-force	2	66.7	4	21.1	23	32.9	6	85.7	24	75	27	87.1	6	42.9
- positive-force	1	33.3	15	78.9	47	67.1	1	14.3	8	25	4	12.9	8	57.1
<b>TOTAL:</b>	<b>3</b>	<b>100.00%</b>	<b>19</b>	<b>100.00%</b>	<b>70</b>	<b>100.00%</b>	<b>7</b>	<b>100.00%</b>	<b>32</b>	<b>100.00%</b>	<b>31</b>	<b>100.00%</b>	<b>14</b>	<b>100.00%</b>
FOCUS-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- positive-focus	0	0	5	55.6	19	43.2	1	3.7	2	15.4	6	35.3	7	50
- negative-focus	14	100	4	44.4	25	56.8	26	96.3	11	84.6	11	64.7	7	50
<b>TOTAL:</b>	<b>14</b>	<b>100.00%</b>	<b>9</b>	<b>100.00%</b>	<b>44</b>	<b>100.00%</b>	<b>27</b>	<b>100.00%</b>	<b>13</b>	<b>100.00%</b>	<b>17</b>	<b>100.00%</b>	<b>14</b>	<b>100.00%</b>
ATTITUDE-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- judgement	0	0	1	4.3	10	12.5	10	26.3	14	22.6	3	6.4	5	12.8
- appreciation	19	100	14	60.9	49	61.3	22	57.9	40	64.5	38	80.9	29	74.4
- emotion-(affect)	0	0	8	34.8	21	26.3	6	15.8	8	12.9	6	12.8	5	12.8
<b>TOTAL:</b>	<b>19</b>	<b>100.00%</b>	<b>23</b>	<b>100.00%</b>	<b>80</b>	<b>100.00%</b>	<b>38</b>	<b>100.00%</b>	<b>62</b>	<b>100.00%</b>	<b>47</b>	<b>100.00%</b>	<b>39</b>	<b>100.00%</b>
JUDGEMENT-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- positive-judgement	0	NaN	1	100	8	80	2	20	0	0	0	0	4	80
- negative-judgement	0	NaN	0	0	2	20	8	80	14	100	3	100	1	20
<b>TOTAL:</b>	<b>0</b>	<b>NaN%</b>	<b>1</b>	<b>100.00%</b>	<b>10</b>	<b>100.00%</b>	<b>10</b>	<b>100.00%</b>	<b>14</b>	<b>100.00%</b>	<b>3</b>	<b>100.00%</b>	<b>5</b>	<b>100.00%</b>
APPRECIATION-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- positive	0	0	3	21.4	20	40.8	7	31.8	9	22.5	1	2.6	12	41.4
- negative	19	100	11	78.6	29	59.2	15	68.2	31	77.5	37	97.4	17	58.6
<b>TOTAL:</b>	<b>19</b>	<b>100.00%</b>	<b>14</b>	<b>100.00%</b>	<b>49</b>	<b>100.00%</b>	<b>22</b>	<b>100.00%</b>	<b>40</b>	<b>100.00%</b>	<b>38</b>	<b>100.00%</b>	<b>29</b>	<b>100.00%</b>
EMOTION-(AFFECT)-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- positive-emotion	0	NaN	4	50	11	52.4	5	83.3	3	37.5	6	100	2	40
- negative-emotion	0	NaN	4	50	10	47.6	1	16.7	5	62.5	0	0	3	60
<b>TOTAL:</b>	<b>0</b>	<b>NaN%</b>	<b>8</b>	<b>100.00%</b>	<b>21</b>	<b>100.00%</b>	<b>6</b>	<b>100.00%</b>	<b>8</b>	<b>100.00%</b>	<b>6</b>	<b>100.00%</b>	<b>5</b>	<b>100.00%</b>
ENGAGEMENT-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- disclaim	23	92	4	15.4	18	21.4	5	12.8	30	73.2	33	62.3	11	29.7
- proclamation	1	4	5	19.2	44	52.4	9	23.1	7	17.1	4	7.5	14	37.8
- entertainment	1	4	12	46.2	12	14.3	20	51.3	4	9.8	15	28.3	12	32.4
- attribution	0	0	5	19.2	10	11.9	5	12.8	0	0	1	1.9	0	0
<b>TOTAL:</b>	<b>25</b>	<b>100.00%</b>	<b>26</b>	<b>100.00%</b>	<b>84</b>	<b>100.00%</b>	<b>39</b>	<b>100.00%</b>	<b>41</b>	<b>100.00%</b>	<b>53</b>	<b>100.00%</b>	<b>37</b>	<b>100.00%</b>

