Editorial: Theory and empirical practice in research on social and emotional skills

Miloš Kankaraš[1]*, Filip de Fruyt[2] and Ricardo Primi[3]

[1]Organisation for Economic Co-Operation and Development, Paris, France, [2]Department of Developmental, Personality and Social Psychology, Faculty of Psychology and Educational Sciences, Ghent University, Ghent, Belgium, [3]Universidade São Francisco (USF), São Paulo, Brazil

Editorial on the Research Topic
Theory and empirical practice in research on social and emotional skills

Introduction to the Research Topic

Social and emotional skills—also called non-cognitive skills, soft skills, character strengths, etc.—have drawn increasing attention from policymakers, practitioners and researchers over recent years. Our ability to manage our emotions, connect with others in a respectful and meaningful way, act responsively and understand and appreciate others' points of view are essential in successfully navigating our social worlds. The importance of these capacities was further amplified by several global trends that are fundamentally reshaping the social fabrics and interpersonal relationships. These include growing inter-connectivity, population diversity, complexity and variability of job requirements, the ever-accelerating pace of technological changes, the dismantling of old social networks, etc. The unprecedented social changes introduced by the COVID-19 pandemic have also shown the critical role these skills have in people's ability to adjust to new social and professional situations. With the expected continuation of current societal and technological trends, these skills will likely become even more pivotal in the future (hence they are sometimes also called "21st-century skills").

Research on social and emotional skills is multi-disciplinary, combining a unique mix of academic and practice-oriented research approaches. It features both theoretical and empirical research streams, with lively discussions on the conceptual foundation and structure of these skills, their origin, development, malleability, and relevance. In this Research Topic, we have tried to reflect the diversity of the field's perspectives,

disciplines, and methodological approaches and its unique blend of research and policy. The Research Topic contains empirical and theoretical works representing both streams of research on social and emotional skills. It also presents both academic and practice-oriented studies on a variety of topics in the field. Still, studies presented in this Research Topic place a particular emphasis on the issue of the application of gathered academic knowledge in educational settings. Selected studies do so either through examining current states, developing policy interventions, or evaluating their effectiveness.

Studies presented in this Research Topic examine the concept of social and emotional skills and their malleability and main determinants. The effectiveness of intervention programmes designed for the improvement of these skills is also analyzed. A particular emphasis is placed on the issue of the application of gathered knowledge in educational settings. Finally, several articles investigate the issue of valid and reliable assessment of these skills and the new developments in this aspect. Overall, the Research Topic offers a rich set of approaches, perspectives, methodologies and concepts examined and discussed by some of the leading researchers in the field. We hope that this Research Topic will contribute to the current discussions and developments in this lively field of research, offering new insights and ideas for further research.

Description of published articles

Improving classroom communication: The effects of virtual social training on communication and assertion skills in middle school students

This article (Johnson et al.) focuses on one of the key policy premises regarding social and emotional skills—their potential to improve students' learning in academic settings. The study examined the possibility of improving educational processes and outcomes by training students' social and emotional skills. Findings showed that the use of the training in a virtual social environment could positively impact students' social confidence and behavior in the classroom. The special importance of this study is the possibility of successful training of social skills in an age group in which anxiety, social anxiety, and difficulties in interacting with peers develop very frequently. The involvement of teachers and innovative use of digital technologies are other promising aspects of this study.

Teaching socio-emotional competencies among primary school students

This is another study exploring the possibility of developing social and emotional skills in school settings through formal

training programs (Santamaría-Villar et al.). Such studies are badly needed in this area as robust evaluations of intervention programs that aim developing students' social and emotional skills are still relatively scarce. Nevertheless, the study findings are positive, with the designed educational program leading to improvements in social behaviors of third-grade students, accompanied by improved awareness of aggressive behaviors in school and greater coexistence among students. Another important aspect of this study is that the intervention itself-—15 lessons in the form of school classes—is applicable and practical for a wide variety of school contexts.

