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**Bringing a SEL approach to Italian Middle and High schools through the
monitoring of social-emotional skills**

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The last 4 years have been a challenging learning experience I could have never imagined. Seventeen years had passed since I was a university student. Since then, I had been indirectly involved in the world of research through International Public Health, particularly in the area of sexual and adolescent health. Would I do it all over again? Yes, and if I could, I would have chosen the PhD path when I was much younger: there is no parallel to the amount of information I have learned, to the new ways of critical thinking I have developed, to feeling a little less intimidated when the information I am imparting is questioned (my husband, *mi t*, the mathematician, appreciates this though he may not have quite noticed that I have this new skill...at least he has not noticed yet!). I have finally come to understand the importance of conducting and supporting research if we are to ensure that public policy is evidence-based.

To have come this far, to the completion of my PhD program, would not have been possible without the support and almost unlimited patience of my husband (*mi t*, the mathematician) and Zoe and Tiago, our two -now- teenage children, my guinea pigs. Yes, you two are one of my biggest motivation for doing this research, and while you may not experience the benefits of the change I envision, I hope future generations will.

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I close these 4 years knowing how much I have learned and how much more I could have learned if the consequences of the COVID pandemic had not taken over part of our lives. Once again, would I do it all over again? Yes, I would: doing research is a great way to get to know ourselves, others and the world around us better.

Last but not least, I would like to thank my parents who have always believed in me, unconditionally, for better or for worse. My Dad has always encouraged me to write a book about my life. I have not quite accomplished that yet, but somehow I feel like I have started to do so through the articles I have written. Dad, I promise to keep writing! And who knows? Maybe one day I will write a book not so much about myself, but about how to bring a positive change to our schools in Italy. I thank my Mom for her grit, her level of determination that she passed on to me. She is someone who has always overcome any obstacles, and to get a PhD, it certainly required a certain amount of grit!

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PREFACE

The main purpose of this dissertation is to highlight the importance of bringing a Social-Emotional Learning (SEL) approach within the school system so that Italian youth and society at large may have the opportunity to try an approach that has benefited students' well-being at school while improving their graduation rates. Implementing this approach is an opportunity for the Italian school system to see a reduction in the high numbers of Early School Leavers (ESL) and NEETS (Not in Education, Employment or Training), numbers which have become worse since the advent of Covid-19 (Eurostat, 2021).

More specifically:

- 1) Italy has the highest number of NEETS in the whole of Europe: 3 million in 2022 (23,1% compared to the European mean of 13,1%) with very little change between 2011 and 2021 (Eurostat, 2021)
- 2) Italy's numbers of early school leavers have increased since the advent of Covid-19. It used to be fourth at the European level, now it is third with a 13,1 % compared to the European mean of 9,7%. Furthermore, when compared to other countries, Italy has not progressed much between 2012, 2017 and 2021 (Eurostat, 2021).
- 3) As of 2020, the Italian government was investing 4,3% of its Gross Domestic Product (GDP) in Education when compared to the European average of 5% (Eurostat, 2020).

Early school leaving not only affects the student, it affects the family, the community and society at large (Freudenberg & Ruglis, 2007).

Although school orientation programs have been in place since 2011 (ASVIS, n.d.; Aburrà, 2014) to help students make career decisions as they move from middle school (MS) to high school (HS) and then from HS to University, the trend continues to be negative. The current NEET plan of the Italian government is to offer specific support to young people in employment centers and through the website "Giovani2030" (<https://giovani2030.it/>), where they can find out about study, work, and volunteer opportunities and get help in preparing their curriculum vitae (CVs). While these steps are well-intentioned, research conducted since the 1990s shows that there is a strong link between social-emotional learning and academic achievement. As a result, there is a need to dig deeper into school culture: Implementing a SEL approach (Zins, 2004) with clear guidelines and training across all curricula while taking into account the different school components and contexts in which youth grow up will strengthen the learning process (MN State dept. of Education, 2019). Although the Italian Ministry of

Education has stated that these skills are as important as academic skills (MIUR, 2018), currently, we know that when these skills are taught in Italian schools, they are taught in a non-systemic way. Instead, students who attend schools that implement a whole-school SEL approach are able to make clearer career choices because this approach means that the various components of the school community are actively involved in developing students' SE skills. Acquiring these skills helps them become more self-aware, improve their self-regulation skills, and thus better understand what type of career they want to pursue (Nota et al., 2004, Council of the European Union, 2022). This dissertation took inspiration from my experiences working with middle and high school youth in the United States and in Italy, and continuing with my own children, both of whom now attend high school here in Turin. I have witnessed too many, often frustrating, occasions when I thought, "...if there had been a whole-school SEL approach, this situation, this particular interaction, this answer, etc., might not have happened the way it did." A whole-school SEL approach would have given teachers and other adults a reference model for important skills and thus an understanding of the importance of relationships with others.

Social and Emotional Learning (SEL) is known to bring many benefits to a school community. Ultimately, it involves motivating youth to become self-aware so that they can learn key social-emotional skills that are conducive to learning (Jones & Bouffard, 2012; Wang et al., 2016). Ideally, students find themselves in a school culture where everyone understands and puts into practice a SEL approach so that there is a common language with one goal in mind: ensuring that every student has a voice and is cared for, ensuring that each student, not only masters the knowledge of a particular school subject, but also has the opportunity to learn about their own potential, develop a sense of agency, and understand how to relate to others so that they can enjoy the school experience and their current life as they continue on the path to becoming a healthier and happier adult.

Therefore, the main purpose of this dissertation is to highlight the importance of bringing a social-emotional approach to the school system so that Italian youth and society at large have the opportunity to try an approach that will benefit students' well-being in school while improving their educational and future prospects. Furthermore, in November 2022 during the production of this dissertation, the Council of Europe announced the importance of implementing this approach in the schools in order to lower the high rates of early school leavers (Council of Europe, 2022).

General objective

Based on our country's precarious situation, the general objective of this dissertation is to introduce a SEL approach in Italian middle and high schools where early school leaving rates are amongst the highest in Europe (Eurostat, 2021).

Specific objectives

For this purpose, this dissertation has 3 objectives:

- i) Examine middle school students' experiences with distance learning to determine what they found most difficult, what they liked most and what they liked least during the 2020 lockdown.
- ii) Explore the relationship between specific social-emotional skills (Sense of Belonging and Grit), which function as protective factors, and their role in reducing Anxiety, as a risk factor while understanding if there is a difference in the relationship between these skills based on students' grade level: middle school versus high school.
- iii) Culturally adapt/validate 5 scales that are used in U.S. school districts where SEL is part of a whole-school approach: Grit, Sense of Belonging, Self-Management, Social Awareness, and Self-Efficacy to the Italian middle/high school context.

To that effect, the **first chapter** of this dissertation will focus on adolescence and their well-being at school together with the role played by social-emotional skills in this process.

The **second chapter** brings together these skills under the umbrella of SEL (Social Emotional Learning) and discusses some of the theories underlying SEL. After this, I present an overview of the work of a leading SEL organization in the United States and of the current approach at the European level. The third chapter provides an overview of the three articles presented in this dissertation. Each of them highlights the need for a SEL approach in Italian middle and high schools. The first article (Chapter 4) does so against the backdrop of the pandemic situation and the distance learning that followed: students tell us what worked and what did not during the lockdown; each scenario can be seen as an opportunity for improvement by focusing on what worked. What did not work might have been minimized if there had been a SEL approach. The **second article** (Chapter 5) instead validates the importance of promoting certain skills in the school context, as they can act as protective factors to reduce risk factors, in this case anxiety, which increased as a result of the pandemic. The **third article** (Chapter 6) presents the validation of 5 scales used in many school districts in the United States

which use a SEL approach. These scales can be used in the Italian context as an entry point for the implementation of a whole-school SEL approach in middle and high schools. This dissertation is an invitation to all readers who are involved in any way with young people to take the opportunity to support and implement a whole-school SEL approach to keep students motivated in school so that they begin to believe in themselves and in their potential.

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CHAPTER 1. ADOLESCENTS' WELL-BEING AT SCHOOL

Education is not preparation for life; education is life itself
John Dewey (1859-1952)

The journey of a thousand miles begins with one step
Lao Tzu (6th century BC)

1.1. A peak into the world of adolescence

Adolescents today, regardless of where they live, how they look, how they dress, how they talk, what they celebrate, all have one thing in common: the search for autonomy. It is a time when biological/physiological, mental, and emotional changes are occurring rapidly, and adolescents are willing to experiment (Fischhoff et al., 1999; Pickhardt, 2009; Christie & Viner, 2005) to gain that autonomy. Social changes are also taking place (Crone & Dahl, 2012): The world around them is their model, and this includes adults and the context in which they live (Bronfenbrenner, 1979; Christie & Viner, 2005). This context also includes their friends (Rabaglietti & Ciairano, 2015), and accordingly, it is a time when they may be pressured to do many things precisely because of this willingness to experiment. Regardless of a person's developmental stage, however, it is easy to be influenced by what others around us are doing, for example: Think of a time when you were waiting for the bus, and the moment someone pulled out their cell phone, you suddenly found yourself pulling your phone out of your pocket (unless you were already looking at it for some reason).

As social animals, we want to relate. Adolescents in particular are most easily influenced by other adolescents (Blakemore, 2018): Their friends and mates become mirrors of themselves through their thoughts, their feelings, and their actions (Lam et al., 2014; Bukowski et al., 2011). According to experiments by Blakemore (2018), who studies the brain during adolescence, this influence is greatest between the ages of 12 and 14, the beginning of a period when the advice of friends suddenly matters more than anything parents have ever told a young person (Rubin et al., 2006). Indeed, experimenting can equal challenging authority (Damour, 2017).

In this process, adolescents seek to develop a sense of identity and understand their place in the world (Schwartz & Petrova, 2018) and while doing so, they undergo constant moments of negotiation between internal and external developmental changes (Christie & Viner, 2005). For this reason, adolescence can be a time of confusion and emotional and mental vulnerability (Holder & Blaustein, 2014; Sisk & Gee, 2022;

Schneider, 2013; Syed & McLean, 2017), during which exposure to various risks may be heightened due to these changes and the desire to experiment (Crone & Dahl, 2012). Confusion and vulnerability may be much greater in today's Western world, where there is such immediate and easy access to any type of unfiltered information due to social media (Cramer, 2018).

There is still much to understand about this latest generation of digital natives, who differ from previous generations in the extent to which their daily lives are infused with technology, in any context, from home to school and everything in between (Poláková & Klímová, 2019). Distance learning, introduced during the Covid 19 pandemic as a protective measure to reduce transmission of the virus, encouraged the use of technology (Koenig, 2020). This meant that adolescents were able to continue some form of schooling and stay in touch with their friends, but it also meant an increase in reliance on social media, especially for girls (Marciano et al., 2022; Pew Research Center, 2022), and with it an increase in new sources of external influences. In a time of transition, when adolescents are trying to understand who they are, how they deal with these external influences can be a critical factor in their well-being.

Given the changes that take place at this stage of life, adolescents can greatly benefit from a scaffolding of knowledge, skills, environments, and adults who provide them with the necessary skills to make them safer and therefore live healthier lives as they move into adulthood (Jones et al., 2019; Siegel, 2020). The next section highlights schools as places of prevention where these protective factors can be taught and maintained to increase youth's chances of securing their own long-term well-being.

1.2. Well-being within the school context

“Wellbeing does not spontaneously grow in the sidewalk cracks of time between class assignments and teacher meetings” (p. 3, Bates and Boren, 2019)

Despite the differences between this generation and previous generations, some things have remained constant: schools continue to be places where children and youth's learning is shaped by the relationships they develop over the course of their lives (Jones and Bouffard, 2012; Hoferichter et al., 2014). These relationships can significantly influence a person's psychological, emotional, and physical well-being and therefore their health (Penedo & Dahn, 2005). In fact, as stated by the British Department of Health (2014) referring to WHO (2013), well-being influences health as health influences well-being, it is a two-way relationship.

Regardless of this awareness, which research has brought to the forefront, many schools around the world continue to focus on short-term achievements, i.e., how well students do in the subjects in which they are taught (Bates & Boren, 2019). Few will dispute the importance of celebrating these achievements, but research tells us that while academic success can predict the likelihood of someone pursuing a university career or a desired job (Alyahyan & Dueştegoer, 2020), it is not enough to get the job, but to keep it.

For true academic success, it is necessary to ensure the social-emotional development that accompanies academic learning (Halle & Darling-Churchill, 2016). In other words, to master these subjects and thus be academically successful, one must become aware of the relational role of the various components of the school community (Sormunen et al., 2022).

Schools are places where learning occurs side by side with and is intertwined with the developing relationships within the school context, so these relationships can have a major impact on how someone feels and therefore how much they feel they belong to the school and consequently how interested they are in learning (Brackett et al., 2011).

Feeling comfortable in school is not only synonymous with performing well in various subjects, but also with how much a student feels that their opinion matters, the extent to which they feel included in a conversation during a class break. Or if they are shamed in front of others because they got a bad grade or did not turn in their homework. Could it have been done differently? It depends on how something is said and when it is said. If the relational side is disconnected from the academic side because teachers are not prepared to fully engage in the instructional process (Bentea, 2017; Jennings and Greenberg, 2009), or because students are not prepared to deal with the difficulties that may arise in school, then students may lose interest in academic subjects, they may become less motivated (Durlak et al., 2011), leading to academic disengagement. When poor decision making is then added, the risk of undermining future success increases (Eaton et al., 2008), and the likelihood of abandoning school becomes even greater, affecting students' overall well-being. As a result, ensuring school well-being means a greater chance of having motivated students, and the consequences benefit not only the students but the entire community (Freudenberg & Ruglis, 2007; Buecker et al., 2018). This means that by the time a student chooses a career, not only will they have a greater chance of finding a job they enjoy, but they will also be able to keep that job because they will also know and understand the importance of the interpersonal side and therefore be able to build positive relationships with others.

According to Witten et al. (2019), subjective well-being declines during adolescence (13-24 years), so it is important to promote it to balance the needs of adolescents as they grow older (Orth & Van Wyk, 2020). As mentioned earlier, this situation is exacerbated

by the changes that occur during adolescence, a time of experimentation when adolescents can engage in risky behaviors but also a time of opportunities, especially when we think about the plasticity of the brain at this age (Fuhrmann et al., 2015) and how much easier it is to learn certain skills at a young age (Figure 1). The changes that occur in the body mean that the memories experienced are powerful and have the ability to drive behavior (Haque and Hasking, 2010; Rubin and Berntsen, 2003; Thomsenet al., 2011 in Davidow, 2016). What youth learn and experience during these years can have a significant impact on their adult lives (Blakemore, 2018). For these reasons, it is easier and less costly to teach certain skills at this developmental stage to build strong brain circuits than to intervene or "correct" them later in life when, for example, brain plasticity is lower and certain behavioral habits are harder to change (Center on the Developing Child, 2011; Bandura, 2004)

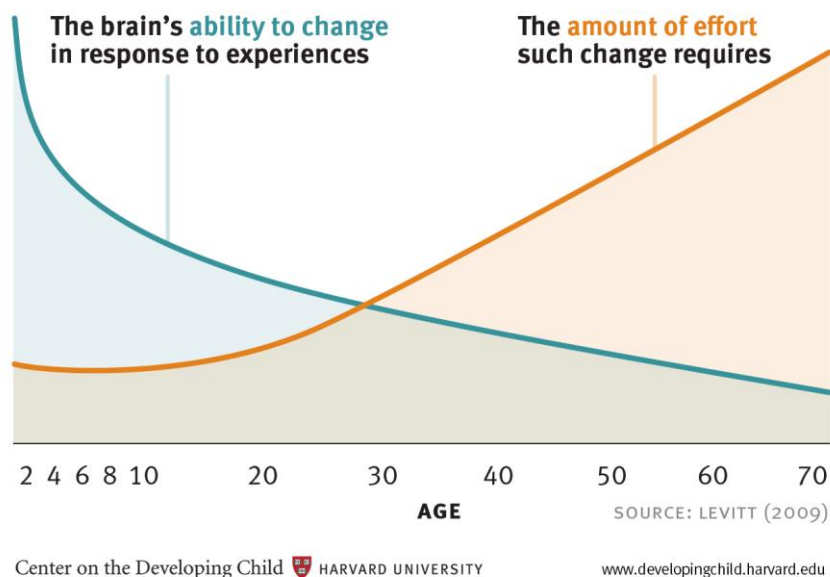


Fig. 1 "It is easier and less costly to form strong brain circuits during the early years than it is to intervene or "fix" them later" (*Brain Architecture*, Center on the Developing Child)

With this in mind, developing social and emotional SE skills in adolescents is an important component of ensuring student well-being and reducing negative outcomes (Abrahams et al., 2019). However, it is also necessary for caregivers, primarily teachers in the case of schools, to have appropriate social-emotional competencies that allow them to move beyond the work routine and purely frontal teaching into a reality where there is an empathetic attitude toward students and a genuine interest in their learning, and where teachers can ultimately be role models of these skills themselves in a supportive, encouraging learning environment (Jones et al., 2021). Therefore, school

well-being is essential to raising mentally, emotionally, and physically healthier future adults in our society.

Well-being can be ensured in many different ways.

The next chapter describes the theories behind one approach to promoting well-being in schools, Social-Emotional Learning (Payton et al., 2000), and how it is being implemented in the United States and Europe along with the use of social-emotional skills to demonstrate the need for collecting this type of data. Given the many scales available, we present the current work of a research group seeking more manageable ways to deal with this amount of information, highlighting the scales developed by a SEL organization in the U.S., the use of their scales, and some of the complications that can arise in collecting data.

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CHAPTER 2. A SEL APPROACH AT SCHOOL AS A WAY TO ENSURE ADOLESCENTS' WELL-BEING

This chapter explains the various theories from which SEL draws inspiration and gives examples of how they relate to SEL.

2.1. Theories related to Social-Emotional Learning (SEL)

In this dissertation, SEL is understood through the lens of Bronfenbrenner's (1979; 1986) theoretical perspective, along with some of the theories that underlie this approach. These theories are important for understanding various mechanisms that influence human behavior and thought processes. Each of these theories is an attempt to understand the social-emotional development of adolescents and how we as adults can promote protective factors and reduce risk factors as they make their way into adulthood.

Bronfenbrenner's theory

Also referred to as "bioecological systems theory" (Paquette & Ryan, 2001), this theory attempts to explain how a person learns to socialize through the various contexts that shape a child's life. This occurs at four levels that influence an individual's growth from the perspective of the social environment and its interactions:

Microsystem: this layer is considered the closest to the individual and consists of the relationships and interactions that have direct contact with the child. Family, childcare, friends, school, neighborhood are examples of environments that are part of a child's microsystem. In each of these environments, there are people with "...different temperaments, personalities, and belief systems" (p. 7) that influence the child, and at the same time, the child may influence and elicit certain responses from these different people (Berk, 2000).

Mesosystem: this layer explains how the various structures of the individual's microsystem are interconnected. This layer can also be considered as a "system of microsystems" (p. 10, Härkönen, 2001). For example, the interactions between a teacher and a student's parents.

Exosystem: in this layer, the individual does not act directly, but the relationships that exist between the structures of the macrosystem and those of the mesosystem can influence the child through the reactions of the parents to a particular situation.

Macrosystem: this outermost layer in the child's environment includes cultural values and laws that can be affected by the interactions of all other layers. An example of this

layer is a parent's job relocation to a new city and how that change can affect the child's environment.

Chronosystem: this level represents how the timing of a particular event can affect the perception of that event and ultimately the child's life. For example, the death of a parent or the changes a child goes through during the various developmental stages in their life. Depending on the age of the child, he or she will interpret this differently and behave accordingly.

