"I feel what you are feeling": Neural Processes for Empathy and its Impact on Academic and Holistic Achievement

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Abstract

The understanding of empathy is complex. Research suggests that there is a tripartite classification of empathy, which comprises cognitive empathy, emotional (or affective) empathy, and compassionate empathy (or empathic concern). This paper will delve into the concepts, explain the brain functions for empathy, and present emotion contagion, simulation theories and mirror neurons as central to the neuro-analysis of empathy. Notably, there has been a stark increase in studies that focus on the link between empathy and other emotional competences, like emotional literacy and holistic and academic achievement. The paper will present this collection of studies and will discuss the concept of positive schooling, positive classroom setting and positive pedagogy, where students experience empathy and emotional health, and where they can flourish more in life and at their school. Finally, it will present possibilities for practice where empathy can be enhanced in the classroom setting.

Keywords

Cognitive Empathy, Emotional Empathy, Compassionate Empathy, Mirror Neurons, Emotion Contagion, Holistic and Academic Achievement

Introduction

"Empathy plays a critical interpersonal and societal role, enabling sharing of experiences, needs, and desires between individuals and providing an emotional bridge that promotes pro-social behaviour" (Riess, 2017, p. 74). Empathy is a broad (Shamay-Tsoory, 2011) and complex phenomenon (Lamm & Majdandžić, 2015. Even though the term was coined over one hundred years

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ago (Cuff et al., 2016), authors have given it different interpretations and thus this in itself (Decety & Jackson, 2004) creates problems in the determination of what is actually being studied and difficulty in the comparison of studies about empathy. The origins of empathy date back to the 1880s when Theodore Lipps came up with the term "Einfühlung" (meaning "attunement") to explain the "emotional appreciation of another's feelings" (Ioannidou & Konstantikaki, 2008, p. 118). In this paper, empathy is defined as "the capacity to share and understand another's 'state of mind' or emotion. It is often characterised as the ability to 'put oneself into another's shoes', or in some way experience the outlook or emotions of another being within oneself" (Ioannidou & Konstantikaki, 2008, p. 118).

Literature suggests that there is a positive relationship between empathy and academic as well as holistic achievement (Bakar et al., 2014; Cobo-Rendón et al., 2020; Cooper, 2010; Durlak et al., 2011; Feshbach & Feshbach, 1987; Grigoropoulos, 2019; Ishak et al., 2014). Empathy is also positively correlated with executive functions like leadership skills (Bakar et al., 2014) and other social skills like communication, teamwork, conflict management and leadership (Ishak et al., 2014).

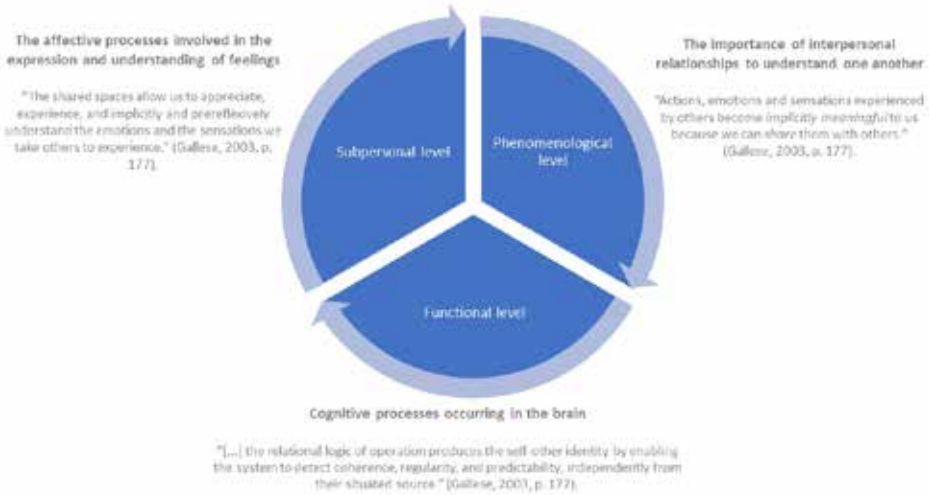
In the Maltese context, we are heading towards a more person-centred education system (Ministry of Education and Employment, 2012; Ministry for Education and Employment, 2014a, 2014b). Locally, in Malta, we are speaking more about holistic achievement, but we rarely speak about empathy, except during a specific school subject named PSCD (Personal, Social and Career Development). This was an inspiration for the focus of this paper, with the hope of raising more awareness about the power of empathy in our classroom settings. The paper will attempt to explain the neural basis for empathy and the components that are central to the cognitive and emotional empathy. A third type of empathy will also be introduced. This is compassionate empathy. The paper will then focus on the contribution and the importance of empathy to academic and holistic achievement, as well as to the well-being of the individual. In this context, the concept of positive schooling will be analysed. Finally, this paper will highlight how positive schooling can be taken up by educators in the classroom to improve engagement and achievement. It will also present suggestions to policymakers to effectively include empathy in curriculum development.