Social, emotional, and behavioral skills: An integrative model of the skills associated with success during adolescence and across the life span

The authors of this paper offer a new, innovative and thought-provoking understanding of social and emotional skills and how they develop and correspond with various life outcomes. The article (Napolitano et al.) describes a new conceptualization of social, emotional, and behavioral skills outlined in an integrative model encompassing five related functioning domains. The paper discusses some of the key questions related to these concepts, such as their relations with personality traits, the distinction between maximum performance vs. typical performance perspective, skills' developmental trajectories and milestones, their practical importance, etc. One of the interesting features of the suggested model is that it includes only those skills that are found to be malleable throughout life, thus representing a very relevant framework from the policymaking point of view.

Toward a model of personality competencies underlying social and emotional skills: Insight from the circumplex of personality metatraits

This article (Cieciuch and Strus) offers an interesting and thorough theoretical analysis and conceptualization of social and emotional skills. The authors engage in an in-depth examination of various theoretical issues with no hesitation and with the required knowledge and expertise. Readers have a chance to familiarize themselves with a plethora of conceptual approaches and main issues in this area. Authors introduce their model and argue convincingly for the newly introduced theoretical solutions. Interested readers will have plenty of "food for thought" after reading this paper, hopefully inspiring them to examine some of its main postulates further.

Temperament and school readiness—A literature review

The meta-analytic reviews are a very useful and increasingly used approach in summarizing empirical findings in a particular area of research. In this article (Potmesilova and Potmesil), the authors employ the meta-analytic approach to discern whether temperamental characteristics (here defined through concepts of executive function, effortful control and self-regulation) of children are related to their school readiness. Based on a substantive sample of empirical studies, the authors find that both positive and negative emotionality influence school behavior of children (beneficially or adversely, respectively), especially their ability to focus and, consequently, their learning outcomes. Such findings place special importance on the quality of classroom environments, as discussed in the paper.

Age-specific life skills education in school: A systematic review

Life skill programs developed for adolescents may differ in both the targeted skills and the influencing factors on health and wellbeing they have as their focus (Kirchhoff and Keller). This review summarizes the impact of 18 evaluation studies published between 2007 and 2020. The review is timely and critical because, from a policy perspective, one needs to know what is the most sensitive period for particular skills to be promoted at schools, taking into account adolescents' biological and psychological development and changing environmental dynamics. Most programs start in Grades 5–6 or Grades 7–9, but the development of skills was only studied in a few programs, often demonstrating zero effects but also some positive findings. Objectives of health-oriented programs vary depending on student age. The review closes by identifying several research gaps to improve evidence-based work in this flourishing field.

Impacts of social and emotional learning interventions for teachers on teachers' outcomes: A systematic review with meta-analysis

The growing consideration for the development of students' social-emotional learning also directed the attention to teachers' social-emotional skills. Teachers' professional and personal functioning should be a top priority of policymakers, given the importance of teachers for students' academic achievement and the current dearth of teachers in the labor market due to many professionals leaving the job. This meta-analysis (Oliveira et al.) is the first to summarize social-emotional learning interventions reported in 43 empirical studies targeting the skills of teachers. Results are promising, showing small to medium effects of interventions on both teachers' skills and mental health outcomes. These results strongly encourage the implementation of such interventions in teacher training and development programs to strengthen teachers' personal and professional outcomes.

Equity in social emotional learning (SEL) programs: A content analysis of equitable practices in PreK-5 SEL programs

Although most social-emotional learning programs in education target the development of skills in students to foster collaboration and appreciation of diversity and cultural differences, this does not guarantee that the programs and their background, content and methods reflect the values and experiences of diverse populations. This review (Ramirez et al.) proposes a number of key perspectives that should form the basis and can be integrated into social-emotional learning and practice to align social-emotional learning and educational equity better. It is argued that social-emotional learning should be more than just an appreciation of diversity. It also involves a reciprocal process where diversity and equity affect the core of social-emotional learning programs questioning dominant and oppressing positions also aiming for social justice advocacy and positive identity development for all.

Formative assessment of social-emotional skills using rubrics: A review of knowns and unknowns

Social-emotional learning often involves the use of formative assessment tools to examine students' development of skills. Students' standing on various skills is often monitored using rubrics describing increasing levels of mastery of a skill. This paper (Pancorbo et al.) discusses the requirements for skill rubrics, reviews what we know and should know, and sketches a research agenda on how the reliability and validity of rubrics can be enhanced to better serve formative assessment of social-emotional learning in education.