Appendix Q

Textual Meanings for Each Text

TEXTUAL-MEANINGS	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- textual-themes	0	0	79	27.5	234	29.7	132	24.1	50	22	91	28.5	49	22.1
- lexical-density	10	18.5	159	55.4	406	51.5	316	57.7	119	52.4	130	40.8	126	56.8
- textual-adjuncts	0	0	17	5.9	47	6	50	9.1	7	3.1	14	4.4	12	5.4
- cohesion	25	46.3	24	8.4	85	10.8	37	6.8	44	19.4	57	17.9	34	15.3
- emphasis	19	35.2	8	2.8	16	2	13	2.4	7	3.1	27	8.5	1	0.5
<b>TOTAL:</b>	<b>54</b>	<b>100.00%</b>	<b>287</b>	<b>100.00%</b>	<b>788</b>	<b>100.00%</b>	<b>548</b>	<b>100.00%</b>	<b>227</b>	<b>100.00%</b>	<b>319</b>	<b>100.00%</b>	<b>222</b>	<b>100.00%</b>
THEMES-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- topical-theme	0	NaN	47	59.5	138	59	69	52.3	36	72	51	56	28	57.1
- interpersonal-theme	0	NaN	8	10.1	40	17.1	19	14.4	9	18	35	38.5	10	20.4
- textual-theme	0	NaN	24	30.4	56	23.9	44	33.3	5	10	5	5.5	11	22.4
<b>TOTAL:</b>	<b>0</b>	<b>NaN%</b>	<b>79</b>	<b>100.00%</b>	<b>234</b>	<b>100.00%</b>	<b>132</b>	<b>100.00%</b>	<b>50</b>	<b>100.00%</b>	<b>91</b>	<b>100.00%</b>	<b>49</b>	<b>100.00%</b>
LEXICAL-DENSITY	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- nouns	6	60	80	50.3	182	44.8	178	56.3	56	47.1	73	56.2	68	54
- verbs	3	30	46	28.9	110	27.1	64	20.3	27	22.7	36	27.7	32	25.4
- adjectives	1	10	27	17	81	20	57	18	32	26.9	14	10.8	18	14.3
- adverbs	0	0	6	3.8	33	8.1	17	5.4	4	3.4	7	5.4	8	6.3
<b>TOTAL:</b>	<b>10</b>	<b>100.00%</b>	<b>159</b>	<b>100.00%</b>	<b>406</b>	<b>100.00%</b>	<b>316</b>	<b>100.00%</b>	<b>119</b>	<b>100.00%</b>	<b>130</b>	<b>100.00%</b>	<b>126</b>	<b>100.00%</b>
TEXTUAL-ADJUNCTS-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- continuity	0	NaN	0	0	6	12.8	0	0	0	0	0	0	0	0
- conjunction	0	NaN	8	47.1	29	61.7	40	80	2	28.6	11	78.6	4	33.3
- structural	0	NaN	9	52.9	12	25.5	10	20	5	71.4	3	21.4	8	66.7
<b>TOTAL:</b>	<b>0</b>	<b>NaN%</b>	<b>17</b>	<b>100.00%</b>	<b>47</b>	<b>100.00%</b>	<b>50</b>	<b>100.00%</b>	<b>7</b>	<b>100.00%</b>	<b>14</b>	<b>100.00%</b>	<b>12</b>	<b>100.00%</b>
COHESION-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- yes-cohesion	7	28	21	87.5	67	78.8	28	75.7	16	36.4	40	70.2	19	55.9
- no-cohesion	18	72	3	12.5	18	21.2	9	24.3	28	63.6	17	29.8	15	44.1
<b>TOTAL:</b>	<b>25</b>	<b>100.00%</b>	<b>24</b>	<b>100.00%</b>	<b>85</b>	<b>100.00%</b>	<b>37</b>	<b>100.00%</b>	<b>44</b>	<b>100.00%</b>	<b>57</b>	<b>100.00%</b>	<b>34</b>	<b>100.00%</b>
EMPHASIS-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- markedness	0	0	5	62.5	8	50	11	84.6	2	28.6	7	25.9	1	100
- repetition	3	15.8	0	0	4	25	0	0	4	57.1	14	51.9	0	0
- use-of-cleft	0	0	2	25	0	0	0	0	0	0	0	0	0	0
- highlighting	10	52.6	1	12.5	0	0	0	0	1	14.3	4	14.8	0	0
- circles	2	10.5	0	0	0	0	0	0	0	0	1	3.7	0	0
- arrows	2	10.5	0	0	0	0	0	0	0	0	0	0	0	0
- deleted-words	2	10.5	0	0	0	0	0	0	0	0	0	0	0	0
- capital-letters	0	0	0	0	4	25	0	0	0	0	1	3.7	0	0
- not-only-...but-also	0	0	0	0	0	0	2	15.4	0	0	0	0	0	0
<b>TOTAL:</b>	<b>19</b>	<b>100.00%</b>	<b>8</b>	<b>100.00%</b>	<b>16</b>	<b>100.00%</b>	<b>13</b>	<b>100.00%</b>	<b>7</b>	<b>100.00%</b>	<b>27</b>	<b>100.00%</b>	<b>1</b>	<b>100.00%</b>