In fact, Bronfenbrenner refers to the influence within a layer and between layers as "bi-directional influence." Furthermore, these interactions can change over time and as the child grows older. In short, "Bronfenbrenner's theory...is a systems' theory that allows tackling numerous environmental factors and numerous persons in different interaction relationships, roles, actions and processes." (p. 6, Härkönen, 2001)

Through Bronfenbrenner's (1979) theory, we can understand why different environments consisting of people and their interactions can affect a child's development. School, as such, is a key component in a person's development: From the various interactions between the person and their teachers and peers (microsystem level) to the interactions within the classroom dynamic (mesosystem), they can all influence and shape a person's thoughts, feelings, and behaviours (Trach et al., 2018).

In addition, Bronfenbrenner was a proponent of greater parental and community involvement in child rearing, which explains why this theory is such an important foundation for SEL and helps us better understand the importance of our social nature as human beings and its consequences.

As mentioned earlier, there are other theories besides Bronfenbrenner's theory that serve as the basis for SEL. Four of these theories or approaches will be presented in chronological order: Social Cognitive Theory, Problem Behaviour Theory, Emotional Intelligence Theories, and the Positive Youth Development Approach. Each of these theories or approaches contributes to the foundation of SEL and explains how schools can ensure the social-emotional development of adolescents.

a. Social Cognitive Theory (SCT)

Originally proposed by Bandura (1977) and known as Social Learning Theory in the 1960s, it received its current name in the 1980s. Similar to PBT, this theory considers three components: **Personality, Environment, and Behavior**, but it focuses on learning and how it occurs in a social context where there are interactions between these three components. A person's past experiences can help understand whether they will engage in a particular behavior. In SCT "...The goal is to explain how people regulate

their behavior through control and reinforcement to achieve goal-directed behavior that can be maintained over time" (LaMorte, nd). In Bandura's article on "Health Promotion by Social Cognitive means" (2004) he wrote about "...how self-efficacy beliefs operate together with goals, outcome expectations, and perceived environmental impediments and facilitators in the regulation of human motivation, behavior and well-being." (p.143)

SCT theory views health as a matter that affects the entire community in which an individual grows up. It explains the mechanisms by which individuals can become empowered when they are given incentives to believe in their ability to change certain behaviors or situations. It does this by facilitating access to knowledge, offering opportunities, strategies, and encouragement to put that knowledge into practice. As Bandura (2004) notes, someone who is unaware of the consequences of a particular unhealthy behavior has no incentive to change that behavior because they do not have access to knowledge, opportunities, strategies, and encouragement to put that knowledge into practice. However, for change to occur, it is not enough to know something; one must also be in an environment that facilitates behavior change; in other words, change may be possible at the individual level because, for example, one's close family network encourages and creates an environment conducive to that change.

When it comes to social change, you need systems that promote that change and policies that secure the change so that it can be implemented and sustained. As Bandura states in the same article (2004), "There is limited value in motivating people to change unless they are provided with adequate resources and environmental supports to make that change happen." (p.151)

In the context of this perspective, it is important to have role models who are a source of inspiration and therefore lead someone to believe in and experience the benefits of a particular behavior: In the school context, teachers ideally model key competencies such as self-efficacy and self-management and do not limit themselves to encouraging students by saying how important they are, but actually live out what they say.

b. Problem-Behavior Theory (PBT)

The article by Donovan, Jessor, and Costa (1991) presents Problem-Behavior Theory (Jessor, 1987) as a social psychological framework for understanding what triggers 'unconventional' behavior, that is, behavior that runs counter to an expected social norm and may ultimately be harmful to health (i.e., illicit drug and alcohol use, among others). Using a sample of 1,588 middle and high school students, they explain this theory through the interactions of variables from three systems: **Personality, Perceived Environment, and Behavior**. For each adolescent, there are variables that may go in one direction or in the other, which could then lead to either healthy or

unhealthy behavior. An important conclusion of this study is that health behaviors need to be viewed in a "larger system - an adolescent lifestyle - rather than as isolated and unrelated actions" (Donovan, Jessor & Costa, 1991, p. 60). This promotes a preventive approach and helps understand which strategies are most likely to work when considering interventions. SEL draws on this systemic approach, which Donovan and colleagues (1991) find necessary in order to understand adolescent behavior when using Problem-Behavior Theory. Jones (2019), a leading researcher of SEL, affirms that a systemic approach in SEL is central to reducing risky behaviors and promoting healthier lifestyles therefore increasing a person's well-being as stated in the first chapter.

c. Emotional Intelligence (EI) theories

Since the 1990s, there has been a great deal of interest in the role that emotions play in our lives. Salovey and Mayer first defined emotions as intense and brief "organized responses, crossing the boundaries of many psychological subsystems, including the physiological, cognitive, motivational, and experiential systems" (p. 186) and that can have a positive or negative impact on a person and his or her relationships. As a result, EI was defined as the ability to track one's own feelings and emotions as well as those of others; it also included the ability to discriminate between different emotions and use this information to make decisions, solve problems, and follow intuition (Brackett et al., 2011). In 1997, they reformulated their definition to include the ability to recognize emotions and have a vocabulary to identify, express, and manage them in order to understand oneself and others (Salovey & Mayer, 1997). This 'step' model includes 4 abilities (perception, assimilation, understanding and regulation of emotions), the most basic being perception and the most complex being the management of emotions. After performing two studies, one with adults and one with adolescents, they recognized that age and experience are important factors in the development of EI, which correlates with verbal intelligence and is a predictor of empathy (Mayer et al. 1997). While developing a new leadership theory, Caruso and Salovey (2004), added the intelligent 'use' of emotions as one of the skills which are part of EI and as a way to understand how emotions can influence a person's thought process and that of others. The earlier a person is exposed to EI the greater the opportunity to develop each of its skills (Brackett et al., 2011). Bar-On's (2006) Emotional and Social Intelligence (ESI) model includes 5 skills that determine a person's ESI:

1. Intrapersonal (level of self-awareness, which includes understanding one's emotions);
2. Interpersonal (level of awareness of others and their feelings);

3. Adaptability (this includes the extent to which a person can be realistic, flexible, and try to solve problems);
4. Stress management (the extent to which someone is able to face their own emotions and not let them overwhelm them);
5. General mood (degree of positive attitude towards life).

Each of these 5 skills is then subdivided into 15 subfactors. According to Bar-On (2006), the basic assumption is that a person who has these skills can help "manage emotions so that they work for us and not against us..." (p. 14). When this occurs, these skills contribute to subjective well-being, which is defined by a personal sense of satisfaction with self, others, and one's job. Students who know how to understand and express their emotions, who understand and empathize with the emotions of others, and who also know how to cope with various challenges actually perform better in school (Bar-On, 2006; Fernandez-Berrocal & Extremera, 2006).

The goal is to promote the subjective well-being of individuals through the contexts in which they spend most of their time, whether at school or at work.

In 1995, Goleman introduced his EI model, which includes four dimensions:

1. Self-awareness 2. Social awareness 3. Self-management 4. Relationship management

subdivided into 20 closely related competencies. From the work perspective, the main message was that emotion regulation can lead to one's ability to create and maintain working relationships, i.e.: establish teamwork which is capable of better performance and higher productivity (Jordan & Troth, 2004). This concept has been embraced by several companies who began to incorporate it into their employee selection processes and trainings (Gottman, 2014). From the perspective of employers who seek out personnel with EI qualities, Goleman (2000) makes a case for the beneficial cascade effect EI can have within the school context. He reports on the results of two studies by Hay and McBer (2000) and Lees and Barnard (1999) in which school principals with a high level of EI had a better leadership style which meant teachers were more motivated, had a positive attitude thanks to which they exercised their awareness and acted upon students' needs. As a result, these students performed better in school, consequentially improving school climate (Goleman, 2000). As with other EI theories, the main message is that one can learn about emotions and develop self-awareness skills to regulate oneself, which is essential for coping with adversity and crisis situations, as well as for enjoying work and performing better.

d. Positive Youth Development (PYD)

Lerner and colleagues (2009) explain that PYD is the result of the collaborative experience of working with youth in various community contexts combined with scholarly research involving young people. As a result, it makes use of the plasticity which is characteristic of the period of adolescence and viewing this period as an opportunity for the “promotion of desired outcomes, and not only the prevention of undesirable behaviors.” (Lerner et al., p.12). By moving away from seeing adolescents as a ‘problem’ but rather as a resource to be discovered and promoted. Through a prosocial approach, PYD engages youth to have a voice while developing protective factors such as **Competence, Confidence, Character, Connection and Caring** (5C’s) so that youth can achieve positive outcomes. Yet these outcomes may materialize when youth have the necessary support to grow in a healthy way. Reason why it is necessary for policies to be based on research that comes from a cross-section of different fields and contexts and which demonstrate how youth can really prosper when key skills are fostered through healthy relationships that take place in safe, learning environments.

As mentioned at the beginning of this chapter, each of these theories contributes to the foundation of Social Emotional Learning (SEL), reinforcing the idea behind it while giving meaning to this approach. Given that the relationships within the context, with the environment, with the people (may it be parents, teachers, classmates, friends) can contribute in significant ways towards shaping someone’s way of thinking, feeling about themselves and about others and, ultimately influence how they behave, it is important to ensure the acquisition of social-emotional skills. For this to become a reality, however, it is necessary for policies to be in place. These theories are evidence-based and as a result, a SEL approach is a form of prevention from a public health perspective (Trickett et al., 1996): the acquisition and maintenance of these skills would ultimately benefit society at large (Bandura, 2004; Goleman, 2000; Lerner, 2009). The next section delves into different ways in which SEL is implemented including the difference SEL can make when it is part of a government’s policy. This section will also describe the key role played by measuring and monitoring social-emotional skills as part of the SEL approach.

2.2. SEL approaches in the United States (U.S.) and in Europe

“A schoolwide approach to SEL goes beyond weekly lessons or morning breathing exercises. When fully implemented, you will see SEL woven throughout all classrooms, across the school building, and in the broader school community” (<https://schoolguide.casel.org/what-is-sel/indicators-of-schoolwide-sel/>)

The SEL approach brings together these various theories and puts them into action by actively promoting social-emotional development within the school context and extending it to the community at large. Bronfenbrenner's theory (1979) is particularly useful for understanding how the various social interactions can influence individuals who are part of the school community. Therefore, it allows for personalizing a SEL approach according to a given school's reality and member composition.

The way in which SEL goes from promotion to actual implementation happens in a number of ways: from research organizations (which may be non-profit or for-profit) that develop scales for schools to monitor specific constructs based on given frameworks to supporting them with the creation of guidelines on how to implement SEL based on the school's population needs. SEL can also be implemented through the participation of outside programs which focus on specific aspects of adolescents' social-emotional development. This difference is often determined by the level of commitment from the government either at a local, regional or national level. In the U.S., for example, although SEL implementation is a State's decision, the central government supports States interested in using this approach (Yoder et al., 2020). As a result, SEL has been implemented in a systemic way in several states in the U.S.; however, other states have chosen to have specific life skills' projects which last for a determinate period of time. Similarly in Europe, most SEL projects have come from outside sources and are not an intrinsic part of the school culture.

In this chapter, I will explain how SEL starts with CASEL and their proposal for SEL implementation in the US. This will be followed by some examples of SEL in Europe and in Italy. Finally, I will present in more detail the monitoring aspect of social and emotional (SE) skills and use as an example the skills proposed by one US research organization, Panorama Education, whose scales are used by thousands of US school districts that implement a systemic SEL approach.

2.2.1. SEL in the United States (U.S)

In the mid-1990s the Cooperative for Academic Social and Emotional Learning (CASEL), was founded by a dedicated group of researchers, teachers, practitioners, and child advocates who were the first to coin the term SEL and bring this approach to schools (<https://casel.org/about-us/our-history/>).

The CASEL framework focuses on 5 social and emotional skills within a school/family/community context:

- **Self-awareness** is the ability to accurately recognize one's feelings, interests, thoughts and their influence on behavior. It also includes assessing one's strengths and weaknesses and possessing a good level of self-efficacy, self-esteem and optimism.

-**Self-Management** is the ability to regulate one's emotions and behaviors, in different situations. It includes monitoring and managing stress, impulse control, motivation and reflection, and working to pursue personal goals. According to CASEL, it also includes the regulation of thoughts

-**Social-awareness** is the ability to consider the perspectives of others and empathize with those from different backgrounds and cultures. It includes recognizing social and ethical norms, and the role of the social community and institutions (school, family, work) in one's life.

-**Relationship skills** is the ability to develop and maintain healthy relationships with others. It includes the ability to communicate clearly, listen actively, cooperate, resist negative social pressures, resolve interpersonal conflicts and seek help when needed.

-**Responsible decision-making** is the ability to make constructive and respectful decisions about personal behavior and social interactions. It is based on the ability to consider ethical standards, security interests, social norms, respect for and accurate assessment of the consequences of various possible actions while considering the well-being of the self and of others.

These skills, which are associated with one another, have been used not only in the U.S., but in many parts of the world (Frye et al., 2022; Borowski, 2019) by schools (from K-12) and after-school programs as a foundation for understanding the role each plays in promoting student well-being. As noted in 2019 by prof. Weissberg, one of the founders of CASEL: *“The CASEL framework is widely used by researchers, educators, and policymakers to help establish systemic, equitable, evidence based social and emotional learning for all preschool to high school students. It guides the design, implementation, and continuous improvement of school-family-community partnerships to enhance the social, emotional, and academic competencies of young people.”* (Weissberg-CASEL website)

Yet SEL is not only about measuring and monitoring key SE skills but as we can see from the CASEL framework (Fig. 2), it includes much more:

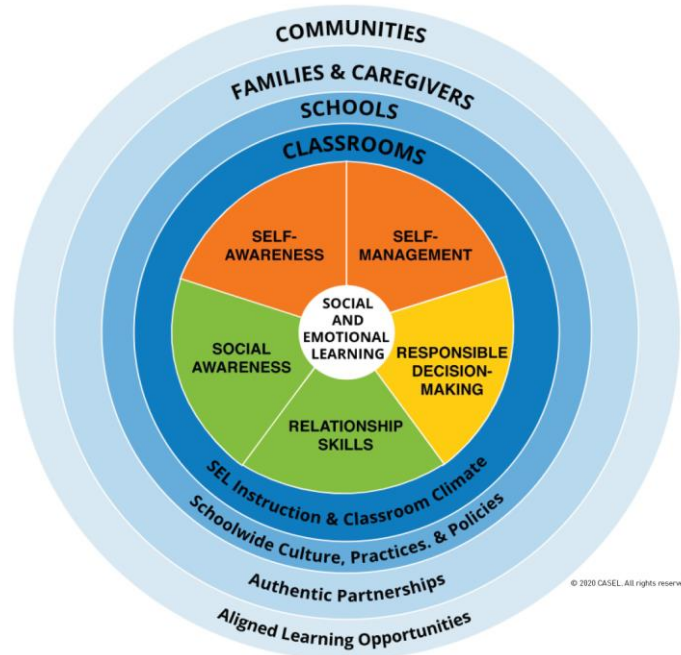


Figure 2. CASEL’s framework for systemic SEL (2020)

This means that for implementation it is necessary to include the points of view of the different stakeholders of the school community. For example, the CASEL framework in particular has been used by many U.S. states to develop SEL standards (also known as learning objectives) for their school districts (McKown, 2019). This means that schools must have guidelines to ensure continuity from assessment and monitoring of key academic and SE skills to evaluation of a SEL approach. Guidelines allow for improvement and schools can adapt SEL according to their own needs (Yonder et al., 2020). In addition, CASEL updated its framework in 2020, adding two outer circles: "Authentic Partnerships" and "Aligned Learning Opportunities" to commit to the goal of striving for educational equity and *“emphasize student voice while acknowledging that the context and environment in which students live cannot be dissociated from their academic, social, and emotional development.”* (Panorama Education, 2020, p.5). By adding these two new rings, the CASEL framework recognises the risk of inequities and thus the need for schools to reduce the possibility of students becoming unmotivated, disengaged, and eventually dropping out of school and losing any interest in returning to complete their education (Bonica & Sappa, 2006). Students who drop out of school may find themselves without the knowledge and skills they need to get and keep a job (OECD, 2016). Because communication and sharing of information and practices is an important part of SEL, not only within schools but also more broadly, CASEL launched a Collaborating States Initiative (CSI) in 2011 to ensure information sharing among states, school districts, and schools and to provide support through the various steps of the implementation

process. Given that SEL has evolved over the past nearly 30 years since its inception, these types of partnerships are important to support research, document best SEL practices for implementation (<https://casel.org/about-us/our-mission-work/collaborating-districts-initiative>), but also to encourage diverse teams to stay informed, trained, and engaged, as implementing a systemic SEL approach is not an immediate process and can be lengthy (Yoder et al., 2021).

In 2011, only one U.S. state (Illinois) had K-12 SEL standards, by 2018 this number had increased to 12 states (Dusenbury & Weissberg, 2018) and by 2022 to 27 (Dermody & Dusenbury, 2022), this increase has been most notable in the last two years, since the advent of the Covid-19 pandemic, which has made much more apparent the need we have, as a society, to pay attention to the mental health of our youth (Koehler et al., 2022). One reason for this growing support is that key stakeholders, from policymakers to teachers and parents, have come to appreciate the benefits of SEL in promoting adolescents' social and emotional development (Dermody & Dusenbury, 2022).

CASEL proposes a State Theory of Action to guide implementation of SEL by covering 4 focus areas : Building a foundational support and plan for SEL 2. Strengthening adult SEL competencies and capacity 3. Promoting SEL for students 4. Reflecting on data for continuous improvement which are organized based on three components: Organizing, Implementing and Improving (Yonder et al., 2021). In U.S. states where there are clear policies and protocols, this means that schools have the support they need to implement SEL (MN Department of Education, 2020). Not all U.S. states have adopted a whole-school SEL approach, and although they support some form of life skills programs in their schools, for which CASEL also provides support in the form of best practice programs, they believe that it is not necessary to go that far and change school culture, and that focusing on academic goals is sufficient. In addition, they believe that the social-emotional development of children and adolescents is the responsibility of the family and that schools should not be involved (Edweek, 2020).

However, given the benefits of a systemic SEL approach, an official, concerted, and organized effort is needed to ensure adolescents' social-emotional development in the school context, as is the case in some U.S. states. After all, as an African proverb says, "It takes a village to raise a child."

2.2.2. SEL in Europe

In Europe, on the other hand, SEL has been much slower in becoming a whole-school approach. SEL is manifested in inconsistent ways. Before describing some specific examples, let us look at the history of SEL in Europe. Parallel to the emergence of

CASEL in the United States, the European Network for Social and Emotional Competencies (ENSEC) was established as an initiative of the Centre for Resilience & Socio-Emotional Health from the University of Malta. Its goal, like that of CASEL, is to support social and emotional development in schools. Although ENSEC has a much smaller scope compared to CASEL, it advocates for SEL by promoting the network and organizing a biannual conference for researchers, educators, and policymakers to network, collaborate, and share information about the latest research. It also has its own journal, the International Journal of Emotional Education (<https://www.um.edu.mt/ijee/>), which publishes the latest research on SEL and, when possible, supports projects that promote SEL.

Unlike in the U.S., adopting a systematic SEL approach in Europe can be challenging given differences in education systems and priorities across countries.

Another organization that has existed since the 1990s, at the initiative of the World Health Organization (WHO), is the Schools for Health in Europe Network (SHE). Nowadays, it is a foundation established and supported not only by European countries, but also by countries in Central Asia. The framework for health promoting schools from WHO, which was reviewed in 2014, takes into account the curriculum, the environment and the families of the students. The results of this review concluded that further research is needed to better understand why certain interventions work better than others (Langford et al., 2014). In 2019, the SHE network published the European Standards and Indicators for Health-Promoting Schools, which, like CASEL, make the case for the strong link between health and school performance and take into account the importance of involving all members of the school, from parents to students to teachers and school leaders, as well as the environment in which learning and socialization take place. The guide includes standards that focus on school policies to ensure student well-being (Bada et al., 2019).