Defining empathy – the psychological framework of empathy

Gallese (2003) presented empathy as having three levels. Level 1 is the phenomenological or the empathic level which is about similarity where everyone is part of a community. "Actions, emotions and sensations experienced by others become meaningful to us because we can share them with them" (Gallese, 2001, p. 45). This refers to the sharing of common experiences, and hence the importance of interpersonal relationships to understand each other. Level 2 is the functional level which is about simulation routines that reflect the cognitive processes occurring in the brain during empathy. Level 3 is the subpersonal level which is the result of mirror matching neural circuits. There is a dual mode of operation comprising the expressive mode and the receptive mode that characterises these circuits, hence there is the sender of the message who would be expressing oneself and the receiver of the message who would be understanding it. This refers to the affective processes through which there is the expression and the understanding of feelings. Taking account of this, Gallese (2001, 2003) developed his hypothesis of shared manifold intersubjectivity (Figure 1).

Figure 1

Shared Manifold Intersubjectivity



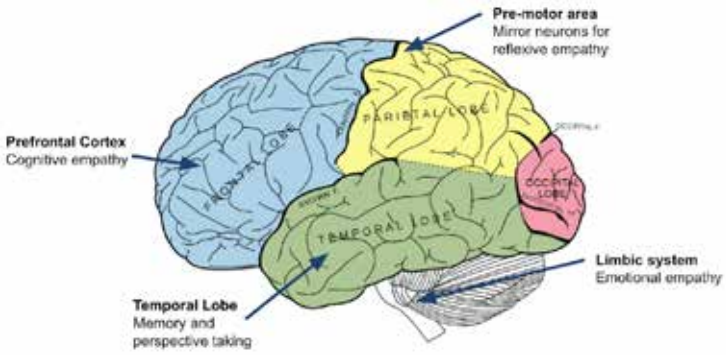
Source: Adapted from Gallese, 2003

Neural connections for empathy

Hein and Singer (2008), Shamay-Tsoory (2011), and Di Girolamo et al. (2019) explained that empathy has two components. Cognitive empathy is the understanding of the perspective of the other, whilst emotional empathy refers to the sensation of another's feelings and the sharing of emotional experience (Baron-Cohen & Wheelwright, 2004). As illustrated in Figure 2, for cognitive empathy, the ventromedial prefrontal cortex, temporoparietal junction and the medial temporal lobe are necessary (Shamay-Tsoory, 2011). The ventromedial prefrontal cortex is part of the prefrontal cortex and is involved in emotion and emotion regulation (Baars & Gage, 2013) and cognition, whereas the medial temporal lobe includes structures necessary for both cognitive and emotional tasks (Mulders et al., 2019). Baron-Cohen and Wheelwright (2004) stated that evidence from neuroimaging and lesion studies indicate that for emotional empathy, there should be a neural network that involves the inferior frontal gyrus and the inferior parietal lobe in the brain (Figure 2). The latter is a key neural substrate that underlies mental processes like attention, as well as language and social cognition (Numssen et al., 2021). The inferior parietal lobe is a heteromodal convergence zone of various brain networks that is central to realising key cognitive operations across different levels of the neural processing hierarchy (Kernbach et al., 2018; Seghier, 2013). The inferior frontal gyrus is central for the comprehension and production of language (Ishkhanyan et al., 2020).