Appendix R

Clauses for Each Text

CLAUSE-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- ranking-clause	4	100	44	57.9	125	51.9	66	53.2	39	68.4	37	68.5	33	56.9
- taxis	0	0	16	21.1	58	24.1	29	23.4	9	15.8	9	16.7	12	20.7
- logico-semantic	0	0	16	21.1	58	24.1	29	23.4	9	15.8	8	14.8	13	22.4
<b>TOTAL:</b>	<b>4</b>	<b>100.00%</b>	<b>76</b>	<b>100.00%</b>	<b>241</b>	<b>100.00%</b>	<b>124</b>	<b>100.00%</b>	<b>57</b>	<b>100.00%</b>	<b>54</b>	<b>100.00%</b>	<b>58</b>	<b>100.00%</b>
TAXIS-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- parataxis	0	NaN	5	31.3	24	41.4	7	24.1	3	33.3	1	11.1	2	16.7
- hypotaxis	0	NaN	11	68.8	34	58.6	22	75.9	6	66.7	8	88.9	10	83.3
<b>TOTAL:</b>	<b>0</b>	<b>NaN%</b>	<b>16</b>	<b>100.00%</b>	<b>58</b>	<b>100.00%</b>	<b>29</b>	<b>100.00%</b>	<b>9</b>	<b>100.00%</b>	<b>9</b>	<b>100.00%</b>	<b>12</b>	<b>100.00%</b>
LOGICO-SEMANTIC-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- projection	0	NaN	3	18.8	8	13.8	7	24.1	0	0	1	12.5	0	0
- expansion	0	NaN	13	81.3	50	86.2	22	75.9	9	100	7	87.5	13	100
<b>TOTAL:</b>	<b>0</b>	<b>NaN%</b>	<b>16</b>	<b>100.00%</b>	<b>58</b>	<b>100.00%</b>	<b>29</b>	<b>100.00%</b>	<b>9</b>	<b>100.00%</b>	<b>8</b>	<b>100.00%</b>	<b>13</b>	<b>100.00%</b>
PROJECTION-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- idea	0	NaN	3	100	4	50	7	100	0	NaN	1	100	0	NaN
- locution	0	NaN	0	0	4	50	0	0	0	NaN	0	0	0	NaN
<b>TOTAL:</b>	<b>0</b>	<b>NaN%</b>	<b>3</b>	<b>100.00%</b>	<b>8</b>	<b>100.00%</b>	<b>7</b>	<b>100.00%</b>	<b>0</b>	<b>NaN%</b>	<b>1</b>	<b>100.00%</b>	<b>0</b>	<b>NaN%</b>
EXPANSION-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- elaborating-(in-other-words)	0	NaN	0	0	6	12	2	9.1	1	11.1	3	42.9	0	0
- extending-(adding-variation)	0	NaN	3	23.1	16	32	5	22.7	2	22.2	1	14.3	2	15.4
- enhancing-(circumstances)	0	NaN	10	76.9	28	56	15	68.2	6	66.7	3	42.9	11	84.6
<b>TOTAL:</b>	<b>0</b>	<b>NaN%</b>	<b>13</b>	<b>100.00%</b>	<b>50</b>	<b>100.00%</b>	<b>22</b>	<b>100.00%</b>	<b>9</b>	<b>100.00%</b>	<b>7</b>	<b>100.00%</b>	<b>13</b>	<b>100.00%</b>