Although many European countries have policies to ensure equity, safe learning environments, skills, school health, and nutrition, the guide suggests establishing some commonality through a set of qualitative and quantitative indicators that can then be adapted to each country's educational system. They suggest that monitoring and evaluation can be done by a variety of entities, from internal to external, using different methods ranging from data collection to interviews and focus groups. The guide provides a list of resources (including finance, services, and staff training) to raise awareness and ensure communication through multiple channels so that indicators measure the progress needed to become a health-promoting school. Similar to the SEL approach, the framework for a Health Promoting School framework requires that the

various members of the school community members be engaged through a common language and a common goal. Ultimately, the end result should be that students are empowered to actively participate in promoting and adopting healthier behaviors (Barnekow, 2006).

As described in the previous section, it is very difficult for schools to do this on their own, so it is the governments' responsibility to draw on available resources to advance this reality.

Another example of an organization that is more focused on measuring and monitoring protective and risk factors in adolescents is the World Health Organization (WHO), which has a surveillance system that conducts an international survey that includes European countries, the Health Behavior in School-aged Children (HBSC). Data are collected every 4 years on the health and well-being of adolescents aged 11-15 years (<https://www.epicentro.iss.it/hbsc/pdf/schede-indicatori-2019.pdf>). Data collected include alcohol use, smoking, eating habits, physical activity, bullying, and cyberbullying. And although the data collected are not part of a particular school's SEL approach, they provide useful information at the national level about how youth are doing in terms of school and classroom climate, including student-teacher relationships. In the case of an SEL approach, these data could be used by individual countries to tailor it to the needs of schools and to raise awareness among teachers and students about strategies to reduce risk behaviors. These reports also encourage schools to involve families in the process. Access to this type of data collection is welcome, but ideally each school would collect data on its own community so that the needs of SEL could be tailored to the circumstances of a particular school.

SEL efforts in the European context are still at an early stage of the process as a systemic approach, especially compared to U.S. states where clear policies are in place and supported, such as in the states of Minnesota and Illinois (<https://education.mn.gov/MDE/dse/safe/social/>; <https://www.isbe.net/sel>). The NESET (Network of Experts working on the Social dimension of Education) report (Cefai et al., 2018) summarizes the skills focused on by different education systems in European countries based on the CASEL framework. The Italian educational system, for example, emphasizes emotional regulation beginning in kindergarten and then focuses on critical thinking and prosocial behavior in elementary school. By the time adolescents reach high school, they are expected to have the skills to manage relationships and "...use appropriate emotional language" "...make proper use of emotional language" (Cefai et al., 2018, p. 82).

At the time of publication of this guide (2018) and this dissertation (2023), Italian schools still have mostly external entities that are invited to carry out programs to raise awareness of some of these skills, rather than as a school culture, which is a necessary step for a school to show real commitment and not only raise awareness but also ensure that teachers and students actively acquire these skills (PROMEHS).

Many SE curricula have been proposed to schools to include the different components of the school community, but the implementation of SEL in Europe still takes the form of a project rather than a whole-school approach (Kendziora and Yoder, 2016). As a result, there are many projects that focus on specific aspects of SE development, such as the following:

*PROMEHS in 7 European countries including Italy with the participation of the various school components via informational seminars;

*Enable <http://enable.eun.org/> in 6 European countries, it focuses on empowering children by eliminating bullying;

*“Learning to be” training course which focused on the training and acquisition of SE skills of teachers and students from 5 European countries including Italy (Berg et al., 2021);

*the RULER method from Yale University in partnership with the University of Florence, focuses on viewing SEL by learning about emotions by recognizing, understanding, labelling, expressing and regulating them (<https://www.rulerapproach.org/>);

*RESCUR from the University of Pavia involving 6 European countries (https://www.rescur.eu/wp-content/uploads/2014/10/rescur_socializzazione.pdf), it focuses on promoting resilience through the school curriculum and also trains teachers.

All of these projects, including those conducted at the local level in Italian regions, such as the project reported by Capperucci and colleagues (2018) that lasted two years and involved families, can serve as inspiration for a future whole-school approach.

In parallel with this reality and beyond the project level, some Italian regions have independently decided to partner with different European country networks, as in the case of the SHE network, where until recently only one region (Lombardy) had officially partnered; others, such as Piedmont, cooperate with the network, but the regional government has not yet officially joined the network. In 2019, another organization called the European Network for Social and Emotional Learning and Well-being (<https://en-sel.eu/>) was established, and again, only one Italian region

(Veneto) has joined thus far. Ideally, collaboration and communication would occur from the central government to the regions and across research groups.

One explanation for why some regions are taking this situation into their own hands is the lack of a practical, supportive implementation plan from the Ministry of Education to ensure the social-emotional development of youth. Despite the existence of all these programs, they are available to schools whose principals are aware of the benefits of considering both SE development and academic achievement. These schools may also have the financial resources to fund these programs. In such a situation, there is a risk of increasing inequity and social injustice, which runs counter to the principles of SEL. As sociologist Franca Olivetti Manoukian noted at the Social Festival Comunità Educative "Ci vuole una città per fare una scuola" held in Turin (Piedmont) in October 2022, "schools often start with useful projects, but as soon as the funding ends, so does the project, and as a country we can no longer afford it."

As stated in the preface, the Italian government invested less in education in 2020, 4.3% of its GDP, compared to the European average of 5% or 7% in countries like Sweden (Eurostat, 2020). As mentioned in the third article, the Italian Ministry of Education (MIUR, 2018) considers the teaching of soft skills important, as they are basic skills that facilitate entry into the world of work. For this reason, it believes that the school system has a duty to promote these skills in its students. Nevertheless, schools are on their own when it comes to seriously implementing any kind of SE development that is systemic and therefore continuous.

Given this scenario, it is not surprising that only some schools participate in this type of program. On the other hand, although a school may have a school board that is aware of the importance and has the financial resources to have a project carried out by an outside association, it does not always have a criterion for selecting the program that meets the actual social-emotional needs of the student or teacher population. Often the selection is arbitrary and based on what is offered by the third sector or the local health system. In most cases, the program selected is a class initiative rather than a program that can benefit the entire school and lasts only a short time, or if it is for the entire school year, then only for a certain number of hours per week (<https://www.fondazione scuola.it/iniziativa/provaci-ancora-sam/>).

And while it may be argued that this is better than doing nothing, studies have shown that providing information in a fragmented way does not help achieve the ultimate goal of ensuring that youth acquire these skills in parallel with a conducive learning environment and staff acquisition of SE skills through ongoing training (Chu & DeArmond, 2021).

According to Jones of the Easel Lab (Ecological Approaches to Social-Emotional Learning - Harvard University Graduate School of Education), the only way to truly teach SE is for these skills to become part of a whole school system where these skills are not just taught, but actually lived, with a new awareness of how we as teachers, as students, how the adults in the school interact with their students and vice versa, through the school material that is taught, through interactions in the lunchrooms and in the school hallways, throughout the school community (Jones et al., 2021; Yonder et al., 2021). In addition, some of these stand-alone, external programs may work for some schools, but not for every school. This is another reason why priority should be given at the government level to the SE development of future generations.

This section has presented two approaches to SEL, one that involves the entire school community and another that is disjointed (Chu & DeArmond, 2021). The advantages of the first approach are obvious, as evidenced by several studies (Zins, 2004, Freeman et al., 2016; Cefai et al., 2018; Weare, 2018; Hamilton & Doss, 2020; Jones et al., 2021; Council of the European Union, 2022). Regardless of the approach, measuring and monitoring SE skills is a way to collect data that can provide information on students SE needs and provide a starting point for a school to understand the importance of implementing a whole-school SEL approach. The next section discusses these skills in more detail.

2.3. Measuring and monitoring Social-Emotional (SE) skills

One of the most important aspects of implementing SEL is measurement and monitoring. As CASEL notes, monitoring allows the data collected to be put into action to understand what and which areas need improvement to ensure the social and emotional development of youth and the adults in their lives (Conference on Leading for Schoolwide SEL: Preparing for the Journey ahead, Winter 2022). In other words, monitoring these skills does not happen in a vacuum, but goes hand in hand with ensuring a learning environment that includes teachers and school staff who believe in and model this approach. In both the U.S. and Europe, these skills are monitored. The difference is whether they are monitored as part of a whole-school SEL approach or as part of an external project. As noted above, the CASEL framework has been adopted by many research organizations, but one of the challenges in implementing SEL is the extensive terminology (Cefai et al., 2018) and the various frameworks that exist to measure specific constructs. In keeping with the principles of SEL, which include communication and collaboration, the Taxonomy Project of the EASEL lab (Ecological Approaches to Social-Emotional Learning at the Harvard Graduate School of

Education) has created the “ExploreSEL” website that simplifies the myriad terms behind SEL. It allows for an interactive comparison of the various domains, frameworks, and skills and provides insight into which domains to focus on depending on the needs of the class or school. For example, by using this website, one finds fairly quickly that the CASEL and EU NESET Frameworks measure the same constructs. Ultimately, the "ExploreSEL" website brings a common language to the world of SEL by facilitating communication between research and practice. Although the website is being continuously updated, it is already very useful in its current form for identifying available frameworks and skills used in different countries. According to the “ExploreSEL” website, there are 6 domains (cognitive, emotional, social, values, perspective, and identity) described as follows:

1. **Cognitive** includes skills that are required to achieve a goal. These are skills that are demonstrated by being able to concentrate, remember instructions, understand which tasks should be done first, be able to self-regulate, make and follow a plan, and know how to make decisions (ie: Attention control, working memory and planning, inhibitory control, cognitive flexibility, and critical thinking).
2. **Emotion** includes skills required at the personal level for recognizing, expressing, and controlling emotions. At the relational (interpersonal) level, they are necessary for understanding and empathizing with the emotions of others (i.e.: Emotion Knowledge & Expression, Emotion & Behavior Regulation, and Empathy & Perspective-taking).
3. **Social** includes skills that help understand how people behave and how to act in specific social situations by learning how to cooperate with others to create positive relationships (i.e.: Understanding Social Cues, Conflict Resolution & Social Problem-solving, and Prosocial & Cooperative Behavior).
4. **Identity** includes self-awareness and knowledge and belief in oneself and in the possibility of continuing to learn and grow while overcoming obstacles (i.e.: Self-knowledge, Purpose, Self-efficacy & Growth Mindset, and Self-esteem).
5. **Values** includes skills, character traits, and habits that support prosocial behavior driven by understanding and caring for others as members of a community (i.e.: Ethical Values, Civic Values amongst others).
6. **Perspective** is about how someone sees the world based on their circumstances, as it can influence how a person perceives and interacts with themselves and

others. It is also about how a person faces certain challenges in everyday life (i.e.: Optimism, Gratitude, Openness amongst others).

Each framework has a set of skills that can be connected with a particular domain. For example, the Clover framework model contains 4 specific skills (Active Engagement, Assertiveness, Belonging, Reflection), each of which has its own definition and each of which is associated with specific measures, programs/strategies, and resources. Based on these skills, each domain has a specific percentage: 40% (Cognitive), 10% (Emotion), 20% (Social), and 30% (Identity).

This section has highlighted the importance of measuring and monitoring social and emotional competencies as part of a SEL approach. To facilitate the selection of scales/frameworks, the Taxonomy Project of the EASEL lab has created the “ExploreSEL” website to facilitate this process. In the next section, we will focus on scales developed by a major U.S. organization whose scales are popular in many U.S. school districts (Panorama Education, 2016).

2.3.1. Panorama Education’s SE scales within a SEL approach

Panorama Education (PE) is a research organization that supports hundreds of school districts across the U.S. by providing them with tools to collect, analyze, and monitor data at the various stages of implementing a whole-school SEL approach. PE has developed sets of scales that schools can use to monitor equity and inclusion, the relationships between families and school, school climate, teacher & staff opinions, adult SEL and well-being measures. PE's surveys correspond to CASEL's 4 focus areas (<https://www.panoramaed.com/blog/how-panorama-aligns-with-casel-districtwide-sel-framework>). One of the surveys developed by PE that meets CASEL's implementation focus area is the "Panorama Social and Emotional Learning" (PSEL) survey, which includes surveys measuring SE skills in students and teachers and assessing a supportive learning environment.

Since Panorama uses the CASEL framework, it has aligned its own scales with those of CASEL, as shown in Figure 3:

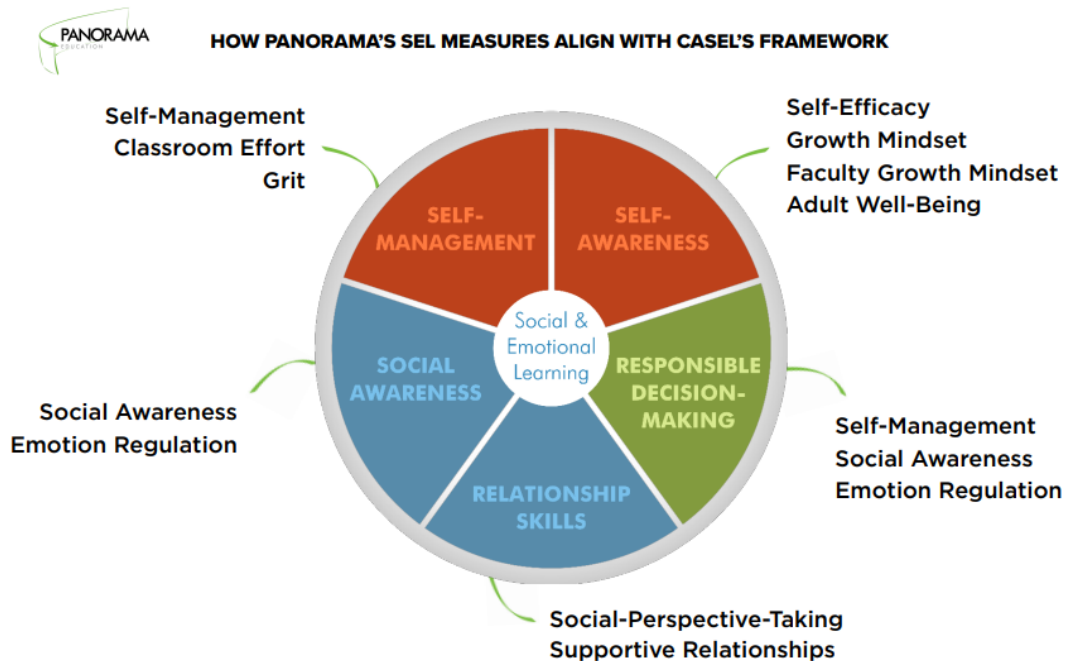


Figure 3. Alignment between the “CASEL Five” competencies and topics from Panorama’s SEL assessments

PE Grit and Self-Management is aligned with CASEL’s Self-Management (PE Self-Management is also aligned with CASEL’s Responsible Decision-Making)

PE Self-efficacy is aligned with CASEL’s Self-Awareness

PE Social Awareness is aligned with CASEL’s Social Awareness and CASEL’s Responsible Decision-Making

And although School Belonging does not appear on the figure, based on its definition, it is part of Self-Awareness.

As we can see from the figure, there can be several PE constructs that are aligned with one of CASEL's, as in the case of Self-Awareness.

The decision to validate 5 of the PE students' scales stemmed from the idea that these scales are used in the U.S. as part of a whole-school systemic SEL approach, and that therefore they could be considered as scales that could pave the way for bringing this approach in Italy.

The Panorama Education scales presented and detailed in the third article of this dissertation, are all interconnected and reflect the benefits of SEL such that students "develop healthy identities (Sense of Belonging), manage emotions and achieve personal and collective goals (Self-Management/Self-Efficacy/Grit), feel and show

empathy for others (Social Awareness)" (p. 2. Panorama Education, n.d.). However, collecting data can pose some issues, as we will see in the next section.

2.3.2. Possible issues when collecting data

Although regular data collection may be one way to gather the information needed to relate these skills to academic performance, ideally the data should be collected in a school that takes a SEL approach to minimize some potential problems that might otherwise occur. Gehlbach and Hough's (2018) article on measuring social-emotional learning through student surveys in California CORE districts highlights several important aspects of data collection, from schools deciding which skills to monitor to the importance of measuring as part of a whole-school approach so that the data collected can be used to improve student well-being (and not just academically). One of the risks of not taking a systematic approach is that data will be collected in a disjointed manner, leading to students not believing in the importance of responding to surveys, and carelessly answering questions (i.e.: satisficing/social desirability bias).

For these reasons, and regardless of the specific constructs being monitored, the authors encourage those interested in measuring SEL to reflect on 4 key questions: 1. How well were the measures (scales) designed? 2. How well do the measures fit the context? 3. With what degree of accuracy are the data being collected? 4. To what extent are the data used appropriately? Each of these questions is accompanied by other sets of questions that, as mentioned earlier, help to consider sources of potential bias as well as types of scale validity (such as content and structural validity). Such an approach allows the SEL data to be used as a "flashlight, not a hammer" (Marsh et al., 2016 in Gehlbach and Hough, 2018) and, most importantly, to avoid implementing SEL measures that "further scapegoat already vulnerable populations."

Furthermore, as researchers continue to measure risk factors such as depression and anxiety (Carvajal-Velez et al. 2021) that have increased among adolescents due to the effects of the Covid 19 pandemic, there is a need to not only continue to develop more instruments to also measure positive constructs among adolescents (Orth & Van Wyk, 2020; Rose et al, 2017) and consider variables such as gender, cultural, and socioeconomic background, as adolescents have different mental health needs and these need to be addressed accordingly (Bodeker et al. 2020 in Orth & Van Wyk, 2020).

Collecting data with a SEL approach in mind could clarify the purpose of data collection and hopefully reduce these potential problems.

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CHAPTER 3. THESIS FRAMEWORK

Each of the specific objectives of this dissertation corresponds to an article which has been published in an internationally recognized journal.

3.1. Organization

In the first article of this dissertation (Chapter 4), the importance of relationships in particular between teachers and students are highlighted. These relationships were challenged by the emergency situation of the pandemic which unexpectedly put a strain on every aspect which is involved in the teaching and learning (König et al., 2020; Rabaglietti et al., 2021). Distance learning made students realize how the school context gives them a structure to their daily lives and having had this change even if temporarily, gave them a new perspective and appreciation of not only the school itself but of their relationships with their teachers and with other students, and how their learning was defined by these long distance dynamics (Petretto et al., 2020; Tosolini & Venturi, 2020).

The second article (Chapter 5) zones into how this new way of relating to one another as a result of Covid-19, has impacted the socio-emotional development of youth in light of the increase in anxiety levels (Edgcomb, 2021; Hawrilenko et al., 2021; Petretto et al., 2020; Pieh et al., 2021; Viner et al., 2021). In this study, we measured two key social-emotional skills (Grit and Sense of Belonging) and confirmed how they function as protective factors in reducing anxiety (Arslan, 2021; Cefai et al., 2018; Lan et al., 2020; Pendergast et al., 2018) which was lowest for middle school students but highest for high school students who had longer periods of distance learning from home (Commodari & La Rosa, 2021). The Grit and Sense of Belonging scales used for this article were the same which are used by many school districts that have adopted a SEL approach in the United States (Panorama Education, n.d.). It is important to note that these scales were used for the first time in the Italian context and that the Grit scale used at the time of the analysis of the data was then further validated in the following article (Lattke et al., 2022). In fact, the third article (Chapter 6) illustrates in detail the content and structural validation of those two scales plus three more, Self-Management, Self-Efficacy and Social Awareness and makes a case for using them as a way to collect data that can assist in measuring and monitoring these social-emotional skills but furthermore as a gateway to bringing a systemic SEL approach (CASEL, 2020; Jones and Bouffard, 2012; Payton et al., 2000) in Italian middle and high schools.

3.2. Overview

In the following table we have a brief overview of chapters 4, 5 and 6, each representing an article.

Brief description of the articles (Chapters 4, 5, and 6)

Chapter 4 Distance Learning during the 2020 COVID-19 Lockdown: The Experience of Italian Middle School Students

Objectives To examine middle school students' experiences with distance learning to determine what they found most difficult, what they liked most and what they liked least during the 2020 lockdown

Method Qualitative study with a total of 285 students (56% female; 44% male) with mean age of 13 years (± 1 year; min = 11; max = 15) who completed an online questionnaire. Responses to three open-ended questions were analyzed and coded using content analysis and an inductive approach. SPSS 26 was then used for descriptive analysis based on the frequencies of the prevalent categories

Results A total of 7 categories emerged: Learning, Device, Relationship, Other, Environment, Nothing, and Time. The results suggest that important aspects of students' lives during the lockdown had dual meanings. For example, technological devices were experienced as a means of communication, learning, and maintaining relationships, but were also associated with inequities, technical difficulties, and misunderstandings.