Figure 2

The Function of the Brain for Cognitive and Affective Empathy



Source: Riley, 2021, p. 1

Simulation theories and the discovery of mirror neurons contribute to our understanding of how these neural connections form the basis of intersubjectivity and empathy. Di Pellegrino et al. (1992), Gallese (2003, 2007) and Rizzolatti et al. (2009) explained that mirror neurons were found in the ventral premotor cortex of monkeys and discharged when monkeys executed an action, as well as when they observed another monkey performing that action. Lamm and Majdandžić (2015) further found evidence that shows that "similar neural structures are activated when empathising with someone and when directly experiencing the emotion one is empathising with" (p. 17). This makes sense when discussing empathy, imitation and emotion contagion (Shamay–Tsoory, 2011). Even though different authors have stated that these neurons are the reason why individuals empathise, they have also said that there is a lack of direct empirical support (Lamm & Majdandžić, 2015; Redshaw, 2019; Davis et al., 2021).

The neural basis for cognitive and emotional empathy is, therefore, related both to an individual's self-awareness of their emotions and to interpersonal relationships. It is, thus, not surprising that Beadle et al. (2018) reported that neurological patients who have prefrontal cortex damage display less empathy towards other individuals.

After presenting the neural structures and the hypotheses for their interplay that are involved during cognitive and emotional empathy, a more in-depth explanation of the types of empathy will be presented.

Cognitive empathy

Cognitive empathy is the ability to understand the feelings of others through the use of a range of cues that comprise the visual, auditory and situational (Di Girolamo et al., 2019). It is "the perception and (accurate) identification of others' feeling states" (Powell & Roberts, 2017, p. 138). Lawrence et al. (2004) and Shamay–Tsoory (2011) considered cognitive empathy to be close to the Theory of Mind. This is an important social–cognitive skill where individuals are able to understand the mental states of others (Hopper, 2019). In this context, "others' behaviour can be explained by their mental state" (Frith & Frith, 2003, in Di Girolamo, 2019, p. 160). The Theory of Mind includes the ability to reason about the beliefs, thoughts and emotions of others so as to predict behavioural responses (Apperly, 2011; Byom & Mutlu, 2013). Ratka (2018) related cognitive

empathy to perspective-taking, which is the idea of putting oneself in the shoes of others.

Research indicated that not everyone finds it easy to practice cognitive empathy and perspective-taking. In fact, certain individuals find it hard to do so. Decety and Moriguchi (2007) reported that many psychiatric disorders are linked with a deficiency in empathy. These include alexithymia, autistic spectrum disorders, psychopathy/antisocial personality disorders, and borderline and narcissistic personality disorders. In addition, Cooper (2011) stated that "certain types of brain damage can reduce the links between the emotional and rational thinking, and, in turn, reduce the ability to create an internal representation of the outer world" (p. 14). Recent evidence suggests that individuals with Autism Spectrum Disorder (ASD) show a difficulty in cognitive empathy. The conclusion derived from an evaluation of the cognitive and affective components of empathy in fifteen adolescents who have ASD. These were compared with another fifteen controls. Both did a computerised multifaceted empathy test (Mazza et al., 2014). Even though cognitive and emotional empathy can be found in coordination or separately, for the development of empathy an individual needs to be aware of one's own personal emotions, which might differ from those of the others (McCreary, 2017).

Emotional empathy

Emotional or affective empathy is "the subjective mirroring of others' feeling states" (Powell & Roberts, 2017, p. 138). Lim et al. (2020) explained that it starts to emerge in the early years of development and can be related to emotional contagion. This is the automatic adoption of a person's emotional state by another person (Loewenstein, Rick, & Cohen, 2008). Lim et al. (2020) presented the example that newborn infants tend to cry when they hear others who are crying. They stated that by time children tend to develop more their complex reflective thinking and are more able to imagine themselves in the situation of others. Shamay-Tsoory (2011, p. 19) stated that:

> Because emotional empathy is essentially the elicitation of corresponding emotions and respective related behaviours in the observer, it may be suggested that the mere perception of emotion in others will activate the same neural mechanisms that are responsible for the first-hand emotional experience and that the motor response corresponding to the particular emotion will be automatically activated.