Appendix S

Empathy for Each Text

EMPATHY-TYPE	Text 1		Text 2		Text 3		Text 4		Text 5		Text 6		Text 7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
- no-empathy	17	68	2	8.7	1	1.2	2	5.3	16	35.6	32	51.6	14	34.1
- cognitive-empathy	8	32	12	52.2	28	33.7	29	76.3	21	46.7	26	41.9	14	34.1
- affective-empathy	0	0	1	4.3	14	16.9	1	2.6	7	15.6	1	1.6	6	14.6
- cognitive-and-affective-empathy	0	0	2	8.7	11	13.3	4	10.5	1	2.2	2	3.2	4	9.8
- compassionate-empathy	0	0	6	26.1	29	34.9	2	5.3	0	0	1	1.6	3	7.3
<b>TOTAL:</b>	<b>25</b>	<b>100.00%</b>	<b>23</b>	<b>100.00%</b>	<b>83</b>	<b>100.00%</b>	<b>38</b>	<b>100.00%</b>	<b>45</b>	<b>100.00%</b>	<b>62</b>	<b>100.00%</b>	<b>41</b>	<b>100.00%</b>

Appendix T

Adapted from Hasan's Cline of Dynamism (1985, p. 46)

DYNAMIC		
1	(Actor + Animate Goal)	<u>John</u> took Harry to London
2	(Actor + Inanimate Goal)	<u>John</u> took the books with him
3	(Sayer + Recipient)	<u>John</u> told Harry . . .
4	(Sayer + Target)	<u>John</u> praised the system
5	(Sayer)	<u>John</u> talked
6	(Phenomenon + Senser)	<u>John</u> /the <u>picture</u> attracted her
7	(Senser)	<u>John</u> recognised the house <u>Mary</u> was attracted by it/him
8	(Actor - Goal)	<u>John</u> went away
9	(Behaver)	<u>John</u> woke up
10	(Carrier)	<u>John</u> was sleepy
11	(Goal/Target. . .)	<u>John</u> took <u>Harry</u> with him.
12	(Range)	I watched <u>the house</u>
13	(Circumstance/. . .)	I have a <u>sister</u>
PASSIVE		

Appendix U

138 Examples from the Coder of Feedback that could Reflect Cognitive Empathy

---

**With or without the use of technology?**

**Has not been defined?**

**Has not been defined?**

**Has not been defined?**

**hidden assumption?**

**Definitions.**

**Deleted word.**

**Deleted word.**

**Women academics have?**

**Will you be analyzing policy documents, speeches, news releases?**

**I'm not sure that you need hopefully here.**

**Will you be approaching academics in a diversity of disciplines?**

**This is impossible.**

**We can only read and work in the world of learning through our own subjectivity.**

**You could perhaps signpost this earlier for the reader.**

**Maybe another word here besides "puts" perhaps "notes".**

**It is through the linguistic analysis that you are able to make sense of the  
sociocultural....true?**

**Maybe I am not following you here, but in my own work I look at how language performs  
these ideas.**

---

---

**With or without the use of technology?**

---

**Is this because of sensitivity or is it a matter of trust.**

**Is it worth adding in disciplines here?**

**Which country?**

**I mean, I know.**

**Who authored this report?**

**Oooh...we don't deal in facts in education.**

**Is the Widman study about adolescents?**

**Which strategies?**

**This is still quite a vague definition.**

**Does the literature review explain?**

**Or is the literature review the section in which YOU explain...?**

**In English, and according to APA style, sentences shouldn't start with numbers.**

**Not sure this is the right description for the definition.**

**Ah - okay - so entertainment is part of your definition.**

**Give us one more sentence here to explain what this means, or what we might take away from this study that is relevant to your study.**