SENNA inventory for the assessment of social and emotional skills in public school students in Brazil: Measuring both identity and self-efficacy

Although several inventories already exist to assess social-emotional skills in students, most reflect a specific model of social-emotional learning and are developed within Western cultures. The SENNA inventory, however, was developed to assess a comprehensive framework of social-emotional skills in students attending public schools in Brazil (Primi et al.). The inventory assesses skills from a dual perspective, i.e., "how well students can manifest a skill (self-efficacy)" and "how typically they use that skill" (identity). Psychometric data are reported from a large-scale assessment program in Brazil, and techniques to reduce answering tendencies are demonstrated to improve the reliability and structural validity of the assessments.

Two forms of social inequality in students' socio-emotional skills: Do the levels of big five personality traits and their associations with academic achievement depend on parental socioeconomic status?

It is common for policymakers to advocate developing socio-emotional skills to accelerate the learning of disadvantaged students. However, what empirical evidence supports these links between socio-economic status (SES), social and emotional skills and academic achievement? In this paper (Lechner et al.), the underlying assumptions of this argument are made explicit and testable, in a unique contribution to the field. The authors report that their empirical study provides little evidence of the link between social inequality and social and emotional skills, as well as of a differentiable relationship, that is, no evidence that social and emotional skills and achievement are strongly related among socially disadvantaged children. A causal relationship such as this would justify the development of social skills as a means to reduce inequality. Curiously the authors found the opposite effect (a slightly strong association between conscientiousness and achievement for students with high SES). It is an inspirational paper to the studies investigating the interplay between SES, social and emotional skills, and children's achievement.

To score or not to score? A simulation study on the performance of test scores, plausible values, and SEM, in regression with socio-emotional skill or personality scales as predictors

This paper makes an important methodological contribution to determining the correct statistical method to use when estimating factor scores when assessing social and emotional skills. Even though all techniques generate highly correlated scores, indicating that students' order on the skills should be roughly the same regardless of the technique used, the authors demonstrated that different methods are important in terms of criterion validity. That is because some methods suppress correlations with external criteria, which have important policy consequences. A unique feature of this study (Bhaktha and Lechner) is the systematic use of criterion validity for determining the psychometric quality of measures. Generally, this judgment is based on internal structural properties only (reliability and item loadings on the intended factor). The authors recommended Plausible Values or the Structural Equation Method among all the tested methods. This study hopefully will encourage programs to consider criterion validity as a systematic method for studying the psychometric properties of social and emotional skill assessments.

Making space for social and emotional learning in science education

With a practical perspective, this paper offers an original contribution based on a highly arousing experience of learning about arthropods in a biology curriculum. As entomologists and educators, the authors ask, "Can you imagine bringing a tarantula or a large insect into a classroom and students NOT having an emotional response? (p. 2). This study (Ingram et al.) aimed to test the integration of social-emotional learning into the STEM curriculum. The program intends to use the experience to promote social and emotional skills, such as empathy (fostering sympathy not only for the arthropods but for all people with a variety of experiences), self-reflection, self-management, etc. Additionally, it seeks to improve student engagement with STEM courses. Students' qualitative responses were analyzed before and after the program. The results demonstrated that students' emotional reactions shifted from negative to positive, and their engagement with the curriculum improved. Such findings are an interesting and creative demonstration that SEL can be incorporated

into a diverse curriculum not commonly studied in the field of SEL.

Social and emotional learning in preschool settings: A systematic map of systematic reviews

A very important target of the development of social and emotional skills is achieved through early childhood education. This study (Djamnezhad et al.) aimed to identify high-quality systematic reviews of early childhood SEL interventions. Surprisingly, the authors found only two well-designed systematic reviews, leading to the critical conclusion that there are few reviews of SEL interventions in early education. In both reviews, the effect of universal SEL interventions was reported to positively impact several outcomes. However, because of methodological limitations, the authors recommend considering these results as tentative interpretations and suggest that this field is a knowledge gap. Hopefully, this study will encourage the development of sounding reviews of SEL interventions in early childhood.

Author contributions

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

Conflict of interest

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