This state-matching reaction is closely associated to simulation theories which attempt to explain how people empathise. Simulation theories suggest that there is simulation when individuals see other persons experiencing a feeling (Gallagher, 2012). In fact, Carr et al. (2003) said that through functional magnetic resonance imaging, it was evident that persons who had high scores in empathy tended to mimic more the facial expressions of other persons, done through a neural relay mechanism.

Compassionate empathy

In addition to cognitive and emotional empathy, researchers like Ekman (2003, 2010) and Goldstein and Brooks (2021) identified a third type of empathy, which is compassionate empathy, also known as empathic response. Powell and Roberts (2017) explain that in this type of empathy "we want to help the other person deal with his situation and his emotions" (p. 138). Compassionate empathy is the feeling of sympathy and compassion for others (Powell & Roberts, 2017) and the warmth, concern for others, and compassion generated through positive vicarious emotions (Lazarus, 1999). Bariso (2018) further explains that whereas cognitive empathy describes the understanding of the feelings and thoughts of others and emotional empathy explains the sharing of the feelings of others, compassionate empathy is a step forward because the person takes action to help the other person. Sackeyfio (2020) recommends five strategies for compassionate empathy: 1) the understanding of the uniqueness of one's life journey, 2) the creation of safe spaces for dialogue which build trust and connection, 3) the lack of judgement and bias, 4) the recognition of the whole person that deserves dignity, and 5) the importance of allowing oneself to make mistakes and to learn from them.

The role of empathy in academic achievement

After introducing the tripartite classification of empathy and the neural activity involved during empathy, I will now present research that sheds light on the role of empathy in academic achievement. "In the last 20 years, … research in neuroscience, in personal and social values development, and in artificial intelligence, seems to be reaffirming the significance of the role of emotions in learning and development" (Cooper, 2011, p. 13). Researchers in literature have associated positive affect, including empathy, with creativity, problem-solving (Fredrickson, 2013) and academic achievement (Ben-Eliyahu & Linnenbrink-Garcia, 2013). From a study carried out at the Corinne A. Seeds University Elementary School in Los Angeles, Feshbach and

Feshbach (1987) found a positive correlation between empathy and academic achievement. For this research, 76 10–11-year-olds and 67 8–9-year-olds did affect-related disposition and achievement test measures. These included empathy-related measures, emotional responsiveness measures, Feshbach's Audiovisual Measure of Empathy, the Children's Depression Inventory, Wide Range Achievement Test, the Sears' Self-Concept Inventory, Self-Report Measures of Aggression, and Aggression-Anxiety. Forty-four of the 8–9 year-olds were retested after two years. Another 40 10–11-year-olds were also tested. Results indicated that there is a stronger correlation in girls between empathy at age 8–9 and achievement in reading and spelling at age 10–11. The researchers also added that "these developmental relations between empathy and cognitive functioning suggest that empathy may be conceived of as a coping skill that the young girl uses in adapting to the school environment" (p. 1346). The researchers also stated that empathy can enhance perspective and role-taking, thus helping in reading and in other cognitive tasks like the comprehension of important events. They concluded by saying that this affects the students' academic achievement.

Another study that explored the link between empathy and academic achievement was that held by Durlak et al. (2011). From a meta-analysis of a sample of 135,396 students, they showed that programmes that focused on the emotions of the students, including empathy, contributed to an improvement in student attitudes, a decrease in emotional distress, a decrease in problematic behaviour, and an improvement in academic performance. The later improved by 11 percentile points when measured by grades and test scores. Another study which further confirms this link is that held by Jain (2021), who carried out questionnaires among 120 secondary school students in Kota city.