**Does this mean that games might be an important context for learning for more than 75% of students?**

**Because?**

**(Highlighting five paragraphs or 43 lines, then writes)**

**This feels way too repetitive.**

**this question is just not clear for me.**

---

---

**With or without the use of technology?**

---

**This is a third question.**

**So, is it three key theoretical concepts?**

**How do pragmatists claim to know Again, not entirely clear for me.**

**And how is this pragmatism?**

**This research is also timely.**

**Considering the rising....**

**Is this the purpose of the study?**

**Ah - so they didn't publish the full version?**

**Is this relevant?**

**Why do you need to collect this data?**

**One area that is perhaps beyond the scope of this thesis in terms of relevant literature might have been to examine research on educational leadership.**

**For example, on the continuum of different forms of leadership in relation to educational contexts.**

**For example, transformative leadership versus authoritative.**

**As a reader I wondered how rereading Emily's findings in relation to that body of scholarship might provide her opportunities to extend the synthesis and implications put forth in the concluding chapter for example**

**Something to consider in relation to her future research.**

**what were the different lines of evidence that she drew on to inform her analysis and synthesis.**

**In this section, it would be helpful for future readers to know those defined parameters**

---

---

**With or without the use of technology?**

---

**(documents, websites, online articles, news articles, interviews, and so on).**

**How might she come back to those emergent themes a little more purposefully in concluding chapter in relation to future implications and contributions toward the gaps she pointed out exist in policy studies literature and/or in this specific policy implementation.**

**How might she trouble or temper that in introduction and concluding sections of the thesis.**

**For example, are BMI metrics the key indicator in terms of comprehensive health of children and youth as they transition through schools toward becoming adults here in Ontario.**

**What are the dangers of deferring corporate responsibilities onto school communities?**

**.. the era and historical context for Ontario, politics of the day, government and so on are not set up...What are we doing or not doing today?**

**Could intro start here and now and then work its way back to how this policy was put in place.**

**"Namely the impacts of corporate farming, food supply chain, and respective extractive economic profits on our overall mental health and well-being.**

**How might we trouble where celebrity chefs are on the continuum of privilege in terms of their access to "healthy meals" as another corporate food network?**

**Are we consuming ourselves not only in terms of a BMI index, but also in terms of impact it has for the more-than-human world, and earth's climate?**

**And that several families take their children to those chains which in turn creates an acculturation to high sodium and fatty diets.**

**So, there are societal and cultural dimensions to these geographical enclaves.**

---

---

**With or without the use of technology?**

---

**I wondered how Emily might extend her analysis in terms of those societal and cultural dimensions.**

**Not only do those corporate chains provide food, but also economic employment to the adolescents that they seek to serve.**

**Often those sites in turn become social and community networking sites for adolescents (visiting a friend who is working).**

**As a reader, fellow scholar, parent, and Ontario citizen, these kinds of added complexities were somewhat missing from the analysis.**

**If adolescents do not want to be "trapped" within the walls of a school, 1) how can we create a wider ecosystem that seeks to sustain their livelihood, and comprehensive health, beyond punitive measure (needing a pass to leave the school grounds).**

**2) What happens when the school is seen as a hub for the wider community as opposed to a juvenile detention centre?**

**How do we address the tension of such sites providing employment for the adolescents while at the same time teaching about their negative impacts?**

**Wondering if Emily has come across any scholarship within cultural studies and/or youth culture on such tensions?**

**And then knowing such tensions exist, what are the implications for thinking through and/or beyond P/PM 150's implementation in Ontario?**