Discussion Student responses support schools' role as a place to foster technological skills, especially social and emotional skills, in order to develop concrete strategies to assist students and teachers improve their relationship skills and be better prepared for future pandemics.

Journal/Year. *Adolescents* (2022), 2, 389–399. <https://doi.org/10.3390/adolescents2030030>

Chapter 5 The relationship between students' Sense of Belonging, Grit and Anxiety during pandemic times

Objectives i) explore the relationship between Sense of Belonging and Grit, as key social-emotional skills which function as protective factors and their role in reducing ANX, as a risk factor ii) understand whether the relationship between these variables

changes based on students' grade level (GL): middle school (MS) versus high school (HS).

Method a total of 451 students from North/Central Italy, 71% F (M=15.07, \pm 2.46), of which 266 from HS, answered an online questionnaire in Spring 2021. Data was analyzed by doing a correlation analysis, difference between groups based on GL and hierarchical regression with SPSS 27.

Results The correlation analysis confirm that SB and GR are positively related; when controlling for differences in GL via t-test analysis, SB and GR are higher for MS. When measuring the SB/GR (Panorama Education, 2016) and its impact on the state of ANX (Spielberger, 2010) via the hierarchical regression, SB/GR decrease while ANX increases in particular for HS students.

Discussion This study shows that anxiety has had a greater impact specially on HS students. Reason why the school, as a community, should create environments in which students have the opportunity to develop a sense of belonging and grit.

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Chapter 6 PE-Iv (Panorama Education-Italian version): the adaptation/validation of 5 scales, a step towards a SEL approach in Italian schools

Objectives To culturally adapt/validate 5 scales: Grit, Sense of Belonging, Self-Management, Social Awareness, and Self-Efficacy to the Italian middle/high school context. These scales are widely used in U.S. schools which have a SEL approach.

Methods After cultural adaptation, this cross-sectional study collected data from 709 middle/high school students who answered an online questionnaire (2021). Reliability statistics, confirmatory factor analysis, Spearman correlations and t-tests were performed to determine construct and criterion validity.

Results Psychometric properties showed good internal consistency and confirmatory factor analysis showed a good fit index. The differences in gender and grade level support the validity of the instrument.

Discussion This study confirms the validation of 5 new scales which measure specific social-emotional skills that can be used by schools interested in taking a first step at having a whole-school SEL approach.

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CHAPTER 4. First article (Appendix A)

Title: *Distance Learning During The 2020 Covid-19 Lockdown: The Experience of Italian Middle School Students*

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CHAPTER 5. Second article (Appendix B)

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CHAPTER 6. Third article (Appendix C)

Title: *PE-IV (Panorama Education-Italian version): the adaptation/validation of 5 scales, a step towards a SEL approach in Italian schools*

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CHAPTER 7. CONCLUSION

This dissertation reports on the current situation of Italian adolescents in a country which has the highest number of NEETS, ranks third in the number of early school leavers at continental level (Eurostat, 2021) and which government invests less in education compared to the European average (EUROSTAT, 2020). In spite of several government efforts since 2011 to ameliorate this situation through various orientation programs (ASVIS, n.d.; Aburrà, 2014), Italy continues to be in a precarious situation in this regard. One possible alternative which has not yet been tried in Italy as a whole school approach is Social and Emotional Learning (SEL), an approach which sees adolescence as a window of opportunity to foster their social and emotional development especially during a time in life when it is easier to acquire social-emotional skills. As a result, this approach actively supports the social-emotional development during adolescence (Zins, 2004) within the school context while involving the school community.

In support of this argument, this dissertation reviews the scientific literature which supports the importance of teaching social emotional skills as protective factors within the school context during adolescence in particular (Bandura, 2004; Brackett et al. 2011, Jones et al. 2012). The most recent literature on the different ways in which SEL is implemented in the United States and in Europe is discussed together with , the reasons why SEL should be seriously considered for implementation as a whole-school approach in the Italian school context especially at a time when the challenges to education and learning have increased due to the Covid-19 pandemic. Lastly, there is the presentation of the validation of 5 scales (PE -Iv) which are used by U.S. school districts which implement a SEL approach as a way to measure social-emotional skills, along with some of the complications that may arise in the process of data collection when it is carried out without considering a SEL approach.

As stated in the first chapter, adolescence is a time of many changes (Fischhoff et al., 1999; Pickhardt, 2009; Christie & Viner, 2005), and nowadays there are even more factors that make growing up another challenge: from the consequences of the Covid 19 pandemic to having access to technology potentially at any time (Cramer, 2017). When someone is exposed to information overload without having the necessary skills to filter that amount of online information, when someone feels pressured to do something they would rather not do but cannot express it, it is often because they do not have the necessary skills to understand themselves (self-awareness) (Bandura, 2004; Siegel, 2020) and regulate themselves to focus on what is important (decision-making)

(Brackett et al, 2011), among other skills. For all these reasons, and considering the historical moment in which we live, it is essential to promote social-emotional skills at a young age: This can be a preventative measure to not only encourage and motivate students to learn and focus better, but also to help them become mentally, emotionally, and physically healthier adults (Durlak et al., 2011).

In the same chapter, we examine the fundamental role that school plays in this process, as it is a place where adolescents spend many hours of their day and where they experience important learning and relational moments. The various theories presented in Chapter 2, Bronfenbrenner's Bioecological systems theory (1979); Social-Cognitive theory (Bandura, 1977); Problem-behavior theory (Jessor, 1987), Emotional Intelligence theories (Mayer & Salovey, 1997; Goleman, 2000; Bar-On, 2006) and Positive Youth development approach (Lerner, 2009) give meaning to an approach such as Social-Emotional Learning and justify why it can be essential for fostering social-emotional skills not only in adolescents, but also in adults who are part of the school community (Weissberg, 2019).

As described, there are two main approaches to implementing SEL, either as a whole-school approach in which a change in school culture occurs (as in the case of many U.S. states supported by the federal and state governments), or as an external, single project that runs as long as funding for the project is secured, as in the current case in Italy. The type of SEL to implement depends on a number of factors, such as how interested school leaders are in making SEL a priority.

From a Bronfenbrenner's theoretical perspective (1979), the implementation of a SEL approach extends to the exosystem ideally involving government policies at the national, regional, and local levels. When SEL becomes a priority at these levels, schools can get the support they need to implement it as a whole-school approach. In the United States, for example, where there is a federal system, each state can decide the extent to which this approach should be part of the school culture or taught as a stand-alone project by outside associations. This chapter also describes how some states have made this approach a top priority by having policies for school districts to ensure that the various aspects of implementing a whole-school SEL approach include staff training (not only of teachers) and active student participation so that students are not passive recipients of information or "just" taught by adults, but are active members of the school community who have a voice and feel a sense of belonging to the school and their class. This type of whole-school SEL approach facilitates the acquisition and continuity of social-emotional skills (Chu & DeArmond, 2021; Jones et al., 2019; Zins, 2004).

Part of considering the implementation of a SEL approach includes having access to different frameworks and scales which can be used to meet the social-emotional needs of students. Since there is such a vast use of terminology and of tools available, the second chapter, describes ExploreSEL, an initiative from the Taxonomy project of the EASEL lab (Ecological Approaches to Social-Emotional Learning), which seeks to find a common language for the extensive terminology and frameworks available for child and adolescent social-emotional development. This chapter also describes the work of WHO, ENSEC, and the SHE network Foundation, both of which are working in this direction.

Together with the different examples, there are many resources to create a health promoting school in the Italian context, integrating a SEL approach to ensure that our youth have the opportunity to see a better future.

The following chapters (4, 5, 6) each report an article which contributes to support the importance of adolescents' social emotional development within the school context.

The first article of this dissertation (Chapter 4) confirms the importance of the relationships between students and the people with whom they interact. And although the era of distance education has been one that has led to many misunderstandings, in part due to the difficulties with technology, but also due to a school system that has traditionally placed more emphasis on the learning of subject knowledge and taken for granted the relational side that can be fostered instead.

We know that the pandemic and the lockdown have underscored the importance of school in the lives of adolescents: this article once again highlights the difficulties young people faced at a stage of life that already brings so many changes. One of the most frequently mentioned categories was "relationships," which confirms that school is a place where adolescents learn how to relate to themselves and others; not being able to act out these relationships in a place they were accustomed to and the uncertainty brought on by the pandemic led to an increase in anxiety for many adolescents.

The second article (Chapter 5) provides evidence of the importance of social-emotional skills as protective factors that can reduce risk factors such as anxiety. These skills are ideally taught, but most importantly, they are lived in the school context. The study also provides evidence that students who stayed at home and therefore continued their schooling from a distance and without the possibility of face-to-face contact had higher levels of anxiety. In parallel with these findings, the third article (Chapter 6) presents the validation process of five scales commonly used in schools that adopt a systemic

SEL approach in the U.S.. These scales can serve as a starting point for the implementation of SEL in middle and high schools in Italy.

SEL is experienced by schools in many different ways, with different resources (from specific projects which involve teachers and students to whole-school approaches which involve trained staff, adequate and conducive learning spaces, monitoring systems-) and varying levels of commitment from different components of the school community and which often depend on the school's vision and the priority it will give to adolescents' social-emotional development (Chu & DeArmond, 2021; Ed Trust, 2022; Jones et al., 2021). Ultimately, it is up to each school to decide what resources it has and what it wants to focus on, whether through individual projects or through an entire school system in which it *"transforms the entire culture and climate of the learning environment ...by integrating norms, expectations, policies, procedures, and pedagogical approaches that support SEL into all aspects of the learning system"* (p. 9, Jones et al., 2021). However, research has shown that a whole-school approach really works.

7.1. MAIN RESULTS

The qualitative content analysis of the first study illustrates what was most important in students' school life during the lockdown period: "learning," "device," "relationships," "environment," and "time." These categories reflect how their perceptions of school changed for them. Each category had a double meaning: on the one hand, students could appreciate the benefits of technological devices in providing continuity of some form of schooling and the ability to stay in touch with their classmates; on the other hand, the devices themselves interfered with their interactions in the ways they were used to. Indeed, being physically separated from classmates and teachers during the lockdown was difficult for most students, leading to an increase in their stress levels (Lee, 2020; Miller, 2021) and also affecting their learning. Another example, although less frequently mentioned compared to the other categories, was "environment" and the fact that while many students reported feeling comfortable at home, many others reported that it distracted them. As a result, the environment is another component that in a SEL context is fundamental for proper SE development, in fact during the lockdown inequities were increased since not everyone had the same access to spaces which were conducive for learning (Parolin & Lee, 2021). The results of this study also confirmed that being a digital native (Prensky, 2001), is not a synonym of knowing how to use these technological tools (Engen et al., 2014; Li & Ranieri, 2010).

Instead we find that this generation spends meaningful amounts of time on technology for social media and online gaming (Sofianidis et al., 2021). Both reasons for which having social-emotional skills that foster self-awareness and self-management, for example, can be essential in regulating oneself and the time spent in these digital spaces.

The results of the second study (Chapter 5) showed that there is a positive relationship between two social-emotional skills, sense of belonging and grit, and that they can act as protective factors to reduce the risk factor of anxiety (Arslan, 2021; Minnesota State Department of Education, 2019; Oriol et al., 2017). Middle school students demonstrated a stronger sense of belonging and grit compared to high school students who had to spend extended periods of time in distance learning (Mascheroni et al., 2021) and were therefore physically separated from school and from their classmates and teachers (Buonsenso et al., 2021), a situation that, when combined with the accumulation of the lockdown experience from the previous year, led to an increase in anxiety (Commodari & La Rosa, 2021). The uncertainty of this period, the **V**olatile, **U**ncertain, **C**omplex, and **A**mbiguous world (VUCA), (Hader et al., 2020), exacerbated this level of anxiety that was already present before the pandemic (Hawrilenko et al., 2021; Pelissier et al., 2021) and impacted students' academic performance and level of engagement. Since social-emotional skills can ensure student well-being by reducing levels of anxiety, students who have been exposed to distance learning over an extended period of time would benefit greatly from focusing on acquiring these skills. Especially considering that students' social-emotional skills are not systematically promoted in the Italian school context (Cefai, et al. 2018), further limiting their opportunities for healthier living.

The results of the third study (Chapter 6) describe the cultural adaptation to the Italian context of five scales used by schools implementing a systemic SEL approach in the U.S.. As a result, these scales are used to regularly monitor the following skills: Self-Efficacy, Self-Management, Grit, Sense of Belonging, and Social Awareness (Gehlbach and Hough, 2018; Kautz et al., 2019). In the course of validating the scales using a confirmatory factor analysis, some items were removed because they had low factor loadings, after which the fit indices improved.

As in other studies (Oriol et al., 2017; Malti et al., 2018; Kanopka et al., 2020; Vestad et al., 2021), the results of this third article confirm the extent of the association between these SE skills. Moreover, based on these associations and the similar results in the U.S. and Italian populations, we were also able to confirm construct validity. One of the interesting findings we found in this study was that the sense of belonging was higher among middle school students than among high school students, probably because they had the opportunity to physically go to school, which gave them the opportunity to relate to their classmates in a real context. Yet we found a weak association between the sense of belonging and social awareness, which we believe was due to the effects of prolonged distance learning affecting the relational side of

students (Guazzini et al., 2022).

We believe that the validation of these scales can contribute significantly on two fronts: 1) to the international discussion on how the whole school approach is being implemented, particularly in Europe; 2) motivate schools to use these scales to provide data that can help better understand what schools can do to support students' social-emotional development. Based on the evidence, a SEL approach is a way for adolescents to stay motivated and engaged in school, thus potentially reducing the rate of students abandoning school and running the risk of becoming NEETS. These scales can be a way to measure and monitor SE skills to start providing useful data during the process of implementing a SEL approach in schools that want to commit to it.

7.2. METHODOLOGICAL LIMITATIONS

There were some limitations in the 3 studies reported in this dissertation, all of which should be kept in mind to improve future studies to support the implementation of SEL.

One of the limitations of the first study was that no specific analysis software was used to examine the content, which might have further improved the understanding of students' responses. In addition, as part of a SEL approach, it would have been interesting to consider the responses of other members of the school community, such as teachers.

For the second study, we had to accept three limitations. One was the different sample size of middle and high school students; the second limitation was that the sample was not representative of the whole country, but came mainly from two specific regions. The final limitation was that we did not include key variables such as gender and nationality, which might have provided more insight into how these variables affect grit and sense of belonging.

Regarding the last and third study, after validating the PE -Iv scales, the original intention was to further validate its psychometric qualities through measurement invariance. This would have allowed us to understand whether the differences we saw between groups (i.e., classes and gender) were in fact differences between those groups and not due to differences in item interpretation (Gehlbach & Hough, 2018). Although we believe the scales to be psychometrically valid based on the results of the second and third studies, we will still conduct this analysis in the future.

Overall, we would have liked to collect data from a much broader range of schools with higher proportions of immigrant adolescents and in other regions of the country, especially because SEL is about reducing inequities (Elias et al., 1997; Gehlbach & Hough, 2018; Allbright et al., 2019), but we were unable to reach out to other schools during this time. We expect to be able to do so in the future, especially with the idea of bringing a SEL approach to schools.

7.3. PRACTICAL IMPLICATIONS

All three articles in this dissertation report practical implications by building a case for the importance of Italian schools to actively foster students' social-emotional needs given the benefits they have on their education and on their well-being.

The first article contributes to the literature written on the educational and relational consequences for middle school adolescents who had to continue their schooling from a distance during the Covid-19 lockdown. It confirms the importance of schools as places where adolescents learn how to be with themselves and with others and the need for schools to have a vision of how to bring academic and social-emotional development together in order to foster students' social and emotional skills together with those of their teachers.

The second article contributes to the literature by confirming the increase in anxiety lived by older adolescent students (Hawrilenko et al., 2021) who had to experience distance learning for longer periods of time when compared to younger adolescents. It also attests to the importance of how having certain social-emotional skills (such as Grit and Sense of Belonging) can function as protective factors which in this case, helped students have lower anxiety levels. The article emphasizes schools as places where these skills can be learned and promoted not only for students but for teachers as well.

The third article presents a case for bringing SEL into Italian schools by having validated 5 social-emotional scales which can be used as a way to collect and monitor data that will provide information on students' social and emotional needs. Monitoring can be a way for schools to justify which mental, emotional or physical health programs to choose while they continue to consider the possibility to implement a whole school SEL approach. The data collected by these scales can then be associated with academic variables such as grade and school attendance in order to see how the social-emotional side will affect school performance. We hope that this association will then confirm the need for a whole school SEL approach which can then help in reducing the numbers of early school leavers and NEETS in Italy.

Regarding the practical implications of the three studies conducted, it is deemed important to report a broader reflection on the possibility of implementing the SEL approach in the school context.

When SEL is implemented as an external school project, as is the case in Italy, there is a risk that it is short-lived and does not meet the needs of the schools, so that not everyone benefits from the project and is not convinced of the importance of promoting the social-emotional development of students, continuously and in a structured way, so that this is part of the vision of the school and not only because there was an opportunity to participate in a project. As noted earlier, an appropriate SEL approach is about regular engaging members of the school community (Jones et al. 2019) so that SEL can be secured from within the school structure. At the government level, it would be desirable to have a clear commitment to adhere to European school health programs. It is no longer enough to monitor the cognitive and non-cognitive performance of adolescents unless there is at least a concerted effort as a region and as a school with clear guidelines that bring together a structured approach such as SEL.

It is important not to see SEL as either a substitute for or a hindrance to what is already being done in and by schools. Schools and outside entities, be they associations or/and university research groups, are doing their best to drive this kind of development, but it will not be sustainable as long as it comes from outside the school itself. Those who live in a particular school community know best what their needs are, and SEL can be a way for them to learn how to ensure the social and emotional development of their adolescents.*The point is to find a way for both the academic and social-relational sides to come together and strengthen each other in a structured way. Many activities related to health promotion and social-emotional learning are on paper and in legal documents, but when the actual activities are reviewed, there is very little to report.

7.4. FUTURE PROSPECTS

During the doctoral period, the SE-CREA Departmental Research Group was constituted. The interest of the Research group includes the study of social-emotional and creativity skills, as protective factors which promote adaptation and social inclusion within the different contexts of development in the life cycle, with particular reference to children and adolescents, and through the implementation of intervention projects. https://www.dippsicologia.unito.it/do/gruppi.pl/Show?_id=hcbb

Together with my advisor prof. Emanuela Rabaglietti and colleague Aurelia De Lorenzo, we continue to study the positive effects of social-emotional and creativity skills within the school context. As part of our research we have collaborated with

various organizations and schools, sometimes in some, sometimes in all of the steps that a project entails: from literature review, writing, design, data collection/needs assessment, implementation to the monitoring and evaluation. At the local level, we have collaborated with the ASL/TO3, Circolo del Design, DoRS-Piemonte, COSP (former Orientation services of the Piedmont region) and a number of schools, in particular with the Scuola Morelli. At a national level we have collaborated with various universities amongst which the Scuola Superiore Sant'Anna, Università di Roma Tor Vergata and with a school located in another region, Istituto Comprensivo Francesco Berni (Pistoia, Tuscany). At an international level, we collaborate in the research group of the Schools for Health in Europe (SHE) network, the European Association for Developmental Psychology (EADP), the European Network for Social and Emotional Competence (ENSEC) and with researchers from several European universities, including which The University of Silesia in Poland, the University of Eastern Finland, the University of West Attica in Greece.