When researching this area, the role of educators seems to be central. Grigoropoulos (2019) aimed to study how the development of empathy in the classroom enhances student achievement. This was carried out with middle school teachers in ACS Athens who participated in focus groups, interviews and completed a questionnaire. Results indicated that educators who believed in the power of empathy used in class positively impacted the students' sense of safety and security. They found that this led to the willingness of the students to open up for learning and the acquisition of knowledge. At the same time, the interviewed teachers stated that they require training in the facilitation of empathetic practices. Despite there being researchers who are in favour of

the argument that empathy, affective education and socio-emotional learning contribute to academic achievement, there are others who contested it (Duncan et al., 2007) or who even challenged the possibility of teaching empathy, since it is innate rather than learnt (Davis, 1990; Stein, 1970; Zahn-Waxler et al., 1992).

For example, Duncan et al. (2007) analysed six longitudinal studies and concluded that socio-emotional abilities like empathy did not predict academic achievement in the future. Schembri Frendo (2018) studied the cognitive and affective aspects of empathy through infrared thermography. Forty participants, whose mean age was 26, participated in the study. There were participants who were part of the control group and others who were part of the experimental group. Participants were asked to fill in two self-report assessment measures – CAPE-P20 and the IRI scale. The control group was shown an informative neutral video which was not related to emotions or empathy, whereas the experimental group watched an informative video about empathy. Then both groups watched 3 validated short neutral videos, engaged in a relaxing exercise through the colouring of a mandala, and finally watched 3 validated short video clips related to empathy. Throughout the process, participants were asked to sit in front of an infrared camera and rest their head on a chin rest. Infrared thermographic recordings were taken before and during the experiment. Infrared thermography has been validated as a measure for empathic pain and laughter (Salazar-Lopez et al., 2015, as cited in Schembri Frendo, 2018). The results showed no significant decrease in temperature of the nasal area in the experimental group. Hence, "watching validated empathy eliciting video does not make a difference in the physiological response of facial skin temperature specifically the nasal area temperature" (p. 68). Schembri Frendo (2018) stated that "the possibility of teaching empathy has been debated by several academics in related fields such as psychology, philosophy, education and neuroscience" (p. 35). She further explained that Carl Rogers shifted the view of empathy from a skill which is taught to a way of being. Rogers (1959, 1961) stated that if a person has a surrounding environment that is based on unconditional positive regard and active listening, empathy can take place. As a result, it is the environment which enhances empathy.

Despite these studies, others showed the effectiveness of including empathy in education programmes (Bezzina, 2016, 2018; Cooper, 2011; Department for Education, 2021).

The role of empathy in holistic achievement and well-being

Research indicates that empathy is significant not only for academic achievement, but also for holistic achievement. Schembri Frendo (2018) reported that nowadays we are becoming more conscious that emotion and cognition are connected and not segregated. These are connected "through the complex phenomenon of empathy" (Schembri Frendo, 2018, p. 10). As a result, empathy has an important role in holistic education. The term "holistic" originates from *holon*, which is a Greek word that refers to a universe that is made up of integrated wholes that cannot be easily fragmented into parts (Lee, 1988). Psychologists like Jung and Adler focused on this sense of wholeness that is reached when the person develops one's potential (Witmer, 2013). This is closely linked to the concept of self-actualisation. Maslow (2011) defined it as "ongoing actualisation of potentials, capacities, and talents, as fulfilment of mission, … as a fuller knowledge of, and acceptance of, the person's own intrinsic nature, as an unceasing trend toward unity, integration or synergy within the person" (p. 29).

Through a positive multisensory experience based on empathy, the brain and the body absorb the feedback and information around them and become more engaged and engrossed in the experience (Noddings, 1986), so there is greater understanding of the occurrences around them. Freire (1970), Froebel (as cited in Lilley, 1967) and Montessori et al. (2017) all emphasised the need of an affective education that promotes the development of the whole person. Cooper (2011) noted that "no one ever seems to discuss exactly how this quality of empathy can be utilised in teacher education and subsequently, pupil development" (p. 28). Various countries have nowadays adopted different programmes to cater for the social and emotional learning of children in schools. For example, Cooper (2011) explained how affective education and empathy are included in character and person-centred education in the US. In the UK, students have the subject PSHE (Personal, Social, Health and Economic Education), which is a curricular subject that focuses specifically on this personal and social competence (Department for Education, 2021). In Malta, we have the subject PSCD, which is provided to all students from primary to secondary schooling (7–16 years). Through this subject, students address

emotional literacy and become able to practice empathy through circle use and a pedagogy that is student-centred and experiential. This makes an effect on the holistic achievement (Bezzina, 2016, 2018). Holistic achievement has a direct effect on the holistic well-being of the individual (Seligman, 2002).