**There are several APA citation formatting issues.**

**Also some of the headings could be formatted differently.**

**Of course, much of the elaboration I ask for below cannot be provided given the word**

---

---

**With or without the use of technology?**

**count restraints for the comps.**

**However, I would like to see this elaboration in the final thesis.**

**Pretty general statement that needs elaboration and justification.**

**Your antecedents are not always clear.**

**Avoid passive voice.**

**Don't be afraid to use "I" statements.**

**Double-check APA heading formats.**

**can you rewrite this last paragraph so that it flows better?**

**be clear about which criticism you are referring to**

**who exactly makes the claims within this a paragraph.**

**that is but one definition of the purpose of education; there are many others.**

**original publication date?**

**Of course, these scholars should be discussed in greater depth in the actual thesis Why scientific?**

**Is this term appropriate in reference to human subjects?**

**citation for Foucault?**

**city of publication?**

**Clear this citation up.**

**Is this the correct APA format?**

**Best to find a shorter url.**

**Put in proper APOA format.**

**Double-check APA rules regarding capitalisation in reference lists.**

---

---

With or without the use of technology?

---

Example

Example

please, clarify.

please, clarify.

how does this conclusion speak to your study?

if learning of math is to be questioned, how to expect test results to be challenged.

Both seem to be tied together.

Example

Example

please, clarify how it is not?

example?

how are these "gendered dichotomies"?

the content of this section appears to contradict this statement like: critical mathematics education, ethno-mathematics, and gender and race research?

these terms are introduced here in the proposal.

this can come in earlier in the proposal.

why not just "different relations"

Example

isn't this freedom

Example

Within any society, culture, or discipline, there are mechanisms, rules, norms, tools, techniques, and procedures with which we produce, judge, and accept and ACT UPON

---

---

**With or without the use of technology?**

**mathematical truths.(**

**This combines both categories).**

**example?**

**this sentence encompasses all three features of math.**

**this idea is introduced here for the first time.**

**this seems to have been established.**

**not discussed in this proposal.**

**just minor grammar things and typos below**

**How will you help move children towards sustainability ideas?**

**But how will it affect your data analysis/ interpretation?**

**Eg. in some parts, treat knowing as possession of children.**

**I don't agree with some of the punctuation in this paragraph,**

**Vague phrase.**

**49 words.**

**Should be in its own indented paragraph.**

**48 words**

**40 words**

**Not an independent clause, so semi-colon not appropriate ?**

**How negotiate this version of knowing [in children] vs socio-material relations?**

**Addressed below.**

**I bet sports team shirt will be among them.**

---

Appendix V

30 Examples from the Coder of Feedback that could Reflect Affective Empathy

---

**From what we know about the significance of learning, stories, and narrative, this methodology will allow you to do this important work.**

**It's obvious to us...but not necessarily to other readers.**

**Yes!**

**This is why I have proposed the follow-up sentence.**

**You are the author of this work.**

**This is such strong logic here, Mark.**

**Excellent**

**Good job!**

**THIS shows us that you have done your reading**

**Good!**

**Okay.**

**Good point.**

**Good. Good point.**

**Mark**

**Good**

**The analysis and results were sound.**

**Good summary.**

**This is a strong section.**

**Interesting**

---

---

**From what we know about the significance of learning, stories, and narrative, this methodology will allow you to do this important work.**