In November/2022, I was a guest at the Department of Public Health Sciences at Stockholm University. On this occasion, I had the opportunity to discuss with prof. Fabrizia Giannotta the results of data collected in Spring 2022, possible ways to interpret the data and ideas for an article. I also briefly met prof. Laura Wreder-Ferrer, who works in the department of Psychology at the same university, and exchanged ideas about the school systems in Sweden and Italy. During my stay, I met a number of school teachers and learned more about some school practices that promote students' social-emotional skills. Based on these conversations, I would like to learn more about the Swedish school system and consider the possibility of creating a network through which teachers in Italy and in Sweden can share different school practices that help students acquire and maintain these skills.

Furthermore, in the coming future, we expect to continue collaborating with different schools to promote these newly validated scales.

SElect your Future...SEL as a way to foster students' social-emotional development to then ensure better career choices

During the months of November and December 2022, the University of Turin organised a European training: "INNOUNITA: Training and Mentoring Entrepreneurship", a program aimed at integrating university research in the world of entrepreneurship. Our research team SE-CREA was selected along with 5 other groups to participate in the training. The goal is to bring SEL into schools to help reduce the number of ESL and NEETS. At the end of the training, our team was selected to represent the University of Turin and Italy. We competed against 5 other countries and

were selected as one of the three winners. This means that our team will continue to have access to training that will be useful for creating a spin-off to introduce this approach in Italian schools.

A fourth article will look at another scale of PE -Iv (Self-Management) in the school context and the role it can play in improving academic performance and reducing stress, especially in boys. More specifically, our data analysis tells us that boys who have SM skills and play online video games can improve their grades in mathematics.

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CHAPTER 8. LIST OF PUBLICATIONS AND PRESENTATIONS

This chapter presents the results of the various scientific contributions and congresses I have participated in:

Lattke, L. S., De Lorenzo, A., & Rabaglietti, E. (2022). The relationship between students' Sense of Belonging, Grit and Anxiety during pandemic times. *Revista Romaneasca pentru Educatie Multidimensionala*, 14(4 sup 1), 488-499.

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Saulle, R., De Sario, M., Bena, A., Capra, P., Culasso, M., Davoli, M., De Lorenzo, A., **Lattke, L.S.**, Marra, M., Mitrova, Z., Paduano, S., Rabaglietti, E., Sartini, M., & Minozzi, S. (2022). School closures and mental health, wellbeing and health behaviours among children and adolescents during the second COVID-19 wave: a systematic review of the literature. *Epidemiologia e prevenzione*, 46(5-6), 1-20.

Lattke, L.S., De Lorenzo, A., Tesauri, B., & Rabaglietti, E. (2022). Distance Learning during the 2020 COVID-19 Lockdown: The Experience of Italian Middle School Students. *Adolescents*, 2(3), 389-399.

Sormunen, M., **Lattke, L.**, Leksy, K., Dadaczynski, K., Sakellari, E., Velasco, V., ... & Rosário, R. (2022) Short commentary published in the *Scandinavian Journal of Public Health*: "Health promoting schools and COVID-19; strengths and challenges". Health promoting schools an COVID-19: preparing for the future. *Scandinavian Journal of Public Health*, 14034948221091155.

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Lattke, L.S., De Lorenzo, A., Tesauri, B., & Rabaglietti, E. (2020). Dall'emergenza alla prevenzione: competenze socio-emotive e creative nella scuola di oggi. *Salute Umana*, n°280, 2020

Lattke, L.S., De Lorenzo, A., Settanni, M., & Rabaglietti, E. Socio-relational well-being and dropout in vocational schools: a study on school engagement and satisfaction. *Well-being in Education Systems*, 57.

De Lorenzo, A., **Lattke, L.S.**, Rabaglietti, E. Creativity and resilience: a mini-review on post-pandemic resources for adolescents and young adults. *Frontiers in public health*, under review

CONFERENCES/SEMINARS

“Sense of belonging/Grit at school and its role in reducing anxiety and self-harm amongst adolescents” Lynda S. Lattke, Aurelia De Lorenzo, Emanuela Rabaglietti at Symposium: "Peer relationships and socio-emotional processes: Understanding the relational development from infancy to early adulthood" (XXX National Congress in Psychology, Padova-26 to 30/09, 2022)

“The relationship between students’ Sense of Belonging and Anxiety during pandemic times”, Lynda S. Lattke, Aurelia De Lorenzo, Emanuela Rabaglietti Social Emotional Learning for current challenges-Innovative approaches to Inclusion (ENSEC 30/06-2/07/2022, Suceava, Romania-online)

“How did body image affect self-efficacy during the pandemic period? A mediation study on Italian adolescents” De Lorenzo A., Lattke L. & Rabaglietti, E. (EADP Summer Tour 2021 during the conference on “Developmental Trends: Concerns and Opportunities” (Polish Association of Developmental Psychology, 3,10, 17/09/2021-online)

“Nuove sfumature relazionali, verticali e orizzontali, durante la pandemia: la prospettiva degli studenti” Lynda S. Lattke (33rd Italian national Congress of Developmental Psychology, 22/9/2021-online)

“Socio-relational well-being and dropout in vocational schools: a study on school engagement and satisfaction” Lattke, Lynda et al. (SHE Academy, 4-6/11/ 2020-online)

“The role of self-efficacy as a mediator between the perception of the difficulties of distance learning and perceived stress amongst teachers in Italy and the rest of Europe” De Lorenzo Aurelia, Lattke Lynda S., Tesauri Beatrice, Rabaglietti Emanuela (SHE Research Group, 28-29/11/2020-online)

“Winter School in Evidence Based Interventions (EBI). Social and Emotional Competence in Infancy and Childhood: Developing Inclusion” (Sapienza University-Rome, 14-16/11/2019)

“Methods in research in Health Promoting Schools” SHE Academy 2019 (Claude Bernard University Lyon 1, St. Etienne, France 4-6/11/2019)

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SE-CREA Research group

<https://www.dippsicologia.unito.it/do/gruppi.pl/Show?id=hcbb>

SHE Research group <https://www.schoolsforhealth.org/>

Italian Association of Psychology (AIP) <http://www.aipass.org/>

European Association of Developmental Psychology (EADP)

<https://www.eadp.info/>

European Network of Social and Emotional Competencies (ENSEC):

<https://www.enseceurope.com/>

CHAPTER 4. First article (Appendix A)

Title: *Distance Learning During The 2020 Covid-19 Lockdown: The Experience of Italian Middle School Students*

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Article

Distance Learning during the 2020 COVID-19 Lockdown: The Experience of Italian Middle School Students

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Abstract: Northern Italy was one of the first European regions to be affected by COVID-19 restrictions which led to school closures and the compulsion to learn from home. This article examines middle school students' experiences with distance learning to determine what they found most difficult, what they liked most and what they liked least during the 2020 lockdown. A total of 285 students (56% female; 44% male) with mean age of 13 years (± 1 year; min = 11; max = 15) completed the online questionnaire. Responses to three open-ended questions were analyzed and coded using content analysis and an inductive approach. SPSS 26 was then used for descriptive analysis based on the frequencies of the categories that emerged: Learning, Device, Relationship, Other, Environment, Nothing, and Time. The results suggest that important aspects of students' lives during the lockdown had dual meanings. For example, technological devices were experienced as a means of communication, learning, and maintaining relationships, but were also associated with inequities, technical difficulties, and misunderstandings. Student responses support schools' role as a place to foster technological skills, especially social and emotional skills, in order to develop concrete strategies to assist students and teachers improve their relationship skills and be better prepared for future pandemics.

Keywords: middle school students; teachers; social-emotional skills; distance learning; content analysis



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1. Introduction

The consequences of the COVID-19 health emergency have resulted in an unexpected life-changing event which has brought stress for most people at various levels. The strict measurements to contain the virus have altered the continuity in the lives of adults, teens, and children in entire communities [1]. One of these measures was the Italian government's order to close all schools and enact distance learning from home [2], a change which caught most teachers and students psychologically and technologically unprepared [3–6].

During this pandemic, school communities suddenly found themselves confronted with a completely new and unexpected scenario, moving from the traditional form of face-to-face teaching, which was essentially based on paper books and notebooks and face-to-face interactions and human contact, to an exclusive form of teaching/learning based exclusively on the use of digital platforms [7]. This new reality led to a number of problems: in addition to uncertainty about access to the necessary technological devices and programs for online instruction [6,8], a school day had to be reinvented in order to strengthen bonds within a "community" of staff, teachers, students, and parents who had to communicate through a computer or cell phone screen while trying to find a substitute for the informal style and warmth that is more readily available in person [9].

1.1. Schools' Role in the Development of Students' Social-Emotional Skills

School is a place where students spend most of their day, and, therefore, one of the social-relational settings where young people begin to construct their own personal identities [10], including the development and reinforcement of social-emotional skills [11,12]. In

fact, social–emotional skills, like general academic skills, continue to develop over time, but their promotion is particularly important during the preadolescent (11–13 years) and adolescent (14–18 years) periods [13]. These sensitive life stages are characterized by changes, opportunities, and important challenges that traditionally occur when physically present at school.

As a result, adolescence is a moment of reorganization of cognitive, emotional, and social systems [14,15], in which the influence of each component of the school community can be meaningful, in particular, the relationships with classmates and teachers. Teachers' role can be critical in motivating students to learn [16]. As Frymier and Houser [17] reported, it is not enough for teachers to be knowledgeable; it is equally important that they know how to communicate verbally and non-verbally [18]. Similarly, the relationship students build with their peers can influence their motivation to learn and encourage them to achieve their objectives [19–21]. All of these paradigms were challenged when schools were closed due to the COVID-19 pandemic.

1.2. Consequences of Distance Learning on Students' Lives during the Lockdown

Distance learning meant a reduction and/or elimination of contact with the senses, including physical contact, perception, looks, motor skills, and even smells, which drastically limited the active student–student/student–teacher relationship in the learning experience and may also have significantly affected cognitive development [22]. Considering the Italian context, where schools were neither technologically nor mentally prepared for this change from face-to-face to online instruction [5], the sudden closure of schools meant a steep learning curve for everyone involved [8,23]. Both teachers and students had to struggle with communicating through an electronic device and learn to deal with problems that ranged from interruptions in the internet connection to non-functioning microphones or cameras [24], situations that led to misunderstandings and, potentially, to subsequent demotivation to study [25]. Indeed, studies from the lockdown period confirm how much learning was affected by these changes and how difficult it was to adapt to a new way of teaching and learning [26]. This problem was exacerbated by the fact that middle school students were at home, an environment they associated with a place to do homework but not with school itself. In these circumstances where learning was at stake, teachers also felt pressured to complete the school curriculum at a certain pace, which caused stress and may have affected the relationship with their students [27]. In fact, during the COVID-19 pandemic, it has become quite evident the role schools play relative to students' non-academic needs, and the influence that these needs can have on learning [28].

On this basis, this qualitative study describes how distance learning was experienced by middle school students by collecting and analyzing their responses to three open-ended questions:

1. What do you find most difficult in distance learning?
2. What do you like most about distance learning?
3. What do you like least about distance learning?

2. Materials and Methods

2.1. Participants

A total of 285 middle school students from northwestern Italy (Piedmont) participated in this study. Students' mean age was of 13 years (± 1 year; min = 11; max = 15) and of this total, 161 were female (56%) and 124 were male (44%). There were 79 students (28%) from the first year, 104 (36%) from the second year, and 102 (36%) from the third year of middle school.

2.2. Procedure and Data Collection

After our study was approved by the University Bioethics Committee (Prot. No. 157942), we distributed an online questionnaire in May 2020 asking students to consent to participate. Because all students in our sample were minors, parental/guardian consent was

also obtained. The questionnaire was distributed by school principals, who were asked to share the link to the questionnaire with their teachers. For distribution, we also relied on the Piedmont Network of Health promoting schools which collaborates with the European network (SHE-Schools for Health in Europe Network Foundation). The questionnaire included sections on sociodemographic data, daily routines, and eight ad hoc open-ended questions. Overall, it took 20' to complete.

In this study, we examine students' responses related to distance learning and how it has affected their lives.

2.3. Data Analysis

Content Analysis: Determining the Codes and Categories

First, three inter-coders read the responses to each of the questions and independently decided on the codes based on the frequency of words and arguments [29]. The inter-coders then discussed and agreed on the categories.

The formulation of the categories was created while trying to respect as much as possible the criteria for mutual exclusivity and exhaustiveness; however, it was not possible to do so in several cases because specific responses reported content that applied to more than one category.

For this purpose, a coding grid was created to which all coders referred. Descriptive analysis of the coded data was carried out using SPSS.

Value labels in SPSS were determined based on whether the argument was either present (1) or absent (0). For example, responses in the Relationship category were assigned a value of 1 regardless of whether the response was positive: "due to the lack of contact with teachers and classmates" or negative: "low availability from teachers"; in both cases, the Relationship category was present. The following table shows a summary of the codes which led to the creation of each of the categories (Table 1).

Table 1. Summary of the coding grid for each of the categories.

Categories	Description
Device	
Use of computer (hardware and software)	Understanding how to use the device and fix any technical problems.
Access to computer (hardware and software)	Possibility to follow lessons and stay in touch with classmates and teachers.
Quality of internet Connection	When poor, it led to misunderstanding amongst those using it.
Distraction	Due to internet connection, home environment or/and time online.
Health	Was affected due to the amount of time spent online.
Learning	
Technology	To follow online lessons and learn a new way of using electronic devices.
Understanding	Of material taught depending on a number of factors (i.e., online interactions, quality of connection).
Concentration level	Decreased due to distractions, yet it increased for those with a quieter home environment.
Anxiety	About exams if difficulty in understanding and keeping up with online lessons.
Relationship	
Use of computer screen	Developed a new perception of classmates and teachers due to being in different places.
Interactions	Changed dramatically due to distance learning and not having physical contact.
Communication	Was often perceived as trying to convey the subject being taught while the social dimension was reduced.

Table 1. Cont.

Categories	Description
Teachers' availability	In which the sense of immediacy and boundaries from their teachers changed.
Environment	
Comfort	As a result of following lessons from home and having a different sleep schedule.
Restrictive	Since schooling took place in a space they were not used to.
Time	
Management	Of time given that lessons were followed from home and there was more time to do other things.
Other	
Miscellaneous	Answers that were varied and did not fall in any of the categories.
Nothing	
No difficulties	Were found by these students.

3. Results

3.1. Content Analysis

The following results are presented as individual categories based on responses to each question about what students found "most difficult," what they liked "most," and what they liked "least" about distance learning. At the end of each category, a student's response is reported for better illustration.

The content analysis resulted in the categories shown in Table 2:

Table 2. Categories based on responses to each question.

Questions	Categories						
	Learning	Device	Relationship	Environment	Time	Other	Nothing
1. Difficulties	142	90	48	–	–	–	35
2. Positive Aspects	–	82	39	60	–	49	57
3. Negative Aspects	70	116	90	17	24	67	–

Note: These cells indicate the absolute frequency (n) of the answers given inside each of the categories. Instead, the cells in which no numbers appear (–) indicate that these categories were not identified in the answers to each question.

3.1.1. What Do You Find Most Difficult in Distance Learning?

A total of four categories emerged for this question: Learning, Device, Relationships, and Nothing. Below is the description of each category:

- "Most Difficult" in Distance Learning: Learning ($n = 142$)

For 50% of students' responses, difficulties emerged particularly when following lessons at a distance. The reasons for this were varied, ranging from the difficulty of staying awake after so many hours of online classes in front of the computer screen, to distractions that occurred not only at home but often due to a poor internet connection that interrupted the flow of the lesson. Students also mentioned increasing difficulty in certain subjects such as mathematics and foreign languages. Students felt that it was difficult to discuss certain arguments further, which resulted in widening the knowledge gap that some of them already had. As a result, some students expressed anxiety about their written and oral exams and felt insecure about their overall learning. Example: "That sometimes you don't understand but you don't say it".

- “Most Difficult” in Distance Learning: Device ($n = 90$)

In total, 32% of students reported that they had technical difficulties using a device and felt unsure how to navigate the internet, such as how to find assigned homework or make sure the assignment had been properly sent to the teacher. Some participants reported having difficulties with the device, either because they had to follow the lessons with the device or because they had technical problems with certain parts such as the video or/and the microphone. Some of the difficulties focused on concentration interference due to the number of hours spent in front of a screen. Example: “Not everyone has a good internet connection, and it is difficult to concentrate”.

For both categories, Learning and Device, 20 responses expressed difficulty in understanding the teacher’s explanations, either because of the device, which was not only technically distracting, but also because of the added difficulty that students were not accustomed to learning through a computer screen (especially at the beginning of the closure, when distance learning had just begun). These difficulties were also experienced by those who had to watch the video lessons (i.e., not the live lessons). This response describes both scenarios: “When your internet goes down and you can’t finish the lesson. When it’s windy outside and the internet is weak, it’s difficult to understand what the teachers are saying since their voices are interrupted”.

- “Most Difficult” in Distance Learning: Relationship ($n = 48$)

Only 17% of students indicated that it was difficult not to see each other. In this category, 43 students specified these difficulties based on whether it was the teacher and/or the classmate:

- Relationship with teachers and students ($n = 28$): Overall, students indicated that it was difficult to physically see either their teachers or their classmates which resulted in the lack of interaction and socialization: “The fact that we cannot see the teachers nor classmates in person so the atmosphere changes”.

- Relationship with classmates ($n = 5$): These responses were similar when they mentioned only their classmates: “Not being able to hang out with my friends”.

- Relationship with teachers ($n = 10$): Students’ responses focused on how communication with their teachers had changed; some felt that they were less available and that it took longer to receive answers from them. One student described it this way: “...if you have a doubt you have to send a message and wait for the teachers to answer but when we were in class they could give you an answer right there and then”. Thus, the device also determined the communication dynamic: at a distance, students often had to wait for the teacher’s response, whereas at school, the response was much more immediate. Others felt that a faulty internet connection made teachers suspicious, wondering whether or not the student was actually having problems with the internet. Being in different locations meant no longer having the opportunity to discuss things as they did in school, and many felt that communication was limited to the classroom: the social dimension had drastically decreased.

- “Most Difficult” in Distance Learning: Nothing ($n = 35$)

Finally, 12% of the responses included answers from students who had no difficulties during distance learning. Example: “Quite frankly, it has not been difficult for me”.

3.1.2. What Do You Like Most about Distance Learning?

We identified a total of five categories: Device, Environment, Relationships, Other, and Nothing.

- “Liked Most” in Distance Learning: Device ($n = 82$)

For 29% of students, the benefits of the device were highlighted as a way to continue their education. For these students ($n = 14$), it was important and fun for them to learn how to use this type of technology and this new way of learning. Students also appreciated the use of technology for video calls and the opportunity to improve their technological skills by using computers and cell phones differently, including computer programs (such as

Word and PowerPoint). Example: *“The thing I like most about distance learning is to know how to use technology”*.

- “Liked most” in Distance Learning: Environment ($n = 60$)

In this category, 21% of the responses described the environment as the convenience of being able to stay at home in a quieter place and the convenience of being able to get up later because of not having to physically go to school. Some students mentioned that they appreciated that there was less chaos because they were in a familiar environment. This allowed them to enjoy the silence, which improved their concentration and made them feel more comfortable during exams: *“That I’m home and I don’t have to take the bus and I don’t have to get up early”*.

- “Liked Most” in Distance Learning: Relationship ($n = 39$)

A total of 14% of students’ responses referred to the relationship. A more detailed analysis of this category indicates the following breakdown:

-Relationship with teachers and classmates ($n = 34$): Most students were grateful to be able to see their classmates and teachers, even if it was only through a computer screen: *“The fact that I have never been so eager or thrilled to see my classmates or professors again after so long of not seeing them even if through a screen”*. A few appreciated the opposite and were content not to see some of their classmates: *“Staying home, and not seeing some of my classmates every day”*.

-Relationship with teachers ($n = 5$): Some students felt that teachers were more available than usual, i.e., outside of class time, and that they could talk to them about anything. These students appreciated the flexibility of their teachers: *“That there is plenty of time to do homework and I can contact teachers 24/7 (if they respond)”*.

A total of 32 students were grateful to have access to a device that allowed them to see their classmates and teachers, as mentioned earlier, even if it was a relationship mediated by the device.