"The measurement of well-being has advanced sufficiently that it is time to grant a privileged place to people's well-being in policy debates, a place at least on a par with monetary concerns" (Deiner & Seligman, 2004, p. 2). Well-being is defined as the positive evaluations in one's life, which comprises engagement, positive emotions, satisfaction and meaning (Seligman, 2002). Empathy plays an important role in enhancing the well-being of individuals (Rogers, 1963; Seligman, 2002). "There is no dispute that empathy – the capacity to share and understand emotional states of others in reference to oneself – plays a critical role in human interpersonal engagement and social interaction" (Decety & Moriguchi, 2007, p. 1). Cognitive and emotional empathy help individuals to understand themselves and others better, thus enhancing the holistic achievement of the individual and developing the emotional, the social and the spiritual areas of wellness (Hettler, 1976, 1980, 1984; Figure 3). Compassionate empathy also helps in developing these areas of well-being by improving relationships (Powell & Roberts, 2017; Bariso, 2018). As a result, this can also affect occupational, social, spiritual and emotional well-being (Hettler, 1976, 1980, 1984). All this has an impact on one's health and physical well-being as well as on the healthy development of the brain. This is all important when considering that health is complete mental, physical and social well-being (WHO, 1948).

Figure 3

Hettler's Model of Wellness

Source: National Wellness Institute, 2022

Positive schooling

Across a span of years, there were scholars (Elias, 2014; Malecki & Elliott, 2002) who argued that empathy should be the responsibility of parents/guardians, and others (Durlak et al. 2011; Elias et al., 1997; Zins et al., 2004) who stated that it should be part of the curriculum because academic learning is not hindered by such competence. On the contrary, Elias et al. (1997) confirmed that "time devoted to SEL [Socio-emotional programmes] programmes may in fact reinforce and enhance academic learning, and therefore should not be perceived as detracting from academic attention and focus" (p. 85). Durlak et al. (2011) and Zins et al. (2004) argued that empathy is a central part of SEL programmes and literature. They further confirmed the benefit of including this competence in the education system. In fact, different empirical studies (Durlak

et al., 2011; Feshbach & Feshbach, 1987; Grigoropoulos, 2019) have provided evidence that suggests that there is a strong positive correlation between empathy and holistic achievement. This is because, as explained in the previous sections, all parts of the brain are activated.

All this leads to the concept of positive schooling, which is defined as students experiencing school satisfaction and emotional health in terms of emotional literacy and empathy (Huebner et al., 2009). Positive schooling derives from positive psychology, which focuses on flourishing and well-being. It was coined by Seligman in 1998 (Seligman & Csikszentmihalyi, 2000) and builds on the work of human psychologists (Trask-Kerr et al., 2019). When this branch of psychology is extended to schools, there is a focus on student well-being and flourishing, instead of limiting success to academics only (Waters, 2011). Huebner et al. (2009) reported that emotional literacy and empathy appear to be strong predictors of academic achievement, psychological health and holistic achievement and well-being. This is because positive schools consider the strengths of the students as unique, encourage healthy teacher and peer relationships and emphasise student involvement. Rogers (1951, 1959, 1961) proposed three conditions for an effective facilitative social environment: unconditional positive regard, congruence and empathy. Empathy and emotional literacy play an important role in the establishment of a positive school, enabling flexibility and enhancing one's personal skills and resources. Since all parts of the brain are activated when empathy is practiced, there is a high degree of broadening and expansion. "Such cognitive expansion allows one to see the proverbial 'big picture', become more creative, and create and execute action plans outside of one's typical routine" (Fredrickson & Kurtz, 2011, p. 36). Park and Peterson (2011) argued for growing evidence that "certain strengths of character for example hope, kindness, social intelligence [including empathy], self-control and perspective, can buffer against negative effects of stress and trauma, preventing or mitigating disorders in their wake. In addition, character strengths help people to thrive" (p. 49). In this context, positive schools do not only encourage the practice of empathy and emotional literacy, but they also expand or broaden the character strengths, which help a person to flourish and thrive holistically, as well as prevent certain illnesses (Fredrickson & Kurtz, 2011; Park & Peterson, 2011). The concept of thriving is related to flourishing, which is defined as living with optimal human functioning, generativity, holistic growth and resilience (Fredrickson & Losada, 2005).