**Good**

**Good**

**good survey.**

**nice conclusion.**

**ideally, all disciplines should be like that.**

**mostly good,**

**SM stuff solid.**

**but you have earned some latitude in that respect.**

**You could be right.**

**Well put**

**Good details**

---

Appendix W

24 Examples from the Coder of Feedback that could Reflect Cognitive and Affective

Empathy

---

**And this seems to go back to your own story of learning about your own life through that of others.**

**This is what makes your study particularly important as a feminist researcher.**

**Language choice here is very important because it is the first paragraph of your paper.**

**Acquiring effective negotiation and communications strategies requires practice in...**

**GOOD!**

**This will satisfy Emmanuel and it helps the reader, for sure.**

**You mention constructivism and pragmatism...and now feminism.**

**Epistemology means how we know what we know.**

**What do you mean by this?**

**In the next section, the rationale So much more clear, Mark!**

**Importantly, they have introduced end-to-end encryption.**

**So, you calculate a paired samples test.**

**Ethics can take three months.**

**It's super slow and tedious.**

**In some ways it still felt that the case study was created to confirm Emily's pre-existing assumptions.**

**Emily's study reminds us that we have yet to do enough both inside and outside the contexts of public education."**

---

---

**And this seems to go back to your own story of learning about your own life through that of others.**

**Emily reminds us that fast-food chains are often clustered around and/or near public schools.**

**Overall the writing is sound and clearly articulated.**

**Good introduction; addresses the question .**

**isn't this similar to saying that science and politics are not distinct, as you indicated in the previous sentence?**

**I wonder how much of this is also true for all other disciplines.**

**This is a good socio-material fable.**

**Yes good metaphor.**

**Let's see how it contributes to the research...**

**as your work will no doubt eventually be published**

---

Appendix X

84 Examples from the Coder of Feedback that could Reflect No Empathy

---

Difference?

Yellow Highlight.

Green Highlight.

Two circles.

Highlighted word.

An arrow.

Case study?

Green Highlight.

Subtypes?

Green Highlight.

Grey highlight.

Yellow highlight.

Green highlight.

Three circles.

Two arrows.

Yellow highlight.

Yellow highlight.

I'm not sure why one 'the sociocultural analysis' needs to be highlighted as a main interest.

pink highlight

Not sure what you mean here?

---

---

Difference?

---

Also, Emily indicates that she did a thematic analysis.

Are there any aspects of her methodology that she would now change after what she experienced creating and doing this case study research?

Awkward phrasing.

Good; just enough of the Greeks and no more.

Awkward wording.

How can a thing (CC) have agency and defend anything?

Elaborate.

It currently reads like a "shopping list".

elaborate.

awkward phrasing

define.

Elaborate.

?

awkward phrasing.

Translator?

Edited volume?

Editor?

yellow highlight

Yellow highlighting ?

? how so

who abides to this common sense?

---

---

**Difference?**

**what does that mean?**

**what does that mean?**

**how much?**

**how so?**

**in what sense?**

**two sides of the same coin?**

**how so?**

**in what sense?**

**why?**

**how so?**

**why?**

**why these three?**

**also "modernist"? what do you mean?**

**for whom?**

**why?**

**what distinction?**

**e.g. climate change?**

**different ways of "doing" math?**

**like in the case of climate change?**

**what is this?**

**how so?**

**for example, for the understanding of climate change.**

---

---

**Difference?**

**research problem?**

**so?**

**whose?**

**yellow highlights**

**brown highlights**

**green highlights**

**Circles**

**Just by awareness of textiles origin and destinations, etc?**

**Grammar**

**I don't understand the point here.**

**Grammar**

**Singular or plural?**

**Still not sure what you mean by this Should be plural?**

**how so?**

**This is research question?**

**How will this actually work?**

**Not sure how these go together I don't see any explicit questions or prompts related to sustainability there.**

**Is that something that may emerge after develop thoughtful relationship with textiles?**

**Maybe in step 2...**

**Lots of stories behind those... Just aesthetic readings?**

**Doesn't this narrow what they might link their textiles to?**

---

Appendix Y

41 Examples from the Coder of Feedback that could Reflect Compassionate Empathy

---

You may want to take a look at Elizabeth Young Bruehl's *In The Biographer's Empathy with her Subject* (1988), she speaks of how her own identifications with her research subjects, Anna Freud and Hannah Arendt, also led her on a "self-quest" that had an impact on her both privately in what she was able to explore about herself and professionally as an academic.

Throughout this research, I think you will need to address how you interpret the significance of the articulations your study evokes in relation to what you learned about my own structures of desire and conflicts of identity that emerge from your own experience.

Working from a post structuralist position, you will need to trouble this mythology of the researcher ever not being biased.

You may also want to see the intro to Leslie Bloom's *Under the Sign of Hope*, where Deborah Britzman addresses this dynamic in research.

This is very helpful and answers my earlier questions about what texts you will use for your discourse analysis.