- “Liked Most” in Distance Learning: Other ($n = 49$)

A total of 17% of responses ranged from having more time to look up information to being more independent and organized to being able to cheat more easily and enjoy the reduction in homework. Some students ($n = 13$) were also pleased with the shorter length of lesson time.

- “Liked Most” in Distance Learning: Nothing ($n = 57$)

Finally, 20% of these students thought that there was nothing positive about the distance-learning experience: *“Nothing, I don’t like it at all”*.

3.1.3. What Do You Like Least about Distance Learning?

The categories that emerged were: Device, Relationship, Learning, Time, Environment, and Other.

- “Liked Least” in Distance Learning: Device ($n = 116$)

The word “connection” predominated in this category with 41% of responses. Students described how often they had problems with the quality of the connection and, thus, with the number of interruptions. Responses also mentioned technical problems, ranging from whistling noises due to open microphones to problems with the video camera. In addition, teachers in a particular class were using different platforms, which was confusing for students when they needed to find or send homework. Some of the responses were about the impact of the device on health, as sitting in front of the screen for long periods of time caused headaches and eye irritation: *“Sometimes maybe the connection doesn’t work well and I can’t understand what the teachers are saying and... as a result, I cannot study well”*.

- “Liked Least” in Distance Learning: Relationship ($n = 90$)

In 32% of the responses, the relationship was somehow determined by the device. They mentioned the coldness they felt from the computer screen, since there was no physical contact, and that sometimes they could not see all their classmates in every lesson, since not all of them could follow the online lessons. A more detailed analysis of this category indicates the following breakdown:

- Relationship with classmates ($n = 80$): Overall, students indicated that they miss the feeling of being a class group and not having their friends next to them to talk to: *“I do not see them in real life”*. One of the aspects students liked least was not being able to see their classmates in person: *“I cannot see my friends and the internet connection may drop”*.

- Relationship with teachers ($n = 10$): These students’ responses were about the difficulty of not seeing their teachers and not interacting, discussing, and communicating with them as they used to when they were present in school: *“Lack of direct contact with the teachers”*.

- “Liked Least” in Distance Learning: Learning ($n = 70$)

About 25% of the students expressed concern about how they would be able to cope with the exams because the level of attention and comprehension in distance learning was different from that in school. One student explained this as follows: *“... sometimes I don’t understand the lectures and since they are too short I don’t have time to ask (teachers) to explain (the concepts) again”*. As in the analysis of what was most difficult in distance learning in terms of the Learning category (see Section 1.2.), the answers were similar: even when there were explanations, they could not always follow them because of the poor internet connection. The word “understanding” was repeated frequently: students were concerned about how little they could understand the online lessons compared to the lessons in school.

- “Liked Least” in Distance Learning: Time ($n = 24$)

Only 8% of students complained about less lesson time and about the distribution of lessons throughout the day compared to before COVID-19. These students also complained that teachers had less time to explain the material accurately because lessons were shorter; they also reported having more homework. This meant that students had to organize and allocate their time differently than they had before the pandemic: *“I have difficulty managing my time”*.

- “Liked Least” in Distance Learning: Environment ($n = 17$)

In contrast to the results under “Most Liked” in distance learning (2.2), 6% of respondents did not appreciate following lessons from home and felt a lack of freedom and of daily routine: *“... I cannot touch my desk and wander around in the classroom (as I used to)”*.

- “Liked Least” in Distance Learning: Other ($n = 67$)

Finally, 24% of students’ responses did not fall in any of the above categories.

4. Discussion

The results of our study reflect the impressions of middle school students in Northern Italy regarding distance learning during the first closure in spring 2020. According to content analysis, “Learning,” “Device,” and “Relationships” were the most frequent categories that emerged from all three open-ended questions answered by students, while “Environment” and “Time” were less frequent.

The Device category is the most prevalent in the responses students provided to all three questions. The tool that made distance learning possible seems to represent a topic on which students show an ambivalent attitude. On the one hand, students identify it as one of the main difficulties they encountered during the first lockdown (32% of responses), and as one of the aspects they liked least about distance learning (41% of responses). On the other hand, however, some students (29% of the responses) stated that the device represented one of the most interesting, innovative, and enjoyable aspects of distance learning.

This ambivalence about the device can be explained by a number of factors concerning Italian students and schools in the pre-COVID period. As the literature suggests, Italy, unlike other European countries, was not prepared for the sudden technological immersion, mainly because schools did not use the device regularly before the lockdown [5]. Although the students who participated in the study belong to the generation known as digital natives, that is, they were born and raised with digital tools to access the internet [30], several studies have shown that being a digital native does not necessarily imply possessing good digital skills [31,32]. In fact, there are many disparities between the digital skills of students in this age group. Moreover, it should be considered that many of their digital skills are related to recreational use such as social networking and online gaming [33]. For these reasons, we think that the results in the Device category are interesting: students enjoy using these types of devices, but they need adequate training to use them competently in the school context.

The Learning category, which appears only in the responses to the questions about the difficulties (in 50% of the responses) and what they liked least (in 25% of the responses) related to distance learning, is closely linked to the device. Indeed, most of the learning problems reported by students can be attributed to difficulties in using or a lack of availability of suitable devices. As mentioned above, distance learning based on new technologies was not introduced in Italian schools before the pandemic period. This meant that neither teachers nor students were prepared for this situation, which made the transition to this new way of learning much more difficult.

The Digitization of Economy and Society Index (DESI) confirms the serious gap in digital skills in Italy, which ranks 20th in Europe [34]. The fact that students did not have easy access to digital devices and did not know how to use them made the situation worse, as students had to spend many hours in front of screens [24] while trying to figure out how to use a device and follow a lesson at the same time. As a result, the learning mediated by the device was more complex, as students reported in their responses.

The Relationship category is the third most important and appears as a response to all three open-ended questions: as “difficulty” (for 17% of responses), as “liked most” (for 14% of responses), and as “liked least” in distance learning (for 32% of the responses). This category includes, in particular, responses related to the relationship with classmates and teachers that students were able to maintain thanks to distance learning. However, the presence of this category in all three questions leads to reflections on the role of distance learning.

Relationships, as students were accustomed to living them before the pandemic, were undoubtedly the most severely affected during the lockdown period. The inability to socialize with peers and teachers was one of the aspects that students most often report as a reason for their great distress. Several studies indicate that the lack of living relationships in physical presence has played a role in exacerbating anxiety disorders, stress, and risk behaviors in students [35–37]. It is not surprising, then, that the relationships mediated by the device were perceived as complex, a situation that led to misunderstanding, difficulty, and isolation.

At the same time, during the period in which the students answered our questionnaire, for more than three months, the device was the only instrument that could guarantee students a daily relationship with people outside their family. For this reason, the relationship is one of the “most liked” aspects of distance learning, considering that in the preadolescent and adolescent age, socialization in school is fundamental for the development of one’s identity [10].

Even if less represented in the responses, it is interesting to note that for both categories of Environment and Time, a new and double meaning was acquired during the lockdown period [38,39]. Again, there was an ambivalent presence for both categories. For some of the students, the opportunity to learn from home, surrounded by their own comforts, was a positive aspect. Given the shorter lesson time and delayed school start, they were able to sleep more and spend more time with their families and in extracurricular activities when

they would have otherwise been at school. These were all factors that meant that the home environment was particularly valued, but at the same time brought with it many more distractions that interfered with learning, including having to share reduced home space with other family members. Although the latter did not feature strongly in these responses, studies such as Parolin and Lee [40] report the exacerbation of inequities among students who had different resources (in terms of equipment) during the period of initial lockdown, as well as spaces that were not conducive to learning (i.e., did not have a dedicated room), were often noisy and not very bright, and had to be shared.

Although our study reveals important aspects of middle school students' perceptions and experiences of distance learning in Northwestern Italy during the lockdown period, it has some limitations. One of them is that we did not use qualitative data analysis software that may have led to further understanding of students' responses. We are also aware that our study only reflects the students' views. It would have been interesting to collect teachers' views on the same questions to understand how similar or different these two key components of the school community experienced online learning/teaching during this time.

5. Conclusions

During the 2020 school closure, students faced many unexpected challenges that redefined their interactions with teachers and classmates. In our study's findings, students distinguish between what they liked most and what they liked least or found most difficult about distance learning.

They tell us how their learning experience was affected by the novelty of using electronic devices, which took on a new meaning: from an entertainment tool to a learning medium. Despite the ambivalence associated with the use of digital tools, students report the excitement associated for many with the opportunity to acquire technological skills needed in the world in which we live. However, what inequities lie behind the inability to guarantee all students the same digital tools? The learning of digital skills and the normal continuation of educational and training activities are still tied to the possession and availability of tools that are not always accessible to all students. Not all schools are able to support families who do not have access to digital tools, further deepening the social divide.

During this time, important aspects of life such as time, home, and relationships at school, as well as relationships with the school itself, also took on new meaning. Most students recognized how important it was for them to physically go to school and interact with teachers and classmates. Their responses and comments indicate that while they appreciated the extra time they could spend at home, they were also concerned about the consequences of fewer hours of lesson time and homework. However, it was a complex period that gave students, even the youngest, a greater awareness of themselves and their role as students, as well as an understanding and appreciation of the intrinsic educational value of the school environment. Students soon realized that following lessons from home is not the same as learning at school. The context and relationships associated with this type of learning were compromised by social distancing.

The results of the present study illustrate how communication via a device can impact not only student learning, both positively and negatively, but also perceptions of relationships. In students' perceptions, all of the difficulties they faced during the lockdown period emerged, but so did the positive aspects, such as the value of relationships, both with peers and adult caregivers, including the growing interest in skills related to the use of new technologies. For these reasons, it is desirable to continue to actively support school-based education that promotes technological skills among teachers and students. At the same time, it is important to foster social-emotional skills in young people so that they can develop better communication skills and understanding.

The findings of our study are a call to action for schools to actively seek strategies that promote the relational health and well-being of students and teachers, especially in challenging times such as those we are currently experiencing.

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Data Availability Statement: The data presented in this study are available upon request from the SE-CREA research group at the University of Turin. Data access requests can be made by contacting Emanuela Rabaglietti at emanuela.rabaglietti@unito.it.

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CHAPTER 5. Second article (Appendix B)

Title: *The relationship between students' Sense of Belonging, Grit and Anxiety during pandemic times*

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The Relationship between Students' Sense of Belonging, Grit and Anxiety during Pandemic Times

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Abstract: Covid-19 restrictions in Italy have significantly reduced the 'in-presence' time spent with classmates and teachers. As a result, this new way of relating to one another has challenged many students by increasing anxiety and depression. In such reality, protective factors such as sense of belonging (SB) and Grit (GR) can reduce anxiety (ANX). Considering the pandemic context, the scope of this study is to explore the relationship between SB/GR and ANX, as a risk factor and to understand whether the relationship between these variables changes based on students' grade level (GL): middle school (MS) versus high school (HS). For this purpose, a total of 451 students from North/Central Italy, 71% F (M=15.07, ± 2.46), of which 266 from HS, answered an online questionnaire in Spring 2021. Data was analyzed by doing a correlation analysis, difference between groups based on GL and hierarchical regression with SPSS 27. Results for the correlation analysis confirm that SB and GR are positively related; when controlling for differences in GL via t-test analysis, SB and GR are higher for MS. When measuring the SB/GR (Panorama Education, 2016) and its impact on the state of ANX (Spielberger et al., 1983) via the hierarchical regression, SB/GR decrease while ANX increases in particular for HS students. These results highlight that anxiety has had a greater impact specially on HS students. For these reasons we encourage schools to create environments in which they find strategies, as a community, to assist students in developing a sense of belonging and grit.

Keywords: *sense of belonging; grit; anxiety; high and middle school students.*

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Introduction

The reduction of the 'in-presence' time spent with classmates and teachers due to the Covid-19 pandemic restrictions (Hertz et al., 2021; Kishida et al., 2021; UNICEF, 2021) has led to a new way of relating to each other. Because school is an important place for children and adolescents to learn how to relate to themselves and others, and where they develop an important part of their identity through these interactions (Rabaglietti & Ciairano, 2015), not being able to do so has been challenging for many students, leading to an increase in anxiety and depression (Edgcomb et al., 2021; Hawrilenko et al., 2021; Petretto et al., 2020; Pich et al., 2021; Viner et al., 2021). Under these circumstances, socio-emotional skills may act as protective factors by reducing some of these risk factors (Beccaria et al., 2022; Cefai et al., 2018; Freudenberg & Ruglis, 2007). In this study, we focus on two of these factors, sense of belonging and grit, and examine how they relate to anxiety as a risk factor. More specifically, we aim to examine how one of the measures of peer relationships in adolescence (SB) along with a student's agentive role (GR), is related to a student's internalized state of discomfort (ANX).

Specifically, this study has two objectives:

Ob1: to examine the relationships between the variables, SB and GR, which are considered protective factors, and ANX, which is considered a risk factor, in a sample of adolescents one year after the beginning of the pandemic.

Ob2: to examine whether these relationships between the variables change according to grade level (GL), i.e. Middle School (MS) and High School (HS).

Literature Review

Sense of Belonging is a protective factor that can help adolescents feel safe in school and feel that they are a meaningful part of the school and class group (Craggs & Kelly, 2018; Uslu & Gizir, 2017): Does the student feel that it is possible to express him/herself without being judged or ridiculed? Does the student feel that others are genuinely interested in the student's background and heritage? Does the student feel included in various activities? According to Craggs & Kelly (2018), there are four ways to

understand a sense of belonging: “...*feeling safe and secure in the educational setting; being able to form positive relationships with staff and peers; feeling able to express individual identity (enabling pupils to feel safe to be themselves) and having opportunities to experience a sense of group membership*” (p.12). All of these interpretations are related to the student's background and identification as a person (Verhoeven et al., 2019), as well as how valued they feel by their community. In Hamm & Faircloth's (2005) study, the weight of friendship is examined as a factor contributing to the sense of belonging. They explain that the presence of this emotional bond, manifested through friendship, interacts with an increased interest in school, which brings not only academic but also non-academic benefits. Such a bond leads to a sense of inclusion that “makes shared activities very enjoyable” and, as a result, can reduce students' anxiety. Similarly, other protective factors, such as grit, can also improve a student's well-being. Duckworth et al. (2007) define it as “*perseverance and passion for long-term goals*” (p. 1087). The school context can be a place where students are encouraged to set goals and learn to sustain them, especially if this type of mastery is modeled in school and students perceive it as such (Park et al., 2018). For example, when students are more committed to their studies, their academic engagement also increases (Tang et al., 2019). In addition, consistency and persistence in pursuing goals may be viewed positively by a social group and thus increase popularity among peers (Lan, 2020).

When any of these social-emotional skills, particularly sense of belonging and grit, are low, anxiety can increase (Arslan, 2021; Cefai et al., 2018; Lan & Radin, 2020; Pendergast et al., 2018) and affect their school performance (Mazzone et al., 2007), general well-being and relationships with others (Henker et al., 2002). As a consequence, school closures and quarantines resulting from the government's Covid-19 restrictions have further increased anxiety levels amongst adolescents (Hertz et al., 2021; Pieh et al., 2021).

Methodology

Participants

A total of 451 students from North/Central Italy, 71% F (M=15.03, ± 2.45), including 258 from high school and 193 from middle school, answered an online questionnaire in Spring 2021. Consent to participate was obtained from both students and their parents/guardians.

Data collection and analysis

The online questionnaire included a socio-demographic section and 13 scales. For this study, we analyzed the scales that collected data on sense of belonging, grit, and anxiety. Below is a description of each scale:

The Panorama Education scale (2016) on *Sense of belonging* includes 5 items on a Likert scale and it measures "how much students feel they are valued members of the school community." The answer options range from 1 to 5 with a minimum score of 5 to a maximum score of 25. There is one type of answer option ranging from "not at all" to "always".

The Panorama Education scale (2016) on *Grit* includes 5 items on a Likert scale and measures "how well students are able to persevere through setbacks to achieve important long-term goals." The answer options range from 1 to 5 with a minimum score of 5 to a maximum score of 25. The answer options range from "not at all" to "always" except for the last item where answer options range from "not at all likely" to "very likely". For these two scales, Sense of belonging and Grit, we used the translated version of the Panorama Education scales which have been adapted/validated by Lattke, De Lorenzo, Settanni & Rabaglietti (in press).

The STAI anxiety scale consists of 20 items and measures a person's current state of mind, independent of their tendency to be anxious or not. It is based on a 4-point Likert scale. The total score for the STATE-S scale is calculated by adding the scores of all responses. For all items, the response options are "not at all," which is worth one point, "somewhat," which is worth two points, "quite a bit," which is worth three points, and "very much," which is worth four points. This scoring is reversed for items number 1, 2, 5, 8, 10, 11, 15, 16, 19 and 20. "The total score is between 20 and 80 with a threshold predictive value of anxiety symptomatology placed at 40. It is also possible to define the level of severity: from 40 to 50 mild form, from 50 to 60 moderate, > 60 severe" (Barisone et al., 2004). We used the Italian version by Pedrabissi and Santinello (1989).

Data was then analyzed (using SPSS 27) by performing a correlation analysis based on grade level and a t-test to assess the differences between middle and high school students for the three variables (SB, GR and ANX). We then conducted a hierarchical regression controlling for any differences between middle and high school students, and then measured SB/GR

(Panorama Education, 2016) and its effects on the state of ANX (Spielberger et al., 1983).

Results

Descriptive analysis

Information on descriptive statistics for the total sample and the sub-samples, Middle School and High School (Table 1).

Tab. 1 Descriptive Analysis

Variable	Sample	N	Min	Max	Mean	SD	skewness	kurtosis
Grit	Tot	451	6	25	17,64	3,38	-0.38	0.01
	MS	193	11	24	18,28	2,90		
	HS	258	6	25	17,16	3,62		
Sense of Belonging	Tot	451	5	25	15,37	4,39	-0.10	-0.61
	MS	193	5	25	16,72	4,21		
	HS	258	5	25	14,38	4,26		
Anxiety	Tot	451	23	79	50,00	10,41	0,48	-0,12
	MS	193	27	62	46,49	5,74		
	HS	258	23	79	52,72	12,18		

Note: MS= Middle school students; HS= High school students

Source: Authors' own conception

Correlations

The Pearson correlation analysis (Table 2 and Table 3) shows that there is a positive relationship between GR and SB for both grade levels. For MS students, ANX does not correlate significantly with GR and SB (GR: $r=0,060$, $p=0,404$; SB: $r=-0,028$, $p=0,697$), while for HS students, two negative correlations emerge.

Tab. 2 Correlations Analysis for Middle School

Variable	Sample	N	1.	2.	3.
1.Grit	MS	193		0,202**	0,060
2.Sense of Belonging	MS	193			-0,028
3.Anxiety	MS	193			

** $p<0,001$

Source: Authors' own conception

Tab. 3 Correlations Analysis for High School

Variable	Sample	N	1.	2.	3.
1.Grit	HS	258		0,295**	-0,276**
2.Sense of Belonging	HS	258			-0,303**
3.Anxiety	HS	258			

**p<0,001

Source: Authors' own conception

Differences between Middle School (MS) and High School (HS) students

Statistically significant differences emerged between MS and HS students (analysis conducted with Welch's correction): Grit [F(449)=12,53; p<0,001] and Sense of Belonging [F(449)=33,91; p<0,001] were higher for MS students; Anxiety [F(449)=43,27; p<0,001] was higher for HS students.

Hierarchical Regression

A three-step hierarchical multiple regression was conducted with ANX as the dependent variable. Grade Level was included in the first step of the regression to control the impact of the students' age. GR was entered at step two and SB at step three.