Sax (2013) noticed that thriving and flourishing occur in a context where there is safety, respect and care, which result in the cultivation of empathy in classrooms. Flourish means "to live within an optimal range of human functioning, one that connotes goodness, generativity, growth, and resilience" (Fredrickson & Losada, 2005, p. 678). This can be reached through the encouragement of students who can inquire, discuss and reflect (Rychly & Graves, 2012). As a result, as Figure 4 shows, this is a cycle where empathy affects holistic development and creates flourishing. In turn, flourishing enables more empathy through the creation of a safe environment.

Figure 4

A Cyclical Process Outlining 5 Key Processes Within Positive Schooling

Source: Author

This can be developed if there are positive and healthy relationships between the educator and the students. Positive schooling is based on positive teacher–student relationships and seems to make a difference in the students' social functioning (Ladd et al., 1999, as cited in Roorda et al., 2011), academic achievement (Valiente et al., 2008, as cited in Roorda et al., 2011), and engagement (Skinner et al., 1990, as cited in Roorda et al., 2011). Dahri et al. (2018) also highlighted the role of empathy in lecturers for the development of healthy relationships, which helps in better learning and holistic development. Cornelius-White (2007) listed variables that make up person-centred teachers and positive teacher–student relationships. These included empathy, warmth, encouragement and higher order thinking. The research carried out by Roorda et al. (2011) investigated the connection between these affective characteristics, including empathy in teacher–student relationships and academic achievement and engagement. Results from 99 studies with preschool to high school students were analysed in terms of the interaction between positive relationships and engagement, negative relationships and engagement, positive relationships and achievement, and negative relationships and achievement. The study showed that there was a small to medium positive correlation between positive relationships and achievement. It seemed that negative teacher–student relationships with lack of empathy had more negative effects in primary rather than secondary school.

Grigoropoulos (2019) stated that educators "need to find ways to build on ethos and empathy in their classrooms. These ways must be welcomed by all parties involved, in order for them to be effectively implemented" (p. 31). Research by Jennings and Greenberg (2009) showed that there is evidence that suggests that when empathy is taught in schools, there is an impact on student achievement; however, it is still not known which strategies mostly enhance this relationship. Nevertheless, Pelonis and Gialamas (2010) argued that it is not difficult to change the policies, but it can be challenging to change the way educators think and behave. This sheds light on the importance of having the necessary training for educators on how to build positive relationships and how to enhance empathy and emotional literacy in children and young people, especially in a context where students need to tackle their future challenges, which might be unknown (Avgerinou et al., 2014).

Positive classroom setting and positive pedagogy

Positive schooling requires a positive school environment and a positive education system. In addition, such schooling comprises a positive classroom setting and a type of pedagogy that is conducive to empathy. In this section, I will give a local example of a positive classroom setting and a pedagogy that is used during the curricular subject PSCD. The classroom setting consists of a circle format where students are engaged to participate and to practice empathy. Evanovich et al. (2020) states that '"circles can thus be used to build relationships, teach empathy, teach academic content" (p. 34). In the circle format, educators make use of a student-centred pedagogy whereby students are invited to participate through a set of experiential activities that specifically enhance emotional literacy and empathy (Kolb, 1984; Kolb & Kolb, 2007; Camilleri & Bezzina, 2021). White (1999) said that the circle format and the pedagogy used help everyone to "open their windows and to set their sights on new horizons" (p. 7). The circle configuration has a series of benefits that are conducive to reflection, including empathy, democratic environment, observation and learning from each other, because it creates a safe and comfortable environment (Camilleri & Bezzina, 2021). The research held by Camilleri and Bezzina (2021) with PSCD teachers in Malta who adopt this classroom setting and the student-centred pedagogy confirmed that the use of the circle is very powerful and sets the optimum environment for empathy. In fact, White (1999) calls it the magic circle due to its transformational effect on the students. The term magic circle was first quoted in the work of Huizinga:

> Just as there is no formal difference between play and ritual, so the "consecrated spot" cannot be formally distinguished from the play-ground. The arena, the card-table, the magic circle, the temple, the stage, the screen, the tennis court, the court of justice, etc., are all in form and function play-grounds, i.e. forbidden spots, isolated, hedged round, hallowed, within which special rules obtain. All are temporary worlds within the ordinary world, dedicated to the performance of an act apart. (Huizinga, 1970 [1938], pp. 28–29, as cited in Moore, 2011, p. 375)

Even though research is showing that positive schools, the circle class format, and the student-centred pedagogy can make a difference in the development of empathy, Singer and Lamm (2009) point out that "recent studies also show

that empathy is a highly flexible phenomenon, and that vicarious responses are malleable with respect to a number of factors—such as contextual appraisal, the interpersonal relationship between empathiser and other, or the perspective adopted during observation of the other" (p. 81).

Suggestions for educators and policymakers

"Society requires well-educated teachers, critical thinkers, who can work according to their values and can continually model learning, as well as a moral and humane approach in their interaction with pupils" (Cooper, 2011, p. 240). In this context, the teaching of emotional literacy, understanding, and empathy is important because it will equip students with the necessary competencies to positively respond to life events and challenges (Nemec & Roffey, 2005; Kirschman et al., 2009). Research is showing that empathy and affective education activate the entire brain, and as a result they matter in holistic and academic achievement. Educators have a major role in the practice of positive schooling, as their pedagogy can engage students and can enhance empathy and affective education. Educators can create a safe classroom environment in class and a healthy positive relationship, which enable communication of feelings and empathy toward one other. Nevertheless, the education system is not the only responsible system that should encourage empathy. The community, parents/guardians, and the society in general should also feel responsible for this. In the light of this paper, policymakers should be convinced that the concern about short-term financial capital should be replaced by concern for emotional capital (Cooper, 2011). This can be possible through policies that encourage positive schooling, as described in the previous sections. Policymakers should also work together to encourage the right training for parents/guardians, community members, and society in general for the appropriate practice of empathy.

Conclusions

"The experience of schooling entails a multitude of factors that affect the developing child" (Feshbach & Feshbach, 1987, p. 1335). This paper was aimed at understanding empathy in more detail, its role within the education system, and how this affects the holistic and academic achievement of students. Nevertheless, it did not present new local research about the impact of empathy on achievement. Another limitation is that for the research paper, no field studies were carried out. These limitations present possibilities for further research. The paper showed that through positive schooling, where there is ample practice

of empathy by educators and ample space for students to be empathic, there is more safety, more flourishing, more engrossment, more brain expansion and more holistic achievement. It is an eye-opener for local policymakers to give affective education and empathy a priority.The 'For All Children to Succeed' (Ministry of Education, Youth and Employment, 2005), the 'National Curriculum Framework' (Ministry of Education and Employment, 2012), the 'Framework for the Education Strategy for Malta 2014-2024' (Ministry for Education and Employment, 2014a) and the 'Respect for All Framework' (Ministry for Education and Employment, 2014b) all emphasise the centrality of having a pedagogy that is person-centred and revolves around the needs of the students, whilst giving importance to their feelings as human beings. However, it is crucial to keep in mind that policies need to be implemented, effective and practical training needs to be provided, and proper structures need to facilitate such focus. It is also suggested that good practices are shared amongst practitioners who are already investing in empathy and affective education. This is because "empathy enables individuals to understand the emotions of others, and to assess and respond to others' motivations, which is vital in effective teaching and learning" (Cooper, 2011, p. 15).

Notes on contributor

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