I think it is both of course, but I wonder if it is trust that needs to be foregrounded here and how this connects with the significance of the narrative exchange as one of your research methodologies.

Better to say ...widely implemented across Canada.

If an organization, then use the name of the organization, not the name of the report itself.

Suggestion: This is a difficult relationship to understand, but it suggests that knowledge

---

---

**You may want to take a look at Elizabeth Young Bruehl's *In The Biographer's Empathy with her Subject* (1988), she speaks of how her own identifications with her research subjects, Anna Freud and Hannah Arendt, also led her on a "self-quest" that had an impact on her both privately in what she was able to explore about herself and professionally as an academic.**

---

**gained through sexual health education programs may not be sufficient to prepare teenagers for the complexities of the sexual situations in which they find themselves (Davies & Weatherburn, 2003)**

**I made a couple of suggested revisions here.**

**If not, you can revise it - but the key here is that you start talking about adolescents and the evidence you provide about what does work for adolescents is essential in this first paragraph.**

**Definitions up front.**

**Feel free to elaborate or clarify...but you need to give us a little more since this is a foundational definition.**

**Don't be afraid to use the first person.**

**You don't have to pretend otherwise or distance yourself from this when you describe what you have constructed in your proposal.**

**So, here, you need to write out Sixty-five percent.**

**These subheadings are really supportive of the reader and help us to see the sections of your argument.**

**Excellent use of citation to support each of your claims here, Mark.**

**made essential connections on which to base this research study.**

---

---

You may want to take a look at Elizabeth Young Bruehl's *In The Biographer's Empathy with her Subject* (1988), she speaks of how her own identifications with her research subjects, Anna Freud and Hannah Arendt, also led her on a "self-quest" that had an impact on her both privately in what she was able to explore about herself and professionally as an academic.

I would suggest you should say that using games beyond entertainment made the term difficult to define: games are by nature fun, and not serious.

Make sure that the definition you provide in the intro is totally aligned with these definitions.

Give us one more sentence here to explain what this means, or what we might take away from this study that is relevant to your study.

.I think a stronger criticism is actually that the data are based on self-reported intentions gathered immediately after playing the game rather than retrospective self-reports on what teenagers did or did not do during a particular post-game time frame.

Can you shorten?

And logically, this should flow from this last section on serious games...so build from the argument you have made for the design of a serious game that builds on previous work and that will focus on developing the skills most needed for effective negotiation with sexual partners.

Let's discuss.

Need to clarify.

So, explain pragmatism in light of this.

Can you clarify that Round 1, Round 2 and Round 3 are the Phase III feedback cycles?

---

---

**You may want to take a look at Elizabeth Young Bruehl's *In The Biographer's Empathy with her Subject* (1988), she speaks of how her own identifications with her research subjects, Anna Freud and Hannah Arendt, also led her on a "self-quest" that had an impact on her both privately in what she was able to explore about herself and professionally as an academic.**

**Otherwise, this looks really great.**

**Excellent rationale, here, Mark.**

**I think, given the sensitive nature of these data, it is better to just explain that Zoom data will be stored to your PW protected hard drive initially and then transferred to an encrypted hard-drive.**

**Suggestion: This project will contribute to the scholarship on the use of serious games in sexual health education.**

**In particular, the focus on design will provide new evidence of how a collaborative serious game that creates a virtual context for practicing communication and negotiation skills in sexual partnerships can be created.**

**I just think you should start with the design contribution first because that is MAJOR.**

**Concerning what are we doing or not doing today:**

**I can provide a copy with my track changes.**

**I identify three features of mathematics which make it inextricably political: the formatting function of mathematics, the rationality of mathematics, and the recognition of mathematics as an important activity.**

**If after semi-colon, then [t] Generally solid on the theory.**

**PS feel free to add any reference to my articles,**

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---

**You may want to take a look at Elizabeth Young Bruehl's *In The Biographer's Empathy with her Subject* (1988), she speaks of how her own identifications with her research subjects, Anna Freud and Hannah Arendt, also led her on a "self-quest" that had an impact on her both privately in what she was able to explore about herself and professionally as an academic.**

---

**Need page ref. for the quotation above.**

---