Table 4. Hierarchical Regression on Anxiety of the total sample (n=451)

	Independent Variable	β	t	R2adj	ΔR^2	F(gdl)
Step 1	Grade Level	0,296**	6,578	0,086	0,088	43,27 (1,449)
Step 2	Grade Level	0,265**	5,910	0,119	0,035	31,51 (1,448)
	Grit	-0,191**	-4,255			
Step 3	Grade Level	0,225**	4,954	0,146	0,028	26,58 (1,447)
	Grit	-0,145**	-3,175			
	Sense of Belonging	-0,180	-3,846			

**p<0,001

Source: Authors' own conception

The hierarchical multiple regression (Table 4) revealed that at step one, Grade Level contributed to the regression model, [$F(1,149) = 43,27$; $p < 0,001$] and accounted for about 8% of the variation in Anxiety. Introducing GR produced different outcomes in the second step explaining an additional 3,5% of variation in ANX [$F(1,148) = 31,51$; $p < 0,001$]. Since Grade Level ($\beta = 0,265$; $p < 0,001$) continues to be a significant predictor of ANX, the predictive contribution of GR ($\beta = -0,191$; $p < 0,001$) was added. Adding SB in the third step explained an additional 2,8% of the variation in ANX [$F(1,147) = 26,58$; $p < 0,001$]. In detail, Grade Level ($\beta = 0,225$; $p < 0,001$), GR ($\beta = -0,145$; $p < 0,001$) and SB ($\beta = -0,180$; $p < 0,001$) are significant predictors of ANX.

Discussions and limits

The results of our study show that the relationship between sense of belonging and grit is positive, whereas the relationship between these two protective factors and anxiety is negative.

These results confirm that sense of belonging and grit are positively related as social-emotional skills, and furthermore, they can act as protective factors by reducing situations of discomfort such as anxiety (Arslan, 2021; Minnesota state department of Education, 2019; Oriol et al., 2017).

The difference between groups shows that sense of belonging and grit are higher in students from middle school than in students from high school, who have fewer socio-emotional resources, especially considering that these skills are not promoted in the Italian school context in a systemic way (Cefai et al., 2018). Moreover, we find that grade level predicts anxiety (the higher the grade level, the more anxious older students become). As the two protective variables are introduced, grade level becomes less important. For this reason, we can assume that working on the sense of belonging and grit can attenuate the influence of age on inducing anxiety.

One possible explanation for the increase in anxiety in high school students is that the 'in-presence' school attendance for these students was not guaranteed in Italy during the 2020/2021 school year when compared to middle school students. As a result, high school students spent more online hours of instruction than middle school students (Mascheroni et al., 2021); this situation worsened when taking into account the lockdown experience of the previous year (Commodari & La Rosa, 2021), i.e.: cumulatively high school students spent more time physically isolated from their classmates (Buonsenso et al., 2021). This scenario coupled with the change in the mode of instruction (König et al., 2020) together with school closures in the

previous year, as well as quarantine periods in the 2020/2021 school year which were based on the rate of infection in classes (MIUR, 2020), may have caused students to lower their academic expectations (Save the Children, 2021) and feel less motivated to persevere in the face of the difficulties at the time. Their sense of belonging may have also been affected by the uncertainty of not knowing how long they would be in school before the class was asked to follow online lessons from home once the class had reached a maximum number of infections (Buonsenso et al., 2021). The Covid pandemic, as Hader et al. (2020) noted, brought the VUCA (Volatile, Uncertain, Complex, and Ambiguous) experience to an extreme, and although Hader's article refers to the level of teacher preparation for these circumstances, this reality applies to students as well. Furthermore, several studies have shown that anxiety was not only prevalent prior to the pandemic (Hawrilenko et al., 2021; Pelissier et al., 2021), but that these mental health problems have continued to increase with the onset of the pandemic, particularly among adolescents (Hawrilenko et al., 2021). In this sense, Covid-19 can be considered to have affected the spontaneity that used to exist when it came to socializing and making decisions about when, where, and how to meet (Tosolini & Venturi, 2020).

A possible limitation of our study is the difference in sample size between middle and high school students. Our sample is mostly from the North/Central regions of the country therefore it would be interesting to extend this research to MS and HS students in other regions. In future studies, we would like to take into account any gender differences and, given that Italy is becoming more multicultural, to examine the extent to which these protective factors are more or less pronounced amongst students with a different nationality or ethnic background.

Conclusion

The results of our study contribute to the current literature by confirming that the Covid-19 pandemic has led to an increase in anxiety, particularly among older adolescents. School closures and quarantines although called upon to safeguard the public's health were detrimental for adolescents' mental health, especially for those who spent more time learning from a distance. At the same time, this study confirms that a sense of belonging and grit are important protective factors, within the school context, that may reduce the level of anxiety among adolescents themselves. Furthermore, we could argue that these protective factors have acquired an even greater importance in light of the VUCA world we live in. It is

important that schools, places where students spend many hours of their lives, create spaces to discuss these skills and find strategies to promote them, such as training for teachers and students; this will ensure that students have the opportunity to develop these skills to have a better chance of protecting their mental health and overall well-being and face their future adult lives with more serenity.

Declaration of Conflicting Interest

The Author(s) declare(s) that there is no conflict of interest.

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CHAPTER 6. Third article (Appendix C)

Title: *PE-IV (Panorama Education-Italian version): the adaptation/validation of 5 scales, a step towards a SEL approach in Italian schools*

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PE-Iv (Panorama Education-Italian version): the adaptation/validation of 5 scales, a step towards a SEL approach in Italian schools

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Implementing a Social and Emotional Learning (SEL) approach in school requires monitoring certain skills. As awareness of SEL increases in Italy, it is necessary to provide instruments to monitor these skills within a systemic approach. This study presents the cultural adaptation/validation of 5 scales from Panorama Education, which are widely used in school districts in the United States, to the Italian middle/high school context: Grit, Sense of Belonging, Self-Management, Social Awareness, and Self-Efficacy. After cultural adaptation, 709 middle/high school students answered an online questionnaire (2021). Psychometric properties showed good internal consistency and confirmatory factor analysis showed a good fit index. The differences in gender and grade level support the validity of the instrument.

KEYWORDS

SEL, school well-being, adaption/validation, measuring socio-emotional skills, adolescents

Introduction

Since the 1990s, social and emotional skills have been continuously studied in school contexts both in the United States (Elias et al., 1997; Jones and Bouffard, 2012; Kautz et al., 2021) and in Europe (Cottini and Morganti, 2015; Cefai et al., 2018). These skills are also known by many names worldwide: from non-cognitive skills, 21st Century Skills to non-academic skills and employability skills (Jones et al., 2019). In Italy, they are mainly taught under the umbrella of social and emotional education and social training (Cefai et al., 2018). Teaching and learning these skills in a systemic way within a school context is often referred to as social emotional learning (SEL) which benefits students' academic performance and relationships (Payton et al., 2000; Jones and Bouffard, 2012). SEL combines theories from different models (Payton et al., 2000) which are mostly inspired on the social-emotional dimension such as Emotional Intelligence Theory (Goleman, 1995; Mayer and Salovey, 1997), Social Information

Processing (Crick and Dodge, 1994) and cognitive/behavior change such as problem behavior theory (Jessor, 1991), and social cognitive theory (Bandura, 1998) amongst others. SEL is defined as how children and adults learn to understand and manage emotions, set goals, show empathy for others, build positive relationships, and make responsible decisions (Elias et al., 1997). When implemented as a whole-school approach, SEL can help children and youth and those in relationship with them improve their well-being (individually and as a class) by promoting academic achievement, problem-solving skills, social inclusion in school, and a reduction in bullying and antisocial behavior, leading to improved school climate (Greenberg et al., 2003; Durlak et al., 2011). In other words, promoting socio-relational skills can help improve students' relationships with peers and teachers and increase their satisfaction with the school experience by increasing their academic engagement (Durlak et al., 2011), thereby reducing school dropout (Wang et al., 2016) especially after 2 years since the start of the pandemic which has profoundly changed the way we understand schooling (Lattke et al., 2020). Moreover, the earlier in age this approach is put into practice, the sooner children and youth are able to become more self/socially aware and self-determined (Davidow et al., 2016; Denham, 2018; De Lorenzo et al., 2021).

A SEL approach is part of a health promoting school (Turunen et al., 2017) which means it is necessary to engage the different components of the school community (School leadership, teachers, non-teaching staff, students and parents) in order to have a shared understanding of the importance of well-being and health (CASEL, 2017; Cefai et al., 2018; Bada et al., 2019; Velasco and Meroni, 2021). And, although measures to promote SEL are widespread at the European level, to our knowledge there are still few instruments in Italian schools which regularly monitor SE skills with a SEL approach particularly amongst the adolescent middle and high school populations, as is the case in many school districts in the United States (Kendziora and Yoder, 2016). For these reasons, we propose the cultural adaption/validation to the Italian context of 5 scales which measure some of these skills: Self-efficacy, Self-Management, Grit, Sense of Belonging and Social Awareness. As reported by a number of studies amongst which Durlak et al. (2010) and Cefai et al. (2018), these skills are associated amongst themselves. The scales we adapted were developed by Panorama Education, a US-based research organization founded in 2012 which assists schools in monitoring SEL. We believe their scales can be useful in the Italian context, where -as mentioned earlier- the awareness on the importance of these skills is growing but has not yet become systemic in the schools (Cefai et al., 2018).

In Italy, the Ministry of Education considers social-emotional skills (SE) as important as academic skills (MIUR, 2018). Some SE skills are included in social and civic competencies (i.e., autonomy, responsibility, cooperation, and readiness to learn) (European Communities, 2007). In

educational environments where these skills are fostered and practiced, students advance from one grade level to the next, graduate from high school (Kautz et al., 2019), and have a better chance of becoming employable after graduation (Zins and Elias, 2007; Cefai et al., 2018). It is therefore incumbent upon schools to determine how to ensure that students achieve these educational, academic, and social goals by the end of each school cycle (MIUR, 2018). In spite of this, Italy is the fourth European country with the highest school dropout rate (OECD, 2019; De Luca et al., 2020; ISTAT, 2020; EUROSTAT, 2021) and with the largest "Not in Education, Not in Employment, Not in Training" population (NEET) on the continent (EUROSTAT, 2021). Based on a number of studies, if SEL is implemented as part of a whole-school approach, it can reduce dropout rates (Durlak et al., 2010; Downes, 2011; Montero-Sieburth and Turcatti, 2022). As a result, we could argue that a systemic SEL approach could be part of the solution, by strengthening students' social and emotional skills while ensuring that they have the relational tools necessary to address some of life's challenges and reduce social inequities, therefore resulting in an improved state of well-being (Freudenberg and Ruglis, 2007).

One of the most important components of a systemic SEL approach is monitoring, as it can help the school community understand how best to help its students acquire the skills necessary to address the various challenges students may face in life, whether on a personal or professional level (Jones and Bouffard, 2012; Duckworth and Yeager, 2015). To facilitate this process, we propose to consider scales developed by Gehlbach and his colleagues and which are among the most widely used in over 400 school districts in different US states (Panorama Education, 2016).

Panorama scales were developed based on the concept of SEL. Their scales are brief and use simple, clear, and easy-to-read language; they have been validated on samples of middle and high school students who come from geographic areas in the Southwest and Southeast of the United States, areas of the country known for high cultural and ethnic diversity (West et al., 2018a; RAND Corporation, 2019). Given the recent history of migration to Italy and the fact that part of the philosophy of SEL is to contribute to inclusion (Elias et al., 1997), this is an important element that could also help educators better understand the needs of youth from non-Italian backgrounds and create a more inclusive environment in which there is more openness to understanding these differences.

These scales are not divided by age but by grade level. For example, one set of questions is aimed at children in grades 3 to 5, while another is aimed at adolescents in grades 6 to 12. Our study focuses on the latter. Moreover, Panorama scales were developed in the age of digital natives, and it is hoped that the data obtained will help better capture the needs and perceptions of younger people. Although there are scales that measure the constructs we propose for the Italian school context, they are not part of a battery of instruments that measure SE skills within a SEL

approach in school. Therefore, we expect that adapting these scales may help facilitate the implementation of a systemic SEL approach in Italy.

In this study we describe the cultural adaptation process and the evaluation of the psychometric properties of 5 of Panorama Education scales for which we performed inferential statistical analysis such as confirmatory and reliability analysis in order to adapt them to the Italian context.

Materials and methods

Sample and procedure

Our research team submitted a request to the Bioethics Committee of the University of Turin and subsequently obtained permission (Prot. No. 202854) to conduct the research on which this article is based. The research team then contacted various schools throughout the country, of which a total of three middle schools and eight high schools agreed to participate in our study. After the schools agreed to participate in the study, we sent a letter to the families and students explaining the purpose of the study, possible implications, and the time needed to complete the questionnaire (20 min). Finally, in order for students to participate in the online questionnaire, parents/guardians and students had to give their consent. A total of 709 students (27% from middle school and 73% from high school), mainly from northern and central Italy, completed a self-administered questionnaire in Spring 2021. The majority were female (75.2%) with a mean age of 15.44 years ($SD = 2.18$; $min = 11$; $max = 19$).

Instrument

Each of the scales used in this study was developed by [Panorama Education \(2016\)](#) specifically for middle and high school students. These scales can be found in the Panorama Social-Emotional Learning Survey User's Guide (n.d.). The scales in this survey monitor student and teacher SE skills. For the purpose of this study, we focus only on 5 of these skills specifically for students. The guide includes "recommended" and "supplemental scales," all 5 scales in this study are classified as "recommended."

Below is a description of each of these 5 Likert scales which have a 5-point-score system:

Grit (5 items) measures "how well students are able to persevere through setbacks to achieve important long-term goals." The answer options range from 1 to 5 with a minimum score of 5 to a maximum score of 25. The answer options range from 'not at all' to 'always' except for the last item in which the answer options range from 'not at all likely' to 'very likely'.

Sense of belonging (5 items) measures "how much students feel they are valued members of the school community." The answer

options range from 1 to 5 with a minimum score of 5 to a maximum score of 25. There is one type of answer option which ranges from 'not at all' to 'always'.

Social Awareness (8 items) measures "how well students consider and empathize with the perspectives of others." The answer options range from 1 to 5 with a minimum score of 8 to a maximum score of 40. There is one type of answer option which ranges from 'not at all' to 'always'.

Self-efficacy (5 items) measures "how much students believe they can be successful in achieving academic outcomes." The answer options range from 1 to 5 with a minimum score of 5 to a maximum score of 25. There is one type of answer option which ranges from 'not at all' to 'always'.

Self-Management (10 items) measures "how well students manage their emotions, thoughts, and behaviors in different situations." The answer options range from 1 to 5 with a minimum score of 10 to a maximum score of 50. There is one type of answer option which ranges from 'almost never' to 'almost always'.

Validation measures

Participants' demographic survey

The questionnaire also included a sociodemographic section in which participants were asked to provide information about their age, gender, and grade level.

Qualitative and quantitative data analysis

The qualitative data analysis of the 5 original Panorama Education scales took place after culturally adapting them to the Italian language context; for this purpose we used the guidelines of [Beaton et al. \(2000\)](#). After data collection, the quantitative data analysis took place in two steps:

1. For all 33 original items of the 5 scales, we performed descriptive statistics, a reliability analysis (Cronbach's Alpha) before structural validation, and a confirmatory factor analysis. The latter analysis resulted in a new version of 27 items of the 5 scales.
2. We then performed a new reliability analysis, a correlation analysis between the constructs and a *t*-test to observe any differences in terms of gender and grade level.

Results

Cultural adaptation

Cultural adaptation process according to [Beaton et al. \(2000\)](#) guidelines:

Forward translation

Panorama's scales were first translated into Italian by three different native Italian speakers who teach in English at all levels of education, including middle and high school. Our research team then discussed the different versions and agreed on the version that was closest to the original version based on semantics and language comprehension.

Backward translation

The questionnaire was then back-translated into English by two different native English speakers who were not familiar with the original English version of the questionnaire or the constructs we were studying. The results were again discussed by our research team, this time by comparing the original version, the Italian versions, and the new English versions. Our criteria for discussion was based on the semantic and idiomatic meaning of the questions to ensure that both literal and cultural translation were taken into account. Once we decided on a final version, we pre-tested all 5 scales.

Pre-test

A total of 30 students were invited to the Department of Psychology of the University of Turin to respond to the adapted version of the online questionnaire. Before completing the questionnaire, students were asked to note the time it took to complete it and to point out any problems they encountered. Students were then invited to participate in a focus group to discuss the various scales and any difficulties with the language. A total of 3 separate focus groups were conducted online, each lasting approximately 2h; each focus group consisted of 10 students, balanced by gender, ranging in age from 12 to 16 years old and from second year of middle school to second year of high school.

During the focus group, we discussed each item of the questionnaire with the students to ensure that the wording, meaning, and order of the various scales were clear, including the time it took to complete the questionnaire. On average, students indicated that it took them between 10' and 15' to complete.

Discussion of the results

A team of 7 researchers (one methodologist, one translator, one linguist, one teacher, one developmental psychologist professor and two researchers who are experts in school psychology), based on each person's field of expertise, discussed the results of each focus group in order to bring together a final result which was useful in creating the final version of each scale. Throughout the process, we were in contact with researchers from Panorama Education, who were readily available to provide answers to questions we had as we adapted the scales, such as when the mode of instruction was changed to online learning due to the COVID-19 pandemic.

Final version

After completing the final version, we administered the questionnaire to high school and middle school students in April/May 2021. We then analyzed the data from the student responses. For this purpose, we performed descriptive statistics, confirmatory

factor analysis to check whether all items worked in the Italian context, reliability test (Cronbach's alpha), correlation analysis between all scales, and t-tests for gender and grade level.

Descriptive statistics

The items were analyzed using descriptive statistics based on the data collected (mean and SD) as well as skewness and kurtosis (see Table 1).

Confirmatory factor analysis

To further investigate the psychometric value of Panorama Education's scales in the Italian context, we examined the factorial

TABLE 1 Descriptive statistics.

Factor	Items	Mean (*)	SD	Skewness	Kurtosis
Grit	GR_1	3.46	1.004	-0.450	-0.033
	GR_2	3.84	0.979	-0.654	-0.069
	GR_3	3.64	1.057	-0.678	-0.065
	GR_4	3.26	0.980	-0.241	-0.474
	GR_5	4.04	0.946	-0.797	0.114
Sense of belonging	SB_1	2.82	1.092	0.022	-0.766
	SB_2	2.92	1.098	-0.003	-0.863
	SB_3	3.84	1.043	-.861	0.187
	SB_4	3.00	1.052	-0.108	-0.707
	SB_5	3.39	1.264	-0.412	-0.889
Social awareness	SA_1	3.89	0.869	-0.635	0.246
	SA_2	4.07	0.908	-0.954	0.638
	SA_3	4.09	0.951	-1.162	1.333
	SA_4	3.40	0.822	-0.222	0.154
	SA_5	2.75	1.075	-0.017	-0.689
	SA_6	3.50	0.990	-0.319	-0.427
	SA_7	3.89	0.916	-0.556	-0.255
	SA_8	3.45	1.016	-0.492	-0.098
Self-management	SM_1	3.70	1.163	-0.670	-0.313
	SM_2	4.13	0.937	-0.961	0.394
	SM_3	3.29	1.228	-0.297	-0.781
	SM_4	3.22	0.974	-0.424	0.078
	SM_5	3.78	0.925	-0.620	0.317
	SM_6	3.05	1.195	-0.100	-0.783
	SM_7	3.93	1.039	-0.929	0.453
	SM_8	4.60	0.665	-1.647	2.317
	SM_9	4.41	0.736	-1.333	2.301
	SM_10	3.57	1.131	-0.566	-0.316
Self-efficacy	SE_1	4.01	1.010	-1.018	0.664
	SE_2	3.36	0.949	-0.597	0.267
	SE_3	3.42	0.874	-0.378	-0.137
	SE_4	3.36	0.983	-0.370	-0.206
	SE_5	3.01	0.999	-0.221	-0.740

(*) The range of the total scores for each of the items is from 1 to 5.

structure of the scales by means of a confirmatory factor analysis (CFA) using Jamovi (version 1.6) statistical software. Following Kline (2015) the model fit was evaluated by using the following fit indexes (χ^2 , CFI, TLI, RMSEA and SRMR). We first tested the fit of the data based on the dimensional model (Model 1) of 5 correlated dimensions according to one of the possible scale selections from the Panorama Social-Emotional Learning Survey. The fit indexes ($\chi^2=3,809$, $df=495$, CFI=0.547, TLI=0.517, RMSEA=0.0940, SRMR=0.08) were inadequate, furthermore, 6 items showed poor factor loadings (lower than 0.40; Table 2). The items were the following:

Grit #1: “How often do you stay focused on the same goal for several months at a time?”

Social Awareness #4: “How well did you get along with students who are different from you?”

Social Awareness #5: “How clearly were you able to describe your feelings?”

Self-Management #6: “How often did you remain calm, even when someone was bothering you or saying bad things?”

Self-Management #8: “How often were you polite to adults?”

Self-Management #9: “How often were you polite to other students?”

As a result, the research team qualitatively assessed these items based on their relevance in measuring the constructs being tested.

TABLE 2 Factor loadings.

Factor	Items	Estimate	SE	Z	p	
Grit	GR_2	0.567	0.0409	13.86	<0.001	
	GR_3	0.582	0.0441	13.19	<0.001	
	GR_4	0.614	0.0408	15.06	<0.001	
	GR_5	0.495	0.0393	12.57	<0.001	
	Sense of	SB_1	0.799	0.0372	21.51	<0.001
Belonging	SB_2	0.419	0.0410	10.23	<0.001	
	SB_3	0.673	0.0371	18.15	<0.001	
	SB_4	0.854	0.0342	24.95	<0.001	
	SB_5	1.087	0.0403	27.00	<0.001	
	Social awareness	SA_1	0.515	0.0367	14.02	<0.001
SA_2		0.471	0.0390	12.08	<0.001	
SA_3		0.427	0.0411	10.40	<0.001	
SA_6		0.557	0.0423	13.17	<0.001	
SA_7		0.516	0.0400	12.90	<0.001	
SA_8		0.499	0.0431	11.58	<0.001	
Self-management		SM_1	0.673	0.0434	15.51	<0.001
		SM_2	0.609	0.0339	17.95	<0.001
	SM_3	0.682	0.0453	15.03	<0.001	
	SM_4	0.657	0.0342	19.24	<0.001	
	SM_5	0.560	0.0341	16.42	<0.001	
Self-efficacy	SM_7	0.384	0.0414	9.26	<0.001	
	SM_10	0.379	0.0462	8.19	<0.001	
	SE_1	0.674	0.0357	18.85	<0.001	
	SE_2	0.693	0.0325	21.35	<0.001	
	SE_3	0.665	0.0293	22.65	<0.001	
	SE_4	0.774	0.0325	23.81	<0.001	
	SE_5	0.523	0.0364	14.35	<0.001	

Since these items do not change the semantic properties of the constructs, we eliminated them based on the results of the CFA (Model 1). A new CFA (Model 2) was conducted, resulting in improved fit indexes ($\chi^2=590$, $df=277$, CFI=0.948; TLI=0.934; RMSEA=0.0398, SRMR=0.04). The resulting model is shown in Figure 1.

Reliability statistics (Cronbach’s alpha)

After performing a CFA, we measured the internal consistency using Cronbach’s Alpha of each of the new scales. Based on De Vellis (2003), we can see that the values reported on Table 3 are good.

Spearman correlations between PE-Iv scales

Table 3 shows that the correlations between all constructs is positive. The associations with the highest values are between Self-Efficacy and Self-Management, between Self-Efficacy and Grit and between Self-Management and Social Awareness.

Difference between groups

In order to investigate the validity of the criterion, differences in the means between males and females and between middle and high school students were tested. Means between gender groups (Table 4) were found to be significant especially for the Social Awareness [$t(707)=5.105$, $p < 0.001$] and Self-Management [$t(707)=2.918$, $p < 0.05$] scales for female participants. In the case of grade level (Table 5), we see instead that the Self-Efficacy [$t(707)=2.893$, $p < 0.05$] and Sense of Belonging [$t(707)=2.750$, $p < 0.05$] scales (which kept the same number of items as in Panorama Education) were significant for middle school students, while Social Awareness [$t(707)=-3.513$, $p < 0.001$] was significant for high school students.

Discussion

Monitoring socio-emotional skills is a concrete way for schools to meet the social-emotional needs of their students (Minnesota State Department of Education, 2019). Although preparing students with these skills is considered important by the Italian Ministry of Education (MIUR, 2018), there is currently no systemic SEL approach at school that includes regular monitoring of these skills. This study describes the process of the cultural adaptation of 5 scales (commonly used in middle and high schools in the United States) to the Italian context. These scales were tested in Italian middle (11–14 year-old students) and high schools (15–19 year-old students) and then the data were analyzed. As far as we know, this is the first time that Panorama Education scales have been translated into Italian and furthermore, it is the first time they have been used with

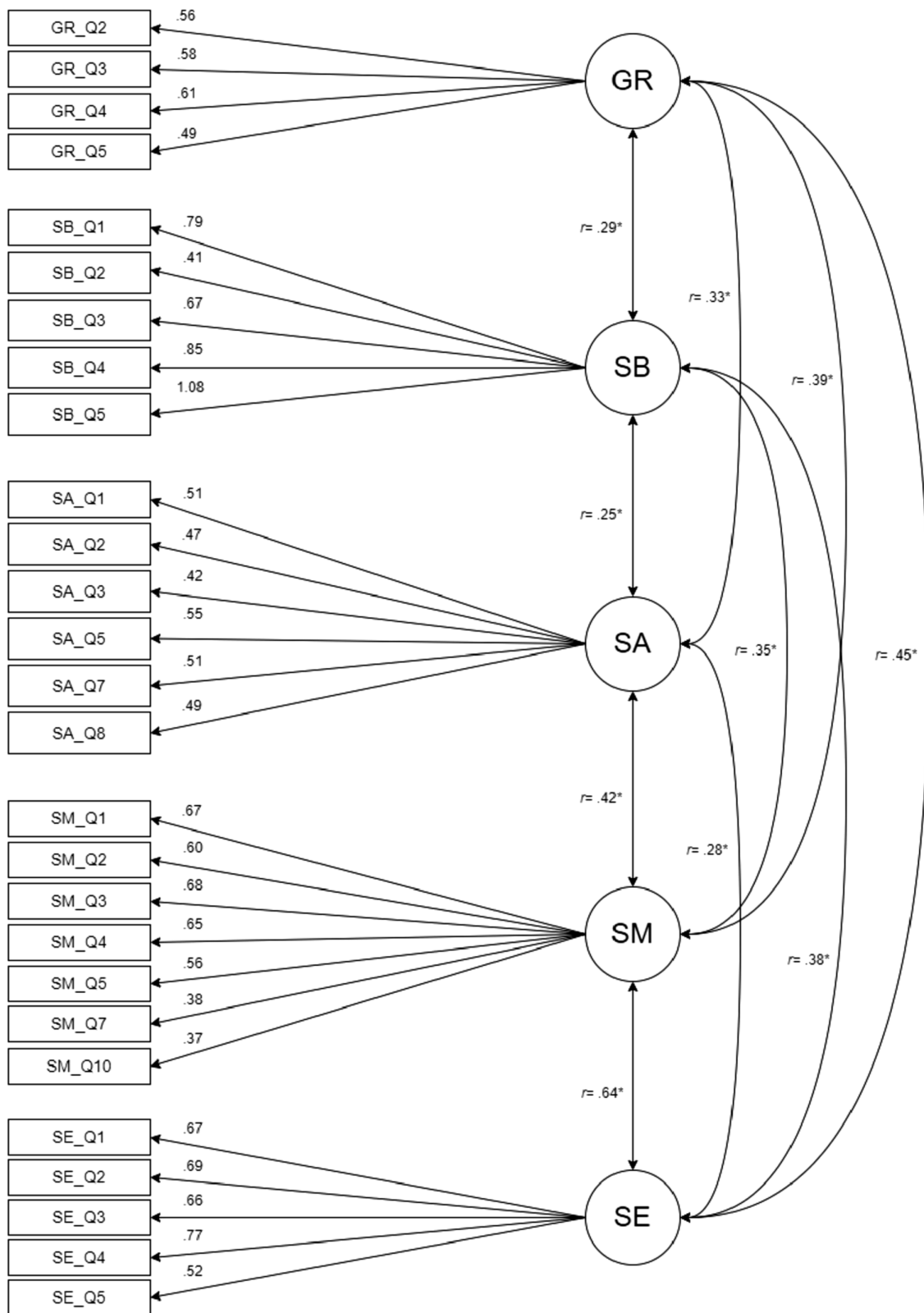


FIGURE 1 CFA with factor loadings from model 2 (5 factors, 27 items). Loadings are standardized. Rectangles indicate measured variables and circles represent latent constructs. Note the item numbering is retained from the original 33-item scale. * $p < 0.001$. GR, grit; SB, sense of belonging; SA, social awareness; SM, self-management; SE, self-efficacy.

TABLE 3 Correlations between scales.

Scale	1	2	3	4	5	Alpha of Cronbach
Grit						0.659
Sense of belonging	0.292**					0.806
Social awareness	0.335**	0.252**				0.747
Self-management	0.394**	0.351**	0.428**			0.739
Self-efficacy	0.456**	0.389**	0.281**	0.642**		0.821

** $p < 0.001$.

TABLE 4 Difference between groups.

	Gender	N	Mean	SD
Grit	F	533	14.79	2.83
	M	176	14.76	2.62
Sense of belonging	F	533	15.92	4.24
	M	176	16.20	3.95
Social awareness	F	533	23.29	3.72
	M	176	21.65	3.57
Self-management	F	533	25.92	4.60
	M	176	24.76	4.48
Self-efficacy	F	533	17.11	3.78
	M	176	17.36	3.38

middle and high school students in Europe. The Panorama Education scales are part of a systemic approach that is widely used in many American schools and are used as a monitoring tool in schools interested in applying a systemic SEL approach (Gehlbach and Hough, 2018; Kautz et al., 2019).

The study shows that the psychometric properties of the adapted scales are adequate: the instrument applied in the Italian context shows that these 5 scales correlate with each other as in the original version (Panorama Education, n.d.). Nevertheless some of these items showed a different behavior than expected, and for this reason they were eliminated. We can assume that one of the reasons why these items showed lower factor loadings in the confirmatory factor analysis is partly because their wording was interpreted differently by the Italian students who participated in the study; after these items were removed, the fit indices improved.

In general, most of the associations between the constructs for the two populations, American and Italian, show similarities, especially for the Sense of Belonging and for Grit and how these relate to other constructs. We also find that Self-Efficacy and Self-Management show the strongest association, an association that may have a positive impact on academic achievement, as reported in the results of the District of Columbia's 2019 Panorama survey (DCPS, 2019) and other studies such as in Gehlbach and Hough (2018). These results represent evidence of construct validity of the instrument. On the other hand, however, some differences emerge, particularly in Social Awareness and its relationship to

other constructs within our student population. Amongst these, the association between Sense of Belonging and Social Awareness is interesting, being stronger in the case of Panorama (Panorama Education, 2015, 2016). A possible explanation for this result is that these particular skills are not systematically promoted amongst students in Italian schools, nor is there a systemic approach in the school context, in spite of the existence of projects which do target the development of these skills (Giannotta and Weichold, 2016; Rabaglietti et al., 2021). In addition, the data were collected during the COVID-19 pandemic, an unusual period in which teaching had already taken place at a distance for an extended period of time, which had a particular impact on the relational side of high school students (Guazzini et al., 2022). With fewer interactions in the physical presence of each other, this may have resulted in an overall weaker relationship between Sense of Belonging and level of Social Awareness. Independent of the strength of each of the associations, several studies confirm the association between various SE constructs (Oriol et al., 2017; Malti et al., 2018; Kanopka et al., 2020; Vestad et al., 2021).

Criterion validity was studied by testing for differences in the means between males and females and between middle and high school students. In terms of gender, the Social Awareness and Self-Management scales had higher mean scores for females, which is confirmed by other studies that have used the same scales (Gehlbach and Hough, 2018; Kautz et al., 2021). Duckworth and Seligman (2006) also report higher levels of self-regulation in girls and how this contributes to their better academic performance compared to boys. Other studies confirm that Social Awareness is stronger in females (Mestre et al., 2009; Kågesten et al., 2016). Based on grade level, Social Awareness was greater for high school students, which is also confirmed by other studies (Gaspar et al., 2018; Van der Graaff et al., 2018; West et al., 2018b). It is interesting to note that Social Awareness continued to be important for high school students despite the distance learning context in which students had less interaction with their classmates; it could be argued that this situation actually increased their level of Social Awareness, but further studies are needed to confirm this. In contrast, at lower grade levels, Sense of Belonging and Self-Efficacy were more important. These findings are consistent with studies reporting that Self-Efficacy decreases as grade level increases; however, this may also depend on specific demographic factors such as socioeconomic, cultural, amongst others (West et al., 2018a). Sense of Belonging may have been higher among middle school Italian students because they were physically able to go to school compared to high school students, which meant they had the opportunity to form more meaningful relationships with their classmates.

Based on these findings, we could argue that mastery of these skills during adolescence requires that they be part of a systemic, whole-school approach in which each component of the school community plays an active role in promoting these skills. In addition, as noted earlier, it is important to keep in mind when reading our findings that they were collected during the COVID-19 pandemic, when distance education had been implemented for an

TABLE 5 Difference between groups based on grade level.

	Grade	N	Mean	SD
Grit	MS	192	14.85	2.73
	HS	517	14.76	2.80
Sense of belonging	MS	192	16.69	4.21
	HS	517	15.73	4.13
Social awareness	MS	192	22.07	4.00
	HS	517	23.18	3.61
Self-management	MS	192	25.49	4.93
	HS	517	25.68	4.46
Self-efficacy	MS	192	17.82	3.70
	HS	517	16.93	3.65

extended period of time, portraying a different scenario compared to previous years (Grazzani et al., 2022; Paulus, 2022).

These adaptation/validation results suggest that these scales can be considered a stepping stone for monitoring students' social-emotional skills in the Italian school context. However, as Gehlbach and Hough (2018) state, "validation is a process," so we will continue to collect data to further examine these scales psychometrically to ensure that each scale measures the construct it is intended to measure and, more importantly, that they can be used in a systematic way in schools that wish to adopt a SEL approach.

Conclusion

Our adaptation/validation of 5 scales from Panorama Education in the Italian context is intended as a first step toward measuring and monitoring social-emotional indicators as part of a systemic whole-school SEL approach. These scales can have a dual function at the international and national levels:

First, being a first adaptation of some of the Panorama Education scales in the European context, PE-Iv can contribute to the international discussion on the whole-school SEL approach. Second, specifically in the Italian context, PE-Iv can play a promotional role and motivate schools to adopt this approach.

This may raise awareness of the importance of SEL by relying on actual data, and hopefully, as mentioned earlier, be a step toward this systemic approach (CASEL, 2019; Meyers et al., 2019) which can help students improve academic performance and potentially reduce dropout rates (Kautz et al., 2021; Beccaria et al., 2022). However, this study has some limitations. Since these are new scales for the Italian context, it would have been useful to test the scales on the same population at two different time points. Furthermore, in a future study, we would like to test the scales with different populations and compare them with other scales that measure the same constructs (Kambara et al., 2021).

A whole-school SEL approach is a call to proactively seek ways to provide better opportunities for children and youth, especially in light of pandemic times and their impact on education, which increases the learning gap, especially among disadvantaged populations (Sormunen et al., 2022) including university students (Sulla et al., 2022). In addition, the SEL approach is a way to

reduce inequities (Elias et al., 1997; Gehlbach and Hough, 2018; Allbright et al., 2019).

It is no longer enough for schools to teach content and subject-based instruction. As part of a systemic approach, the use of PE-Iv can extend the findings of the scientific literature on the importance of social-emotional competencies. By bringing a valuable monitoring tool into the classroom and into the daily lives of students, it will be possible to follow the development of social-emotional skills to support adolescents, their future challenges and their mental health.

Data availability statement

The datasets generated for this study are available on request to the corresponding author.

Ethics statement

The studies involving human participants were reviewed and approved by Università degli studi di Torino/Comitato di Bioetica dell'Ateneo. Written informed consent to participate in this study was provided by the participants' legal guardian/next of kin.

Author contributions

LSL and ER contributed to conceptualization, investigation, and formal analysis. MS supervised the final analysis. LSL, ADL, and ER contributed to writing – original draft. LSL, ADL, MS, and ER contributed to writing – review and editing. ER contributed to supervision. All authors contributed to the article and approved the submitted version.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Appendix

Italian version of 5 scales from Panorama Education

Grit (Grinta)

Scegli la risposta più adatta a te:

1. Se non riesci a raggiungere un obiettivo per te importante, quanto è probabile che ci riprovi?
2. Quando stai lavorando su un progetto che significa molto per te, riesci a mantenere la concentrazione se ci sono molte distrazioni?
3. Se hai un problema mentre stai lavorando per un obiettivo importante, quanto riesci a continuare per bene il lavoro?
4. Ci sono alcune persone che riescono a lavorare su un loro obiettivo per molto tempo e altri che invece cambiano spesso i loro obiettivi:

A tuo parere, tra gli obiettivi che hai adesso, quanto è probabile che ce ne sarà almeno uno su cui continuerai a lavorare per i prossimi anni? (Panorama Education item #5)

Sense of Belonging (Senso di Appartenenza)

Di seguito trovi domande su come ti senti all'interno della tua classe ADESSO

1. Quanto, le persone nella tua classe, riescono a capire bene la persona che sei?
2. Quanto ti senti affezionato/a agli insegnanti della tua classe?
3. Quanto sono rispettosi verso di te gli studenti/le studentesse della tua classe?
4. Quanto sei importante per gli altri della tua classe?
5. In generale, quanto ti senti parte/ senti di appartenere alla tua classe?

Social awareness (Consapevolezza Sociale)

Queste domande si riferiscono agli ULTIMI 30 GIORNI e ci aiutano a capire le tue relazioni con gli altri:

1. Quanto attentamente hai ascoltato il punto di vista di altre persone?
2. In generale, quanto hai tenuto conto dei sentimenti di altre persone?
3. Quanto spesso fai i complimenti alle persone che ottengono qualcosa di bello?
4. Quando altri non erano d'accordo con te, quanto sei riuscito/a a rispettare il loro punto di vista? (Panorama Education item #6)
5. In che misura sei riuscito/a a mantenere il tuo punto di vista senza mancare di rispetto agli altri? (Panorama Education item #7)
6. Fino a che punto sei riuscito/a ad essere in disaccordo con gli altri, senza iniziare a litigare? (Panorama Education item #8)

Self-Management (Auto-regolazione)

Le seguenti domande riguardano i tuoi comportamenti e i tuoi atteggiamenti a scuola durante gli ULTIMI 30 GIORNI, scegli la risposta più adatta a te:

Quanto spesso.....

1. ...ti è capitato di arrivare alle tue lezioni preparato/a per una possibile interrogazione?
2. ...hai seguito le indicazioni durante le lezioni quando sono state assegnate?
3.ti è capitato di fare i tuoi compiti subito invece di aspettare fino all'ultimo minuto?
4. ...sei stato/a attento/a senza distrarti?
5. ...sei rimasto/a concentrato/a, quelle volte che hai lavorato da solo/a?
6. ...hai permesso che gli altri finissero di parlare senza interromperli? (Panorama Education item #7)
7. ...sei riuscito/a a tenere sotto controllo la rabbia? (Panorama Education item #10)

Self-Efficacy (Auto-Efficacia)

Quanto spesso ti capita di pensare le cose che seguono?

1. Quanto pensi di riuscire a portare a termine tutti i compiti che ti sono stati dati durante le lezioni?
2. Quando a lezione vengono spiegati concetti difficili, quanto pensi di riuscire a capirli?
3. Quanto pensi di riuscire a imparare tutto quello che insegnano durante le lezioni?
4. Quanto pensi di riuscire a fare i compiti più difficili assegnati durante le lezioni?
5. Quanto pensi di ricordare l'anno prossimo quello che hai imparato a lezione quest'anno?